

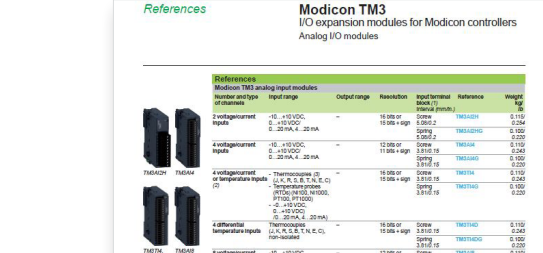
# Variable speed drives

## Altivar Process for Cabinet Integration

A photograph of two male industrial workers in a factory. They are wearing yellow hard hats and blue polo shirts. The worker in the foreground is also wearing safety glasses and is pointing at a tablet held by the second worker. They are both looking intently at the screen. The background is a blurred industrial environment with pipes and machinery. A solid green horizontal bar is overlaid at the bottom of the image, containing white text.

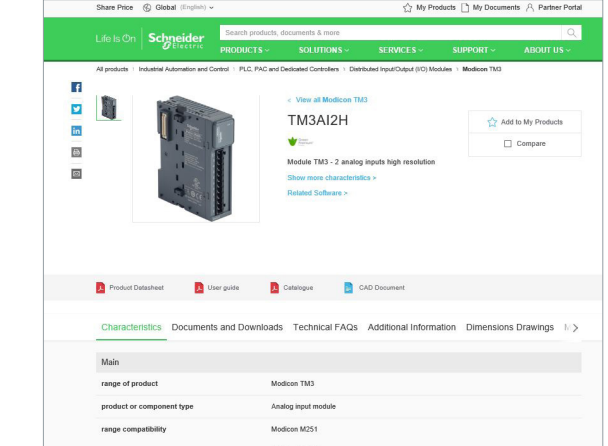
Quick access to product information

Get technical information about your product

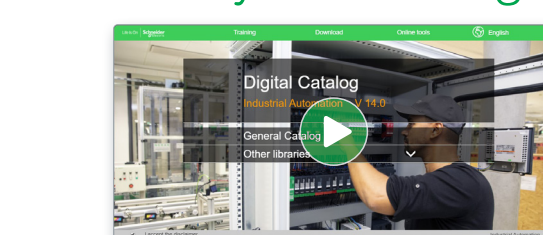


Each commercial reference presented in a catalog contains a hyperlink.  
Click on it to obtain the technical information of the product:

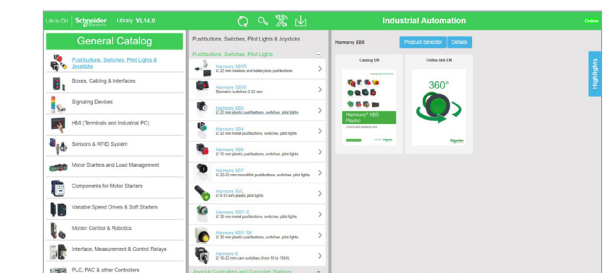
- Characteristics, Dimensions and drawings, Mounting and clearance, Connections and schemas, Performance curves
- Product image, Instruction sheet, User guide, Product certifications, End of life manual



Find your catalog



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- > Consult digital automation catalogs at [Digi-Cat Online](#)

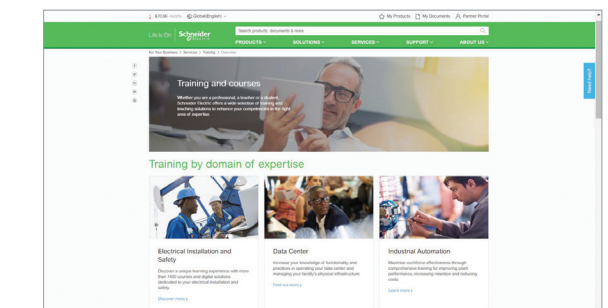


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# Altivar

## Discover [Altivar](#)

Variable speed drives and soft starters

**Altivar** variable speed drives and soft starters deliver top performance in motor control applications across machines, processes, and buildings. With built-in intelligence, these smart connected devices gather and share data to improve operational efficiency, safety, and reliability.

## Explore our offer

- [Altivar](#) Process
- [Altivar](#) Machine
- [Altivar](#) Building
- [Altivar](#) Soft Starters

Life Is On

**Schneider**  
Electric



# Green Premium™

Enhance sustainability with Altivar™ Process drives

Superior environmental performance thanks to upgradability and modernization solutions.

Altivar Process is **RoHS** and **REACH** compliant

- Transparent environment information
- Life Cycle Analysis, compliant with ISO14025
- Circular instructions

Altivar Process drives brings key benefits to our end users in achieving **superior sustainable performance** by enhancing its functionality, performance of capacity, for both, hardware and software.

The **additional hardware options** and the **firmware upgradability** capabilities of the Altivar process help our customers to maximize the process continuity and operation, as well as reducing the operational expenses, by avoiding the change of their drive or the modification of the existing installation, as a retrofit.

## Benefits

- Maximize **process continuity and operation**
- Reduce your **OPEX**
- Easy **scalability** of your Automation system
- **Future-ready** solution for **Industry 4.0**
- Improve **power quality** of your system with a low investment
- Improve the **safety, integration, and performance** of your application
- Optimize your **maintenance cost** and the **Drives Lifetime**



Sustainable  
performance,  
by design

## Communication & Wi Fi Modules

The additional communication modules allow our customers to easily integrate Altivar Process drives in their scalable Automation system. Together with the Wi Fi access point, brings easy access to the real data provided by the drive, helping the digitalization and the easy integration of the drive in the Industry 4.0 technologies.

## Passive Filters\*

The optional passive filter of the Altivar Process brings to customers the possibility to improve their installation's power quality by reducing the harmonics levels, even keeping their existing drives installed.

## Additional I/O & Safety modules\*

The additional I/O and the safety modules help our customers to extend the performance and integration of their application, enhancing at the same time the operators' and machines' safeness.

## Firmware Update & Service expertise

Thanks to our global network of service experts, our customers have the possibility of upgrading the Drive's firmware and modernizing its hardware to extend the Drives lifetime.



Experience the difference today at

[se.com/green-premium](https://se.com/green-premium)

\* For more information regarding the compatibility of these options, please visit us in [se.com/drives](https://se.com/drives)



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## Altivar Process

Provides the efficiency you deserve

Altivar Process is the new comprehensive range of variable speed drives from Schneider Electric, covering the majority of industrial applications with two series:

- > ATV600: drives focused on fluid management and processing and energy saving
- > ATV900: drives focused on maximum productivity with exceptional motor control and connectivity

Depending on customer requirements, Altivar Process drives are available as wall-mounting, floor-standing, and optimized solutions for integration in cabinets.



Wall-mounting drives  
from 0.75 kW up to 315 kW  
(1...500 HP)

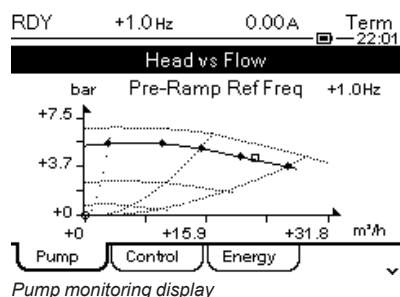


Enclosed drive solutions  
from 0.75 kW up to 2,600 kW  
(1...2,600 HP)

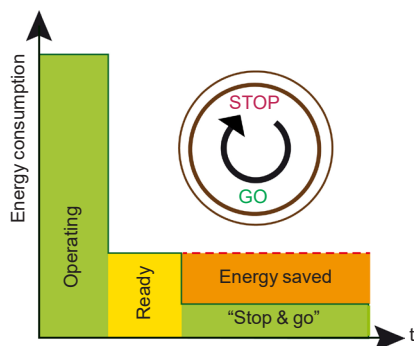


Drives for cabinet integration  
from 0.75 kW up to 2,600 kW  
(1...2,600 HP)

Altivar Process range



Pump monitoring display



«Stop & go» function

## Business optimization

### Optimum monitoring of your process

- > Instant reaction if pump efficiency drops thanks to embedded pump monitoring
- > Notification of critical operating points without additional sensors
- > Process integration with pressure, flow, and level control including compensation of flow losses

### Energy-saving drive solution

- > Up to 30% energy saving when on standby due to the innovative "Stop & Go" operation without additional costs
- > Smart control of the internal fans depending on operation
- > Optimum energy efficiency over the whole life cycle
- > Data logging and graphic display of the power consumption

## Process efficiency

### Motor performance and connectivity

- > Excellent motor performance on any type of motor
- > Ethernet dual port offers maximum services such as connection to the control room and process transparency
- > Network service helps ensure operation continuity even in case of connection breakdown
- > Web server and data logging help to reduce downtime through fast troubleshooting and preventive maintenance

## Altivar Efficiency Calculator

This tool calculates the level of energy efficiency of your variable speed drive according to the Ecodesign standard EN/IEC 61800-9-2.

### > Drive Efficiency (CDM Complete Drive Module)

Drive performance is determined according to 8 operating points considering torque and speed

### > System Efficiency (PDS Power Drive System)

System performance is determined according to 8 operating points considering torque and speed. This includes the efficiency of the variable speed drive and its motor.



Calculate your level of energy efficiency  
with the Altivar Efficiency Calculator



Achilles™ Level2 certified



**ODVA organization:**  
Supports network  
technologies based on  
EtherNet/IP



**FDT Technology:**  
A widely-accepted  
international standard in  
the automation industry

### Real-time intelligence

#### Web server and services via Ethernet

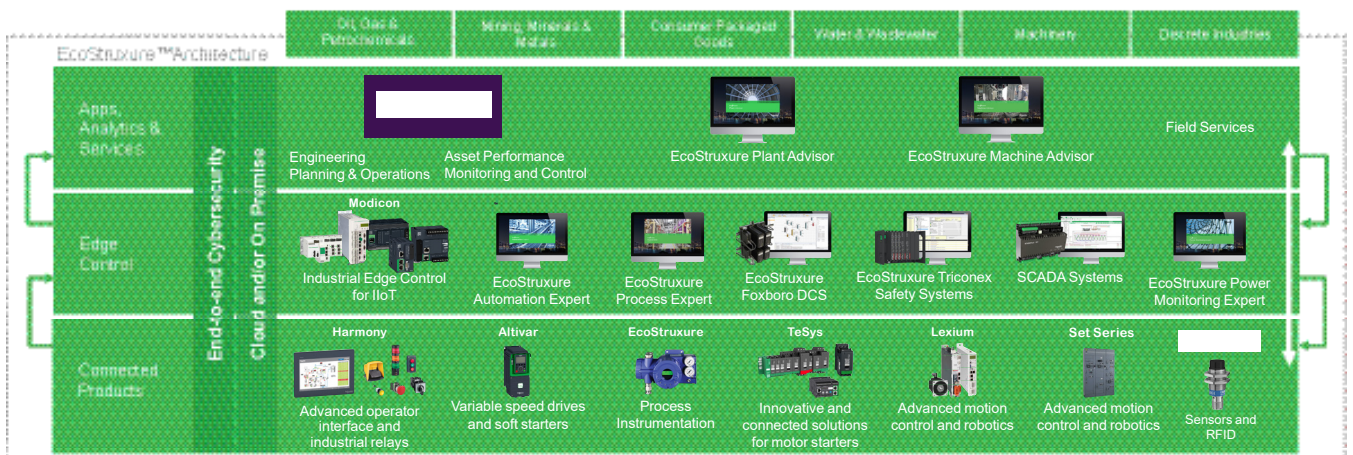
- > Embedded Web server interface based on the Ethernet network gives you process monitoring with your daily working tools.
- > Local and remote access to energy use and customized dashboards means your energy is visible anywhere, any time, on PC, tablet, or smartphone.

### User-friendliness

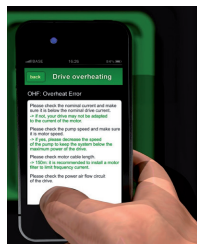
#### Simple integration in controller environments

- > Easy integration thanks to standardized FDT/DTM and ODVA technology
- > Supported by predefined EcoStruxure Control Expert libraries
- > Easy access via PC, tablet, or smartphone
- > Secure connection via "cyber-secure Ethernet"

## EcoStruxure for Industry



Scanning the QR code from a smartphone or tablet



Instant access to online help

### Sophisticated service concept

- > Modular design provides easy spare parts logistics
- > Optimized maintenance costs due to dynamic maintenance schedule, with integrated monitoring of individual components
- > Simple exchange of power modules and fans
- > Quick assistance with dynamic QR codes and Customer Care app

### Green product

#### Designed to have a smaller carbon footprint

- > The Green Premium product label, Schneider Electric's eco-mark, indicates your compliance with international environmental standards such as:
  - RoHS according to European Directive 2011/65 and the delegated Directive (EU) 2015/863
  - REACH according to EU regulation 1907/2006
  - IEC 62635: The end-of-life instructions comply with the latest recycling rules, up to 85% of the product components can be recycled.



(1) The Schneider Electric industrial software business and AVEVA have merged to trade as AVEVA Group plc, a UK listed company. The Schneider Electric and Life is On trademarks are owned by Schneider Electric and are being licensed to AVEVA by Schneider Electric.





Consolidate a powerful range

The Altivar Process Modular offer is designed for easy and cost-effective integration of power-intensive drives into cabinets. From a few number of standard components it is possible to build a large range of air- and liquid cooled drives from 75 up to 2600 kW (125 up to 2,600 HP) in different integration types.

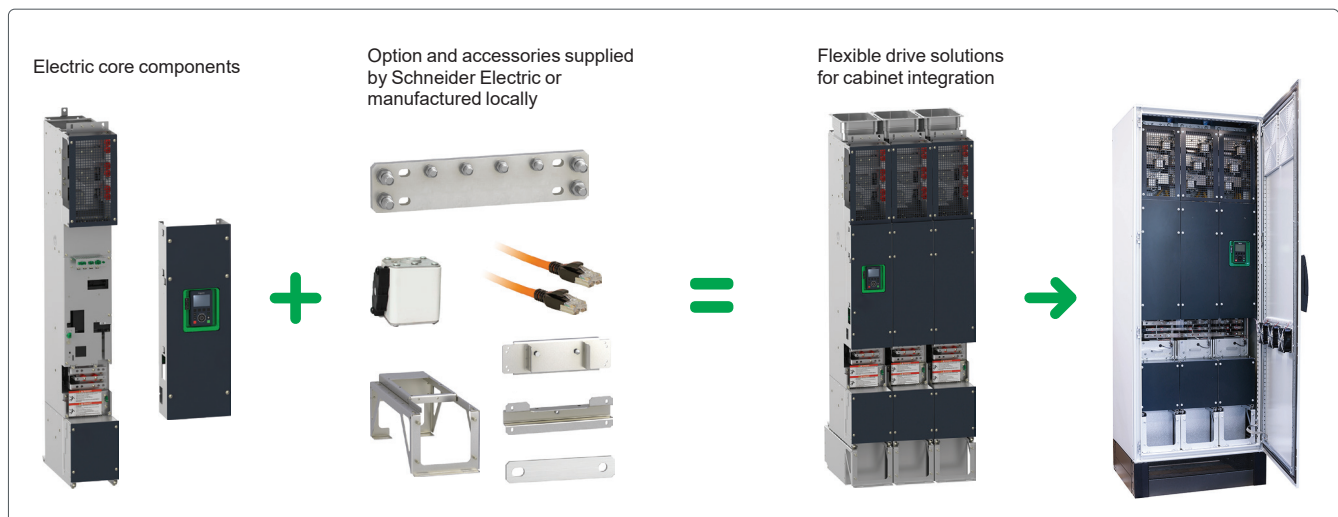
Customers using our Altivar Process Modular offer benefit from all the advanced features of service-oriented Altivar Process ATV600 and ATV900 drives developed for industrial applications such as water & wastewater, mining, minerals & metals, oil & gas, and consumer packaged goods (CPG).

- > ATV600 drives focused on fluid management and processing and energy saving
- > ATV900 drives focused on maximum productivity with exceptional motor control and connectivity

### Modularity

Get more than just a drive with the Altivar Process Modular offer:

- > Standardized and cost-efficient integration
- > Flexibility in cabinet design such as protection rating and incoming supply equipment
- > Prewired, tested electric core components
- > Integrated category C3 EMC filter
- > Reduced harmonics with integrated line choke for Standard drives and less than 3% THDi for Low Harmonic/Regen drives
- > Integrated high-efficiency motor filter reducing the risk of motor winding insulation aging and motor damage even for longer motor cables
- > Ready-to-connect line supply terminals on top and motor terminals at the bottom
- > Reduced downtime of assets thanks to easily changeable electric core components such as power module with wheel (for Standard/Reduced Height drives) and power fan (for Low Harmonic/Regen, Standard and Reduced Height drives) inside a drawer accessible from the front face



Standardized integrated cabinet design

**+** Easy and standardized cabinet integration



Cost-saving solution due to standardization and local production



Fast construction of power connections and control cabling

### Cabinet integration

#### Standardization of integration design for ATV600 and ATV900 solutions

- > ATV600 and ATV900 drive solutions by simply changing the control unit
- > Larger application scope with power rating through module paralleling up to 1800 kW/2500 HP at 400 V supply voltage and up to 2,600 kW/2,600 HP at 690 V supply voltage
- > Reduced engineering workload thanks to standardization
- > Optimized supply chain with standard sub-assembly and kits available ex stock

#### Local production

- > Assembly of Modular drive architectures on sites of qualified partners belonging to Schneider Electric network
- > Altivar Process Modular partners have access to dedicated selection tools, drawings, EPLAN macros, integration manuals, videos, and training material
- > Options and accessories may be supplied by Schneider Electric or manufactured locally

#### Main benefits

- > Cost-saving solution with reduced integration workload (lighter and less space-consuming) and simplified purchasing (optimized number of parts covering all architectures)
- > Reduce lead time to end users thanks to standardized integration design and simple adaptation as per application requirement
- > Enlarge your business scope thanks to simple maintenance of the Altivar Process Modular offer



Compact compared with a standard product



Variable speed drives
Altivar Process Modular
Drives for cabinet integration

|                                                                                              |                                                   |                                                                                                                                                                                                                                                                                 |  |                                   |
|----------------------------------------------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------|
| Market segments                                                                              |                                                   |                                                                                                                                                                                                                                                                                 |  |                                   |
| ■ Water & wastewater ■ Oil & gas ■ Mining, minerals & metals ■ Consumer packaged goods (CPG) |                                                   |                                                                                                                                                                                                                                                                                 |  |                                   |
| ■ Water & wastewater ■ Oil & gas ■ Mining, minerals & metals                                 |                                                   |                                                                                                                                                                                                                                                                                 |  |                                   |
|                                                                                              |                                                   |                                                                                                                                                                                                                                                                                 |  |                                   |
| Mounting type                                                                                | Cabinet integration                               |                                                                                                                                                                                                                                                                                 |  |                                   |
| Drive type                                                                                   | Drive products for cabinet integration            |                                                                                                                                                                                                                                                                                 |  |                                   |
| Degree of protection                                                                         | IP20                                              |                                                                                                                                                                                                                                                                                 |  |                                   |
| Power range for 50...60 Hz line supply                                                       | Three phase: 380...480 V (kW/HP)                  | Modular Standard drives                                                                                                                                                                                                                                                         |  | Modular Low Harmonic/Regen drives |
|                                                                                              | Three-phase: 400 V (kW)                           | IP00                                                                                                                                                                                                                                                                            |  | Modular Liquid-cooled drives      |
|                                                                                              | Three-phase: 440 V (kW)                           | 0.75...90/1...120                                                                                                                                                                                                                                                               |  | –                                 |
|                                                                                              | Three-phase: 480 V (HP)                           | –                                                                                                                                                                                                                                                                               |  | 110...1800                        |
|                                                                                              | Three-phase: 500 (kW)                             | –                                                                                                                                                                                                                                                                               |  | 110...1800                        |
|                                                                                              | Three-phase: 600 (HP)                             | –                                                                                                                                                                                                                                                                               |  | 150...2500                        |
|                                                                                              | Three-phase: 690 (kW)                             | –                                                                                                                                                                                                                                                                               |  | 110...1900                        |
| Drive                                                                                        | Output frequency                                  | 0.1...500 Hz                                                                                                                                                                                                                                                                    |  | 150...2600                        |
|                                                                                              | Control type Asynchronous motor Synchronous motor | Standard constant torque, variable standard torque, optimized torque mode                                                                                                                                                                                                       |  | 160...2600                        |
| Functions                                                                                    | Advanced functions                                | PM (permanent magnet) motor, synchronous reluctance motor                                                                                                                                                                                                                       |  |                                   |
|                                                                                              |                                                   | Including all the advanced features of ATV600 drives:                                                                                                                                                                                                                           |  |                                   |
|                                                                                              |                                                   | ■ Accurate measurement for monitoring system energy consumption (deviation < 5%)                                                                                                                                                                                                |  |                                   |
|                                                                                              | Integrated safety function                        | ■ Installation energy drift detection                                                                                                                                                                                                                                           |  |                                   |
| Number of integrated I/O                                                                     | Number of preset speeds                           | ■ Embedded Ethernet with direct access to system configuration and monitoring                                                                                                                                                                                                   |  |                                   |
|                                                                                              |                                                   | ■ Integration of actual pump curves to optimize the system operating point                                                                                                                                                                                                      |  |                                   |
|                                                                                              |                                                   | ■ Optimized pump monitoring based on actual operating point                                                                                                                                                                                                                     |  |                                   |
|                                                                                              | Number of preset speeds                           | ■ Sensorless estimated flow rate                                                                                                                                                                                                                                                |  |                                   |
| Extended I/O module (optional)                                                               | Relay outputs                                     | ■ Measurements expressed in working units (e.g. m³/h, kWh/m³)                                                                                                                                                                                                                   |  |                                   |
|                                                                                              |                                                   | ■ Limitation of overvoltage at the motor terminals                                                                                                                                                                                                                              |  |                                   |
|                                                                                              |                                                   | ■ Contextual access to technical documentation through dynamic QR code                                                                                                                                                                                                          |  |                                   |
|                                                                                              | Safety function inputs                            | ■ Continuous and historical real-time measurements with customizable dashboards                                                                                                                                                                                                 |  |                                   |
| Extended relay module (optional)                                                             | Relay outputs                                     | ■ Predictive and preventive maintenance tracking functions (e.g. temperatures with PT100/1000 probe, fan monitoring)                                                                                                                                                            |  |                                   |
|                                                                                              |                                                   | ■ Easy setting of drive identification for Altivar Process Modular drives                                                                                                                                                                                                       |  |                                   |
|                                                                                              |                                                   | 1: STO (Safe Torque Off) SIL3                                                                                                                                                                                                                                                   |  |                                   |
|                                                                                              | Option modules                                    | 16                                                                                                                                                                                                                                                                              |  |                                   |
| Communication                                                                                | Option modules                                    | 3: Configurable as voltage (0...10 V) or current (0-20 mA/4-20 mA), 2 of them including probes (PTC, PT100, PT1000, or KTY84)                                                                                                                                                   |  |                                   |
|                                                                                              |                                                   | 6: Voltage 24 V ∴ (positive or negative logic)                                                                                                                                                                                                                                  |  |                                   |
|                                                                                              |                                                   | –                                                                                                                                                                                                                                                                               |  |                                   |
|                                                                                              | Integrated                                        | 2: Configurable as voltage (0...10 V) or current (0-20 mA)                                                                                                                                                                                                                      |  |                                   |
| Configuration and runtime tools                                                              | Option modules                                    | 3: 1 with NO/NC contacts and 2 with NO contacts                                                                                                                                                                                                                                 |  |                                   |
|                                                                                              |                                                   | 2: For safety function STO                                                                                                                                                                                                                                                      |  |                                   |
|                                                                                              |                                                   | 2 differential analog inputs configurable via software as voltage (0...±10 V) or current (0-20 mA/4-20 mA), or for PTC, PT100, or PT1000 2- or 3-wire probes                                                                                                                    |  |                                   |
|                                                                                              | Option modules                                    | 6: Voltage 24 V ∴ (positive or negative logic)                                                                                                                                                                                                                                  |  |                                   |
| Standards and certifications                                                                 | Option modules                                    | 2: Assignable                                                                                                                                                                                                                                                                   |  |                                   |
|                                                                                              |                                                   | 3: NO contacts                                                                                                                                                                                                                                                                  |  |                                   |
|                                                                                              |                                                   | Modbus/TCP, Modbus serial link                                                                                                                                                                                                                                                  |  |                                   |
|                                                                                              | Option modules                                    | Ethernet/IP, Modbus TCP and MD-Link dual port, CANopen daisy chain, SUB-D, and screw terminal block, PROFINET, PROFIBUS DP V1, DeviceNet, BACnet MS/TP, POWERLINK                                                                                                               |  |                                   |
| References                                                                                   | Option modules                                    | Graphic display terminal, embedded Web server, DTM (Device Type Manager), SoMove software                                                                                                                                                                                       |  |                                   |
|                                                                                              |                                                   | 86/188/EEC, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, EN/IEC 61800-3, EN/IEC 61800-5-1, IEC 61000-3-12, IEC 60721-3, IEC 61508, IEC 13849-1, TÜV certification, C€ marking, ATEX 2/22, ATEX 1/21                                               |  |                                   |
|                                                                                              |                                                   | 86/188/EEC, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, EN/IEC 61800-3, EN/IEC 61800-5-1, IEC 60721-3, IEC 13849-1, TÜV certification, C€ marking, cULus, IEC 61508, Marine certification (DNV-GL, ABS, RINA, BV, LR) (1), ATEX 2/22, ATEX 1/21, |  |                                   |
|                                                                                              | Option modules                                    | 86/188/EEC, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, EN/IEC 61800-3, EN/IEC 61800-5-1, IEC 60721-3, IEC 13849-1, TÜV certification, C€ marking, cULus, IEC 61508, ATEX 2/22, ATEX 1/21                                                        |  |                                   |
| Page                                                                                         | Option modules                                    | ATV630●●●N4Z                                                                                                                                                                                                                                                                    |  |                                   |
|                                                                                              |                                                   | ATV6A0●●●●●                                                                                                                                                                                                                                                                     |  |                                   |
|                                                                                              |                                                   | ATV6B0●●●●●                                                                                                                                                                                                                                                                     |  |                                   |
|                                                                                              | Option modules                                    | ATV6L0●●●●●                                                                                                                                                                                                                                                                     |  |                                   |
| Page                                                                                         | Option modules                                    | –                                                                                                                                                                                                                                                                               |  |                                   |
|                                                                                              |                                                   | 36                                                                                                                                                                                                                                                                              |  |                                   |
|                                                                                              |                                                   | 48                                                                                                                                                                                                                                                                              |  |                                   |
|                                                                                              | Option modules                                    | 60                                                                                                                                                                                                                                                                              |  |                                   |

(1) For marine product certificate, please contact your Schneider Electric representative.

Selection guide (continued)

Variable speed drives

Altivar Process Modular

Drives for cabinet integration

|                                        |  |                                                                                                                                                                                                                                   |  |                                                                                                                                                                                                                                                                                |  |
|----------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Market segments                        |  | ■ Oil & gas<br>■ Mining, minerals & metals<br>■ Consumer packaged goods (CPG)<br>■ Water & wastewater                                                                                                                             |  | ■ Water & wastewater<br>■ Oil & gas<br>■ Mining, minerals & metals                                                                                                                                                                                                             |  |
|                                        |  |                                                                                                                                                                                                                                   |  |                                                                                                                                                                                                                                                                                |  |
| Mounting type                          |  | Cabinet integration                                                                                                                                                                                                               |  |                                                                                                                                                                                                                                                                                |  |
| Drive type                             |  | Drive products for cabinet integration                                                                                                                                                                                            |  | Modular Standard drives                                                                                                                                                                                                                                                        |  |
| Degree of protection                   |  | IP20                                                                                                                                                                                                                              |  | IP00                                                                                                                                                                                                                                                                           |  |
| Power range for 50...60 Hz line supply |  | Three-phase: 380...480 V (kW/HP)                                                                                                                                                                                                  |  | 0.75...90/1... 120                                                                                                                                                                                                                                                             |  |
|                                        |  | Three-phase: 400 V (kW)                                                                                                                                                                                                           |  | –                                                                                                                                                                                                                                                                              |  |
|                                        |  | Three-phase: 440 V (kW)                                                                                                                                                                                                           |  | 110...1000                                                                                                                                                                                                                                                                     |  |
|                                        |  | Three-phase: 480 V (HP)                                                                                                                                                                                                           |  | 110...1000                                                                                                                                                                                                                                                                     |  |
|                                        |  | Three-phase: 500 (kW)                                                                                                                                                                                                             |  | 150...1400                                                                                                                                                                                                                                                                     |  |
|                                        |  | Three-phase: 600 (HP)                                                                                                                                                                                                             |  | 75...800                                                                                                                                                                                                                                                                       |  |
|                                        |  | Three-phase: 690 (kW)                                                                                                                                                                                                             |  | 125...1200                                                                                                                                                                                                                                                                     |  |
| Drive                                  |  | Output frequency                                                                                                                                                                                                                  |  | 110...1200                                                                                                                                                                                                                                                                     |  |
|                                        |  | Control type                                                                                                                                                                                                                      |  | 0.1...599 Hz                                                                                                                                                                                                                                                                   |  |
| Functions                              |  | Standard constant torque, variable standard torque, optimized torque mode                                                                                                                                                         |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | PM (permanent magnet) motor, synchronous reluctance motor                                                                                                                                                                         |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | Including all the advanced features of ATV900 drives:                                                                                                                                                                             |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | ■ High-performance motor control with an overload torque up to 180% Tn in an open or closed loop                                                                                                                                  |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | ■ Asynchronous, synchronous, special motors: all efficiency classes, brand independent, permanent magnet motors, torque motors, conical sliding rotor, reluctance motor                                                           |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | ■ Integrated EtherNet/IP and Modbus TCP dual port, cybersecurity (Achilles Level 2)                                                                                                                                               |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | ■ Smart integration in PlantStruxure and Foxboro Evo process automation systems                                                                                                                                                   |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | ■ Optimized energy efficiency, detection of energy consumption drift of the installation                                                                                                                                          |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | ■ Adaptation to the process by dedicated functions with modular design                                                                                                                                                            |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | ■ Embedded safety functions STO SIL3                                                                                                                                                                                              |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | ■ Master/slave and load sharing with drive-to-drive capability:                                                                                                                                                                   |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | □ torque sharing on rigid coupling                                                                                                                                                                                                |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | □ torque sharing on elastic coupling                                                                                                                                                                                              |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | ■ Contextual access to technical documentation through dynamic QR code                                                                                                                                                            |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | ■ Continuous and historical real-time measurements with customizable dashboards                                                                                                                                                   |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | ■ Predictive maintenance (e.g. temperatures with PT100/1000 probe, fan monitoring, etc.)                                                                                                                                          |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | ■ Easy setting of drive identification                                                                                                                                                                                            |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | 1: STO (Safe Torque Off) SIL3                                                                                                                                                                                                     |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | 16                                                                                                                                                                                                                                |  |                                                                                                                                                                                                                                                                                |  |
| Number of integrated I/O               |  | 3: 2 configurable as voltage (0...10 V) or current (0-20 mA/4-20 mA), including probes (PTC, PT100, PT1000, or KTY84), and 1 configurable as voltage (0...±10 V)                                                                  |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | 8: Voltage 24 V ⎓ (positive or negative logic)                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | 1: Assignable, can be used as PTO (pulse train output)                                                                                                                                                                            |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | 2: Configurable as voltage (0...10 V) or current (0-20 mA)                                                                                                                                                                        |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | 3: 1 with NO/NC contacts and 2 with NO contacts                                                                                                                                                                                   |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | 2: For safety function STO                                                                                                                                                                                                        |  |                                                                                                                                                                                                                                                                                |  |
| Extended I/O module (optional)         |  | 2 differential analog inputs configurable via software current (0-20 mA/4-20 mA), or for PTC, PT100, or PT1000 2- or 3-wire probes                                                                                                |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | 6: Voltage 24 V ⎓ (positive or negative logic)                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | 2: Assignable                                                                                                                                                                                                                     |  |                                                                                                                                                                                                                                                                                |  |
| Extended relay module (optional)       |  | 3: NO contacts                                                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  |                                                                                                                                                                                                                                   |  |                                                                                                                                                                                                                                                                                |  |
| Communication                          |  | EtherNet/IP, Modbus/TCP Dual port, Modbus serial link                                                                                                                                                                             |  |                                                                                                                                                                                                                                                                                |  |
|                                        |  | CANopen daisy chain, SUB-D, and screw terminal block, PROFINET, PROFIBUS DP V1, DeviceNet, EtherCAT, POWERLINK                                                                                                                    |  |                                                                                                                                                                                                                                                                                |  |
| Configuration and runtime tools        |  | Graphic display terminal, embedded Web server, DTM (Device Type Manager), SoMove software                                                                                                                                         |  |                                                                                                                                                                                                                                                                                |  |
| Standards and certifications           |  | 86/188/EEC, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, EN/IEC 61800-3, EN/IEC 61800-5-1, IEC 61000-3-12, IEC 60721-3, IEC 61508, IEC 13849-1, TÜV certification, C€ marking, ATEX 2/22, ATEX 1/21 |  | 86/188/EEC, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, EN/IEC 61800-3, EN/IEC 61800-5-1, IEC 60721-3, IEC 61508, Marine certification (DNV-GL, ABS, RINA, BV, LR) (1), IEC 13849-1, TÜV certification, C€ marking, cULus, ATEX 2/22, ATEX 1/21 |  |
| References                             |  | ATV930●●●N4Z                                                                                                                                                                                                                      |  | ATV9A0●●●●●                                                                                                                                                                                                                                                                    |  |
| Page                                   |  | –                                                                                                                                                                                                                                 |  | 49                                                                                                                                                                                                                                                                             |  |

(1) For marine product certificate, please contact your Schneider Electric representative.

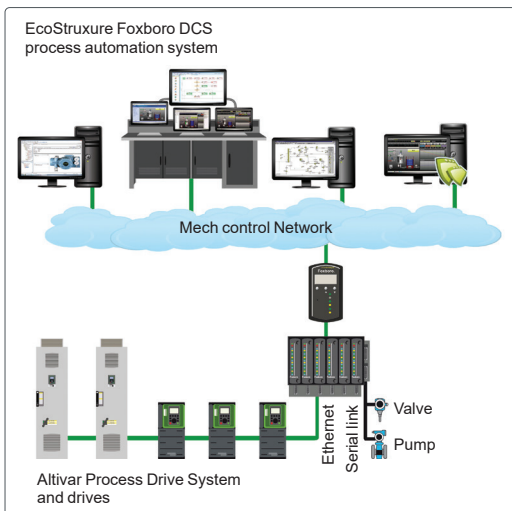


Altivar Process Modular range

### Process

Altivar Process drives are specifically designed to meet the requirements of the following market segments:

- Water & wastewater
- Oil & gas
- Mining, minerals & metals
- Consumer packaged goods (CPG)



Altivar Process in EcoStruxure Foxboro DCS architecture

### EcoStruxure Plant™ integration

The association of Altivar Process services with Schneider Electric process automation control systems like EcoStruxure Foxboro DCS (for process systems) or EcoStruxure Hybrid DCS (for hybrid systems) offers a high-performance, global automation and motor control solution with optimized total cost of ownership (TCO).

The solution provides operational integrity for people, processes, and assets, with improved maintenance support to help reduce downtime and ensure operation continuity.

It offers operational insight by accessing more information to optimize the process and control energy efficiency.

Based on market standards (FDT/DTM, Ethernet, etc.), it is a sustainable, scalable solution that enables processes to be adapted easily and affordably.



### Water & wastewater applications

- Pumping
- Drilling
- Suction
- Dosing
- Odor control
- Ventilation
- Gas compression
- Treatment plant
- Wastewater treatment
- Sludge removal

### Use

- Pumping station and storage tank
- Irrigation
- Treatment plant
- Desalination plant
- Storage and booster station
- Housing
- Wastewater lift station
- Wastewater treatment
- Discharge back into the environment, land application
- Decanter





### Process (continued)

#### Oil & gas applications

- Hydrocarbon production:
  - Drilling
  - Offshore and onshore extraction
  - Water treatment and re-injection
  - Crude oil storage
  - Separation
  - Pipeline pumping
  - Storage
  - Refining
  - DOF (digital oil field)

#### Use

- Pumps:
  - Submersible
  - Hydraulic
  - Pipeline
  - Reverse flow
  - Water injection
  - Kerosene
- PCP (progressive cavity pump)
- ESP (electrical submersible pump)
- Rod pump
- Mud pump
- Rotary table, top drive
- Draw works
- Regasification compressors
- Refining:
  - Fans
  - Compressors

#### Mining, minerals & metals applications

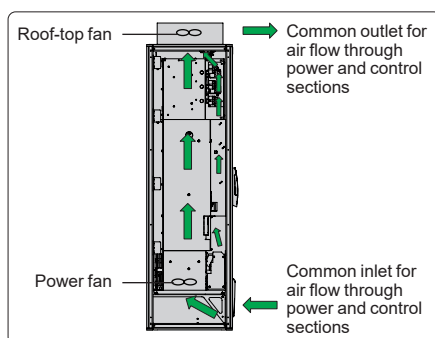
- Flotation and thickening
- Rinsing and filtration
- Mine shaft pumping
- Preheater fan
- Waste gas evacuation
- Cooling fan
- Separator for vertical roller mill
- Storage and loading
- Water supply
- Pumping
- Drying fans
- Open-pit or underground mining
- Stockpiling/homogenization
- Concentration/mineral separation
- Solid-liquid separation
- Final handling/transport
- Clinker production
- Cement production

#### Use

- Conveyors
- Grinders
- Mixers
- Pumps
- Tunnel boring machines
- Long-distance heavy conveying
- Bucket wheel excavator
- Special cranes:
  - Gantry cranes
  - Grab cranes
- Grinding mills (ball mills, SAG and AG mills)
- Spiral and magnetic separators
- Reclaimers and stackers
- Ship loaders
- Mobile mining machines
- Vibro feeders
- Crushers
- Long belt conveyors
- Kiln main drives
- Separators for VRM (vertical roller mills)



Modular drive architecture with 2 power modules from 200 kW to 315 kW on 400 V supply



IP21/UL Type1 integration with a common cooling air flow

### Process (continued)

#### Consumer packaged goods (CPG) applications

- Pumping
- Drying fans
- Dairy beverage
- Agribusiness

#### Use

- Conveyors
- Mixers
- Centrifuges
- Pumps
- Extruders
- Shredders
- Centrifuges
- Hot rotary dryers

### General presentation of the offer

Altivar Process drives can help improve equipment performance and reduce operating costs by optimizing energy consumption and user comfort.

Altivar Process drives provide a wide range of integrated functions, such as:

- Safety and automation functions that meet the requirements of some of the most demanding applications
- Various optional communication modules available for seamless integration into the main automation architectures
- Numerous configurable I/O as standard to facilitate adaptation to specific applications
- Intuitive commissioning using the graphic display terminal and SoMove commissioning software
- Local and remote access and monitoring using the embedded Web server
- Energy savings and protection of the grid by means of integrated harmonic filters
- Installation EMC conformity by means of integrated EMC filters

Altivar Process Modular drives are designed for IT systems.

### Modular drive

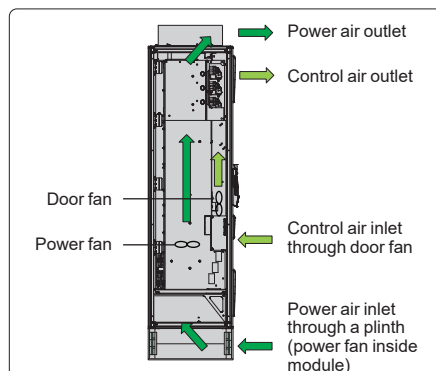
Altivar Process Modular is ready to build into cabinets to create high-power drive solutions with minimum dimensions that withstand harsh environments.

Altivar Process Modular brings a new approach with sub-assemblies to build drives locally:

- A power module section to be combined in different drive architectures. Each architecture covers several drive power ranges, set at the discretion of the integrator by using SoMove commissioning software
- Control units that make the drive family differentiation of the power architecture between ATV600 and ATV900 families
- Optional kits and accessories that can be supplied by Schneider Electric or manufactured locally
- Altivar Process Modular Standard drives can be designed as Reduced Height versions for integration in 1.6 m/5.25 ft cabinets
- Liquid-cooled modules to create high-power drive solutions that withstand harsh environments

Altivar Process Modular drives are designed to operate on IT and corner-grounded (1) systems.

Altivar Process Modular drives can also be supplied as Engineered Drive System variants from 75 to 2600 kW (125...2600 HP), developed by Schneider Electric based on customer specifications. For more information, please contact your Schneider Electric supplier.



IP54/UL Type 12 integration with a separate cooling air flow

### General presentation of the offer (continued)

#### Cabinet integration (air-cooled)

Altivar Process Modular brings flexible solutions for special integration constraints as well as standard integration in 2 m/6.56 ft height and 600 mm/23.62 in. depth cabinets with IP21 (UL Type 1)/IP54 (UL Type 12) protection rating.

The Altivar Process Modular drives offer consists of:

- Drive power and control modules
- Semiconductor protection fuses
- Line chokes to limit THDi levels for the Standard version and less than 3% THDi for the Low Harmonic/Regen version
- A filter to help protect the motor against the effects of dv/dt
- Accessible terminals to simplify the motor wiring and power wiring

IP21 (UL Type 1) integration type creates a common cooling air flow for the power and control sections.

The IP54 (UL Type 12) integration mechanical kit introduces a system for separating the cooling air flow between the power and control sections, allowing operation in a highly polluted environment as well as optimum management of thermal stress in the plant room.

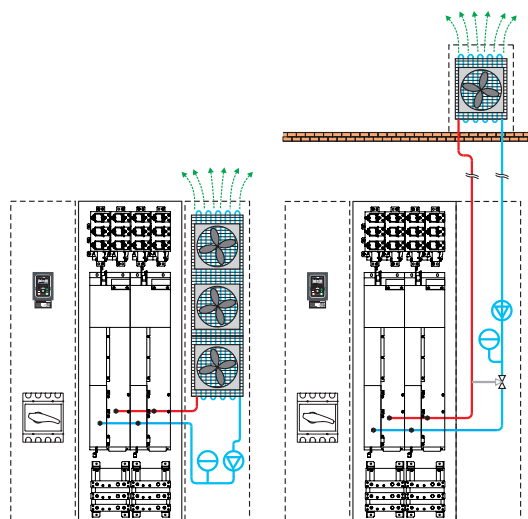
#### Cabinet integration (liquid-cooled)

Altivar Process liquid-cooled drives for cabinet integration offer a modular high-power solution for installation in cabinets and separate enclosures. Thanks to the optimized liquid cooling concept, these drives are suitable for operation in a very harsh environment.

The integrated liquid cooling allows optimal dissipation of the heat losses and therefore optimizes the encapsulation of the whole drive unit. Its robust design meets the requirements for applications in harsh environments and provides protection up to IP66.

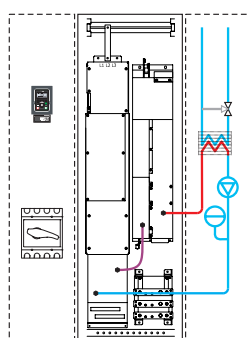
Ideally suited to customer needs with flexible cooling concepts:

- Air-cooled drive with internal liquid/air heat exchanger
- Air-cooled drive with external liquid/air heat exchanger to dissipate the heat losses out of the operating room
- Liquid-cooled drive with liquid/liquid heat exchanger, encapsulated solution for harsh environment and "low noise" requirements



IP23 air-cooled design with internal liquid/air heat exchanger

IP23 with external air heat exchanger



Up to IP66 with liquid/liquid heat exchanger

#### Optimized cabinet design

Altivar Process Modular liquid-cooled drives bring flexible solutions for special integration constraints with a 6- or 12-pulse supply and robust design with two offers:

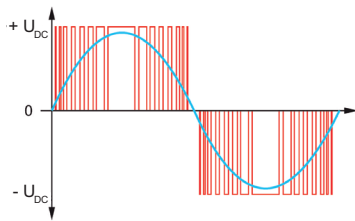
- **Universal:** Suitable for all kind of grids with integrated mains choke ( $\text{THDi} \leq 48\%$  at 6-pulse or  $\text{THDi} \leq 9\%$  at 12-pulse supply at 80 to 100% load)
- **Compact:** Optimized with dedicated transformer for most compact dimensions

(1) Only Standard Modular drives for 380...480 V supply are compatible with corner-grounded systems.

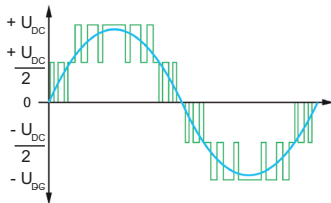




Low Harmonic/Regen drive architecture with 2 power modules



2-level technology



3-level technology



Braking unit module

### General presentation of the offer (continued)

#### Low Harmonic/Regen drives

The Low Harmonic/Regenerative drives are used when drives need to generate particularly low harmonics on the mains.

In addition, Low Harmonic/Regen drives are capable of feeding energy back to the mains, enabling a 4Q operation and improving overall application efficiency.

In comparison with commonly-used 2-level AFE (active front end) architectures, the 3-level technology of Altivar Process Modular Low Harmonic/Regen drives allows this new technology to reach a total distortion factor (THDi) of around 2% and thus fulfills the requirements of standard IEEE 519 for a THDi < 5% in case of distorted mains. Additionally, the  $\cos \Phi \approx 1$  in each load situation (from 30 % Pn) helps to reduce the line supply load.

The Low Harmonic/Regen drives range is an optimum solution for energy efficiency and process optimization.

#### Device features

##### Enhanced motor service life due to the 3-level concept

The 3-level AIC (active infeed converter) technology reduces the voltage load at the motor significantly, compared with other low harmonic frequency inverters. The fluctuating adaptation of the DC link voltage helps to extend the motor service life.

##### Reduced losses due to the 3-level concept

In comparison with the traditional circuit structure of active mains rectifiers, the switching frequency is increased and the current load is reduced at the same time when using 3-level technology.

##### Compact dimensions due to the 3-level concept

A significant advantage of the 3-level technology is the reduced size of the integrated filter. Due to the increased switching frequency and its location inside the forced cooling air channel, the dimensions of the filter can be almost halved.

#### Braking units

##### Same integration process as standard power module

Braking units and standard power modules have the same frame and size. They use the same integration kits and DC bus bar kits.

##### Compliant with Standard and Low Harmonic/Regen drives

Braking units can be built for APM Standard drives, APM Reduced Height drives and Low Harmonic/Regen APM drives with an ATV900 control unit.

##### Compliant with any APM integration type

- Standard integration in 2 m/6.56 ft high cabinets
- Reduced Height integration in 1.6 m/5.25 ft high cabinets
- IP21/UL Type 1 with a common cooling air flow
- IP54/UL Type 12 with a separate cooling air flow

##### Advanced functions with ATV900

- With Standard drives:
  - Full braking torque also in overload range
  - Shortening and monitoring of deceleration time, such as for long travel application
  - Temporary regenerative load, such as for hoist applications
- With Low Harmonic/Regen drives:
  - Braking operation when Energy regeneration is not possible

Panel Builder - Selection tool

Version 45

Life is On Schneider Electric

Drive selection:

Select Drive type: **ATV 600**

Voltage: **480 V**

Typical motor rating Pn (kW/HP): **1500 / 2.02 kW**

Integration IP rating: **IP 54**

Drive selection

Create part list

Selected Drive: **ATV6A0C16R4**

| Part | Description | Quantity | Unit | Part | Description | Quantity | Unit |
|------|-------------|----------|------|------|-------------|----------|------|
| 1    | ATV6A0C16R4 | 1        | Unit | 2    | ATV6A0C16R4 | 1        | Unit |
| 3    | ATV6A0C16R4 | 1        | Unit | 4    | ATV6A0C16R4 | 1        | Unit |
| 5    | ATV6A0C16R4 | 1        | Unit | 6    | ATV6A0C16R4 | 1        | Unit |
| 7    | ATV6A0C16R4 | 1        | Unit | 8    | ATV6A0C16R4 | 1        | Unit |
| 9    | ATV6A0C16R4 | 1        | Unit | 10   | ATV6A0C16R4 | 1        | Unit |
| 11   | ATV6A0C16R4 | 1        | Unit | 12   | ATV6A0C16R4 | 1        | Unit |
| 13   | ATV6A0C16R4 | 1        | Unit | 14   | ATV6A0C16R4 | 1        | Unit |
| 15   | ATV6A0C16R4 | 1        | Unit | 16   | ATV6A0C16R4 | 1        | Unit |
| 17   | ATV6A0C16R4 | 1        | Unit | 18   | ATV6A0C16R4 | 1        | Unit |
| 19   | ATV6A0C16R4 | 1        | Unit | 20   | ATV6A0C16R4 | 1        | Unit |
| 21   | ATV6A0C16R4 | 1        | Unit | 22   | ATV6A0C16R4 | 1        | Unit |
| 23   | ATV6A0C16R4 | 1        | Unit | 24   | ATV6A0C16R4 | 1        | Unit |
| 25   | ATV6A0C16R4 | 1        | Unit | 26   | ATV6A0C16R4 | 1        | Unit |
| 27   | ATV6A0C16R4 | 1        | Unit | 28   | ATV6A0C16R4 | 1        | Unit |
| 29   | ATV6A0C16R4 | 1        | Unit | 30   | ATV6A0C16R4 | 1        | Unit |
| 31   | ATV6A0C16R4 | 1        | Unit | 32   | ATV6A0C16R4 | 1        | Unit |
| 33   | ATV6A0C16R4 | 1        | Unit | 34   | ATV6A0C16R4 | 1        | Unit |
| 35   | ATV6A0C16R4 | 1        | Unit | 36   | ATV6A0C16R4 | 1        | Unit |
| 37   | ATV6A0C16R4 | 1        | Unit | 38   | ATV6A0C16R4 | 1        | Unit |
| 39   | ATV6A0C16R4 | 1        | Unit | 40   | ATV6A0C16R4 | 1        | Unit |
| 41   | ATV6A0C16R4 | 1        | Unit | 42   | ATV6A0C16R4 | 1        | Unit |
| 43   | ATV6A0C16R4 | 1        | Unit | 44   | ATV6A0C16R4 | 1        | Unit |
| 45   | ATV6A0C16R4 | 1        | Unit | 46   | ATV6A0C16R4 | 1        | Unit |
| 47   | ATV6A0C16R4 | 1        | Unit | 48   | ATV6A0C16R4 | 1        | Unit |
| 49   | ATV6A0C16R4 | 1        | Unit | 50   | ATV6A0C16R4 | 1        | Unit |
| 51   | ATV6A0C16R4 | 1        | Unit | 52   | ATV6A0C16R4 | 1        | Unit |
| 53   | ATV6A0C16R4 | 1        | Unit | 54   | ATV6A0C16R4 | 1        | Unit |
| 55   | ATV6A0C16R4 | 1        | Unit | 56   | ATV6A0C16R4 | 1        | Unit |
| 57   | ATV6A0C16R4 | 1        | Unit | 58   | ATV6A0C16R4 | 1        | Unit |
| 59   | ATV6A0C16R4 | 1        | Unit | 60   | ATV6A0C16R4 | 1        | Unit |
| 61   | ATV6A0C16R4 | 1        | Unit | 62   | ATV6A0C16R4 | 1        | Unit |
| 63   | ATV6A0C16R4 | 1        | Unit | 64   | ATV6A0C16R4 | 1        | Unit |
| 65   | ATV6A0C16R4 | 1        | Unit | 66   | ATV6A0C16R4 | 1        | Unit |
| 67   | ATV6A0C16R4 | 1        | Unit | 68   | ATV6A0C16R4 | 1        | Unit |
| 69   | ATV6A0C16R4 | 1        | Unit | 70   | ATV6A0C16R4 | 1        | Unit |
| 71   | ATV6A0C16R4 | 1        | Unit | 72   | ATV6A0C16R4 | 1        | Unit |
| 73   | ATV6A0C16R4 | 1        | Unit | 74   | ATV6A0C16R4 | 1        | Unit |
| 75   | ATV6A0C16R4 | 1        | Unit | 76   | ATV6A0C16R4 | 1        | Unit |
| 77   | ATV6A0C16R4 | 1        | Unit | 78   | ATV6A0C16R4 | 1        | Unit |
| 79   | ATV6A0C16R4 | 1        | Unit | 80   | ATV6A0C16R4 | 1        | Unit |
| 81   | ATV6A0C16R4 | 1        | Unit | 82   | ATV6A0C16R4 | 1        | Unit |
| 83   | ATV6A0C16R4 | 1        | Unit | 84   | ATV6A0C16R4 | 1        | Unit |
| 85   | ATV6A0C16R4 | 1        | Unit | 86   | ATV6A0C16R4 | 1        | Unit |
| 87   | ATV6A0C16R4 | 1        | Unit | 88   | ATV6A0C16R4 | 1        | Unit |
| 89   | ATV6A0C16R4 | 1        | Unit | 90   | ATV6A0C16R4 | 1        | Unit |
| 91   | ATV6A0C16R4 | 1        | Unit | 92   | ATV6A0C16R4 | 1        | Unit |
| 93   | ATV6A0C16R4 | 1        | Unit | 94   | ATV6A0C16R4 | 1        | Unit |
| 95   | ATV6A0C16R4 | 1        | Unit | 96   | ATV6A0C16R4 | 1        | Unit |
| 97   | ATV6A0C16R4 | 1        | Unit | 98   | ATV6A0C16R4 | 1        | Unit |
| 99   | ATV6A0C16R4 | 1        | Unit | 100  | ATV6A0C16R4 | 1        | Unit |

Selection tool for Altivar Process Modular

## Altivar Process Modular

Drive Integration Partner Program



## General presentation of the offer (continued)

### Selection tool for Altivar Process Modular

The Selection tool is an intuitive guide for defining the parts list and specification list to build Altivar Process Modular drives.

It is used to:

- Design the correct Modular drive architecture according to the application needs by simply choosing the drive type, protection rating, cabinet type and supplier, supply voltage, and power rating
- Obtain the parts list containing the power modules, control units, mechanical accessories, options, and specifications and their required quantity
- Customize the parts list with project details and additional materials

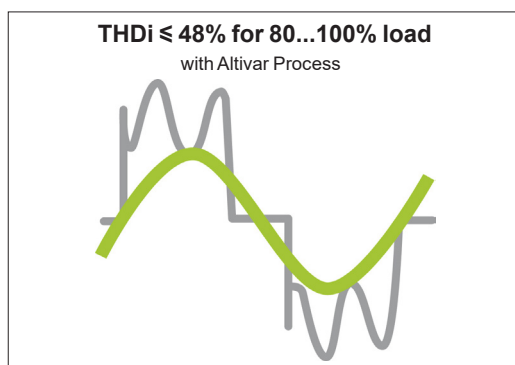
The tool is accessible to registered partners of Altivar Process Modular through the download area of [mySchneider partner portal](#).

### Altivar Process Modular Partner Program

The Altivar Process Modular offer is dedicated to partners building ATV600 and ATV900 high-power drive solutions.

This offer enhances our partners as they are able to:

- Build customized panels and high-power drive solutions by paralleling drive modules up to 1800 kW (2500 HP) in 380...480 V supply voltage and 2600 kW (2600 HP) in 500...690 V supply voltage
- Assemble the final drive and perform panel integration
- Benefit from the standardized way of drive integration using the modular concept
- Perform the final power setting and drive registration
- Order/produce mechanical options for integration locally
- Access the download area of the partner portal and find all the relevant technical documents, including mechanical specifications
- Access service training material for commissioning, assembly, and after-sales services
- Become a Schneider Electric recognized trained and registered drive integration partner

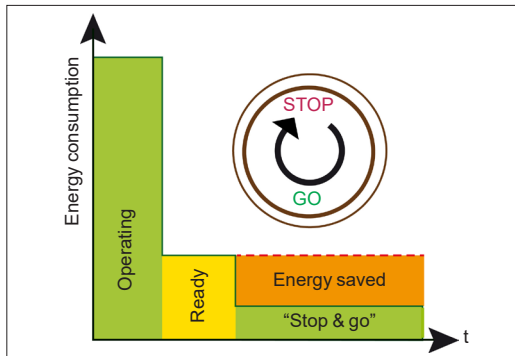


Altivar Process drive THDi

### Rugged

Altivar Process Modular drives are designed to adapt to the harshest environments.

- Ambient operating temperature
- Temperature without derating:
  - 10...40 °C/14...104 °F for Altivar Process Modular Standard (air- and liquid-cooled)
  - 5...40 °C/23...104 °F for Altivar Process Modular Low Harmonic/Regen
- Temperature with derating of output power: < 50 °C/< 122 °F
- Relative humidity without condensing: 5...95%
- Storage and transport temperature: -40...+70 °C/-40...+158 °F
- Operating altitude:
  - 0...1,000 m/0...3,300 ft without derating
  - 1,000...4,800 m/3,300...15,740 ft with derating of 1% per 100 m/330 ft
- Withstand to harsh environments:
  - Chemical class 3C3 conforming to IEC/EN 60721-3-3
  - Mechanical class 3S3 conforming to IEC/EN 60721-3-3
  - Climatic class 3K3 conforming to IEC/EN 60721-3-3
  - Printed circuit boards with protective coating
  - IP00 to integrate in an enclosure



"Stop & go" function

### General presentation of the offer (continued)

#### Energy

Altivar Process drives help to optimize power consumption by reducing the rms input current for the same load.

- Standard offer:
  - THDi  $\leq 48\%$  for 80 to 100% load on the most common operating range maintaining an optimum power factor
  - Embedded line choke technology
- Low Harmonic offer:
  - Compatible with standard IEEE 519

In addition, thanks to the "Stop & go" function, Altivar Process drives can reduce power consumption by up to 30% during system stop phases by disabling some functions automatically (the power section, fans, backlighting, etc.). On a system restart request, the Altivar Process drive takes less than 2 seconds to restart the motor.

Integrated as standard, the "Stop & go" function can be enabled and disabled in the drive parameters.

#### Environment

The Altivar Process Modular drives offer has been developed to meet the requirements of directives regarding protection of the environment and to anticipate future changes in regulations:

- REACH (1) + solution for REACH Substitute It Now (halogen-free wiring and plastics)
- PEP (Product Environmental Profile) eco-passport program for reducing the carbon footprint and conserving raw materials
- EoLI (End of Life Instruction) (2)

#### Electromagnetic compatibility (EMC)

Compliance with electromagnetic compatibility requirements has been incorporated into the design of Altivar Process Modular drives, which simplifies installation and provides an economical means of helping to ensure equipment meets CE marking requirements.

Altivar Process Modular drives have category C3 EMC filters that allow 300 m/980 ft of shielded motor cables.

(1) European regulation 1907/2006.

(2) According to IEC 62635 Enhanced Guidelines.



### General presentation of the offer (continued)

#### Installation/Maintenance

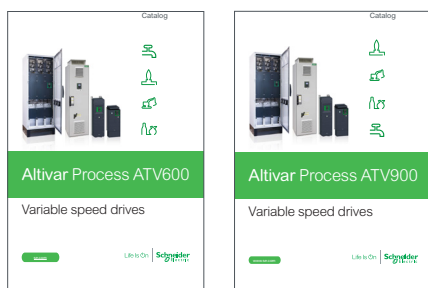
Altivar Process Modular drives are ergonomically designed to adapt to any type of installation:

- IP00 modules that can be integrated in cabinets with an IP21 (UL Type 1) or IP54 (UL Type 12) protection rating as a standard integration and up to IP66 with liquid-cooled modules
- Easy installation of products and systems:
  - Color code for connections to the removable terminal blocks on the HMI block
  - Long cable: Highly efficient integrated motor filters for dv/dt and common mode reduction and voltage peak limitation allow motor cable lengths up to 300 m/980 ft with shielded cable (category C3 environment) and 500 m/1,640 ft with unshielded cable (category C4 environment)
  - Sinus filter option: contact your local Schneider Electric sales office for support
- Asynchronous or synchronous drive in open loop from 0.1...500 Hz for ATV600 and 0.1...599 Hz for ATV900 output frequency
- Special motors: Submersible, synchronous reluctance, and tapered rotor motors
- Lower maintenance costs due to drive's ergonomic design:
  - Fans can be replaced in less than 5 minutes thanks to access from front face and drawer design
  - Wheel on standard drive power module for easy removal
  - Limited number of parts and integrated power auxiliaries
- Embedded Web server:
  - Compatible process elements for easier implementation
  - Direct worldwide access to monitoring and maintenance functions:
    - Reading values
    - Modifying data
    - Configuring parameters
    - Changing controller status

### Integrated functions

Altivar Process Modular drives include numerous advanced functions for more complex applications in each market segment.

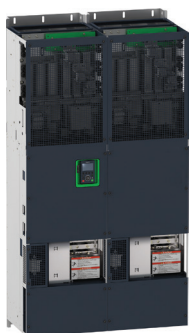
For more information, please refer to the Altivar Process ATV600 and Altivar Process ATV900 catalogs.



Altivar Process catalogs  
Click to open the documents



*Altivar Process Modular Standard architecture from 1 to 6 modules*



*Altivar Process Modular Low Harmonic/Regen architecture from 1 to 6 modules*



*Altivar Process Modular Standard Reduced Height architecture from 1 to 6 modules*



*Altivar Process Modular - Liquid-cooled architecture from 1 to 6 modules*

### Altivar Process Modular offer structure

#### Presentation

The Altivar Process Modular drives offer is composed of sub-assemblies and accessories that are integrated into cabinets to create modular drive solutions.

These separate elements can be ordered from our Schneider Electric Partner Network. For more information on the references, see [page 20](#).

Numerous drive solutions can be built using these modular parts. For more information on the characteristics of these configurations, see [page 36](#).

### Altivar Process Modular offer structure (continued)

#### Description

The Altivar Process Modular drives offer consists of sub-assemblies and accessories:

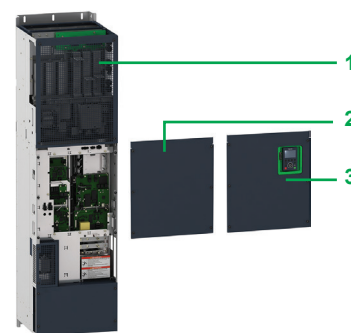
- 1 Power module, braking unit, or mains module
- 2 Front face cover
- 3 Control units for ATV600 and ATV900 or braking unit

Accessories

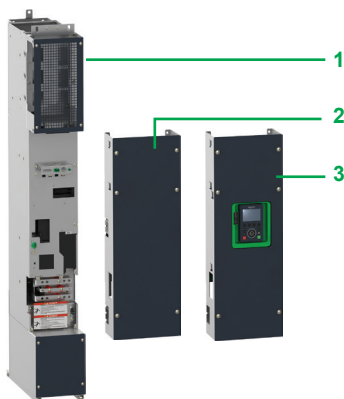
Optional extensions: Communication, I/O expansion, and encoder modules



Altivar Process Modular standard drives



Altivar Process Modular Low Harmonic/Regen drives



Braking units



Altivar Process Modular standard Reduced Height drives



Altivar Process Modular power connection kit



Altivar Process Modular - Liquid-cooled drives

Accessories comprise:

- Power connection kits
- Digi-Link cables
- Mechanical mounting kits



Altivar Process Modular Digi-Link cables

For more information, please contact your Schneider Electric supplier.

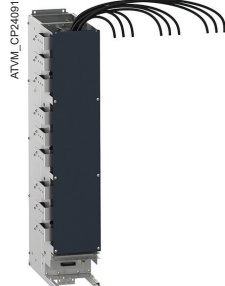




APM1A0C16N401



APM1A0C16N4RH



APMCA03LCN4RH



APM1L0C28Y6

### Power modules

| Description                                                                                                                                                                                                                              | Reference            | Weight<br>kg/lb |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------|
| <b>Standard architectures</b>                                                                                                                                                                                                            |                      |                 |
| <b>Standard power module</b>                                                                                                                                                                                                             |                      |                 |
| <b>Power module 160 kW - 380...480 V IP00:</b>                                                                                                                                                                                           | <b>APM1A0C16N401</b> | 155/<br>342     |
| <ul style="list-style-type: none"> <li>1 x standard power unit</li> <li>1 x standard mains unit</li> <li>3 x fuse holder with screws and washers for the fuse</li> <li>2 x brackets with nuts for front mechanical connection</li> </ul> |                      |                 |
| <b>Power module 200 kW - 500...690 V IP00:</b>                                                                                                                                                                                           | <b>APM1A0C20Y6</b>   | 168/<br>370     |
| <ul style="list-style-type: none"> <li>1 x standard power unit</li> <li>1 x standard mains unit</li> <li>3 x fuse holder with screws and washers for the fuse</li> <li>2 x brackets with nuts for front mechanical connection</li> </ul> |                      |                 |

### Low Harmonic/Regen power module

|                                                                                                                                                                    |                    |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------|
| <b>Power module 160 kW - 380...480 V IP00:</b>                                                                                                                     | <b>APM1B0C16N4</b> | 260/<br>574 |
| <ul style="list-style-type: none"> <li>1 x power module for Low Harmonic/Regen APM drives</li> <li>3 x fuse holder with screws and washers for the fuse</li> </ul> |                    |             |
| <b>Power module 200 kW - 500...690 V IP00:</b>                                                                                                                     | <b>APM1B0C20Y6</b> | 290/<br>639 |
| <ul style="list-style-type: none"> <li>1 x power module for Low Harmonic/Regen APM drives</li> <li>3 x fuse holder with screws and washers for the fuse</li> </ul> |                    |             |

### Reduced Height architectures

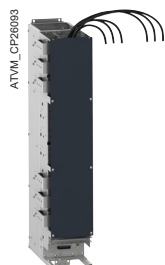
|                                                                    |                      |             |
|--------------------------------------------------------------------|----------------------|-------------|
| <b>Standard power module (Reduced Height integration)</b>          |                      |             |
| <b>Power module for Reduced Height 160 kW - 380...480 V IP00:</b>  | <b>APM1A0C16N4RH</b> | 100/<br>220 |
| <ul style="list-style-type: none"> <li>1 x power module</li> </ul> |                      |             |
| <b>Power module for Reduced Height 200 kW - 500...690 V IP00:</b>  | <b>APM1A0C20Y6RH</b> | 100/<br>220 |
| <ul style="list-style-type: none"> <li>1 x power module</li> </ul> |                      |             |

### Liquid-cooled architectures

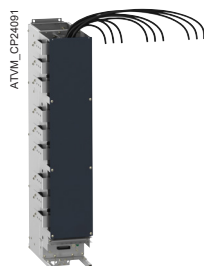
|                                                                                                                                                                 |                    |              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------|
| <b>Standard power module liquid-cooled</b>                                                                                                                      |                    |              |
| <b>Standard power module 200 kW - 380...480V IP00:</b>                                                                                                          | <b>APM1L0C20N4</b> | 82.5/<br>182 |
| <ul style="list-style-type: none"> <li>1 x standard power unit with embedded 6/12-pulse rectifier</li> <li>1 x integrated water/water heat exchanger</li> </ul> |                    |              |
| <b>Standard power module 315 kW - 380...480V IP00</b>                                                                                                           | <b>APM1L0C31N4</b> | 82.5/<br>182 |
| <ul style="list-style-type: none"> <li>1 x standard power unit with embedded 6/12-pulse rectifier</li> <li>1 x integrated water/water heat exchanger</li> </ul> |                    |              |
| <b>Standard power module 280 kW - 500...690V IP00:</b>                                                                                                          | <b>APM1L0C28Y6</b> | 82.5/<br>182 |
| <ul style="list-style-type: none"> <li>1 x standard power unit with embedded 6/12-pulse rectifier</li> <li>1 x integrated water/water heat exchanger</li> </ul> |                    |              |
| <b>Standard power module 450 kW - 500...690V IP00</b>                                                                                                           | <b>APM1L0C45Y6</b> | 82.5/<br>182 |
| <ul style="list-style-type: none"> <li>1 x standard power unit with embedded 6/12-pulse rectifier</li> <li>1 x integrated water/water heat exchanger</li> </ul> |                    |              |

### Overall dimensions

| Reference     | W x H x D        |                      |
|---------------|------------------|----------------------|
|               | mm               | in.                  |
| APM1A0C16N401 | 230 x 1705 x 510 | 9.10 x 67.12 x 20.08 |
| APM1A0C20Y6   |                  |                      |
| APM1B0C16N4   | 450 x 1692 x 508 | 17.72 x 66.61 x 20   |
| APM1B0C20Y6   |                  |                      |
| APM1A0C16N4RH | 230 x 1230 x 509 | 9.10 x 48.43 x 20    |
| APM1A0C20Y6RH |                  |                      |
| APM1L0C20N4   | 232 x 1080 x 526 | 9.13 x 40.08 x 20.71 |
| APM1L0C31N4   |                  |                      |
| APM1L0C28Y6   |                  |                      |
| APM1L0C45Y6   |                  |                      |



APMCA02LCN4RH



APMCA03LCY6RH

## Power modules

| Description                                                                                                                                                                                                                                                                                                                | Reference                     | Weight<br>kg/lb |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------------|
| <b>Reduced Height architectures (continued)</b>                                                                                                                                                                                                                                                                            |                               |                 |
| <b>Mains module (Reduced Height integration)</b>                                                                                                                                                                                                                                                                           |                               |                 |
| <b>Mains module 1 line choke - 380...480V - IP00:</b><br>For combination with 1 standard power module.<br>■ 1 x mains module for APM Standard Reduced Height 380...480V<br>■ Components for power fan management:<br>Controller, 48 VDC power supply, 2 x relays and 2 x relay holders, 3 x fuses and 3 x fuse holders     | <a href="#">APMCA01LCN4RH</a> | 103/<br>227     |
| <b>Mains module 2 line chokes - 380...480V - IP00:</b><br>For combination with 2 x standard power modules.<br>■ 1 x mains module for APM Standard Reduced Height 380...480V<br>■ Components for power fan management:<br>Controller, 48 VDC power supply, 2 x relays and 2 x relay holders, 3 x fuses and 3 x fuse holders | <a href="#">APMCA02LCN4RH</a> | 160/<br>353     |
| <b>Mains module 3 line chokes - 380...480V - IP00:</b><br>For combination with 3 x standard power modules.<br>■ 1 x mains module for APM Standard Reduced Height 380...480V<br>■ Components for power fan management:<br>Controller, 48 VDC power supply, 2 x relays and 2 x relay holders, 3 x fuses and 3 x fuse holders | <a href="#">APMCA03LCN4RH</a> | 217/<br>478     |
| <b>Mains module 1 line choke - 500...690V - IP00:</b><br>For combination with 1 standard power module.<br>■ 1 x mains module for APM Standard Reduced Height 500...690V<br>■ Components for power fan management:<br>Controller, 48 VDC power supply, 2 x relays and 2 x relay holders, 3 x fuses and 3 x fuse holders     | <a href="#">APMCA01LCY6RH</a> | 116/<br>256     |
| <b>Mains module 2 line chokes - 500...690V - IP00:</b><br>For combination with 2 x standard power modules.<br>■ 1 x mains module for APM Standard Reduced Height 500...690V<br>■ Components for power fan management:<br>Controller, 48 VDC power supply, 2 x relays and 2 x relay holders, 3 x fuses and 3 x fuse holders | <a href="#">APMCA02LCY6RH</a> | 186/<br>410     |
| <b>Mains module 3 line chokes - 500...690V - IP00:</b><br>For combination with 3 x standard power modules.<br>■ 1 x mains module for APM Standard Reduced Height 500...690V<br>■ Components for power fan management:<br>Controller, 48 VDC power supply, 2 x relays and 2 x relay holders, 3 x fuses and 3 x fuse holders | <a href="#">APMCA03LCY6RH</a> | 256/<br>564     |

## Overall dimensions

| Reference                     | W x H x D        |                       |
|-------------------------------|------------------|-----------------------|
|                               | mm               | in.                   |
| <a href="#">APMCA01LCN4RH</a> | 269 x 1248 x 506 | 10.60 x 49.10 x 19.92 |
| <a href="#">APMCA02LCN4RH</a> |                  |                       |
| <a href="#">APMCA03LCN4RH</a> |                  |                       |
| <a href="#">APMCA01LCY6RH</a> |                  |                       |
| <a href="#">APMCA02LCY6RH</a> |                  |                       |
| <a href="#">APMCA03LCY6RH</a> |                  |                       |



APM6A0CTLN401



APM6B0CTLY6



APM9L0CTLY6

## Control units for power module

| Description                    | Reference                     | Weight<br>kg/lb  |
|--------------------------------|-------------------------------|------------------|
| <b>ATV600 (1)</b>              |                               |                  |
| Standard module 380...480 V    | <a href="#">APM6A0CTLN401</a> | 6.750/<br>14.880 |
| Standard module 500...690 V    | <a href="#">APM6A0CTLY6</a>   | 6.750/<br>14.880 |
| Low Harmonic 380...480 V       | <a href="#">APM6B0CTLN4</a>   | 8.000/<br>17.640 |
| Low Harmonic 500...690 V       | <a href="#">APM6B0CTLY6</a>   | 4.800/<br>10.580 |
| Liquid-cooled 380...480 V      | <a href="#">APM6L0CTLN4</a>   | 6.500/<br>14.330 |
| Liquid-cooled 500...690 V      | <a href="#">APM6L0CTLY6</a>   | 6.500/<br>14.330 |
| <b>ATV900 (1)</b>              |                               |                  |
| Standard module 380...480 V    | <a href="#">APM9A0CTLN401</a> | 6.750/<br>14.880 |
| Standard module 500...690 V    | <a href="#">APM9A0CTLY6</a>   | 6.750/<br>14.880 |
| Low Harmonic/Regen 380...480 V | <a href="#">APM9B0CTLN4</a>   | 8.000/<br>17.640 |
| Low Harmonic/Regen 500...690 V | <a href="#">APM9B0CTLY6</a>   | 4.800/<br>10.580 |
| Liquid-cooled 380...480 V      | <a href="#">APM9L0CTLN4</a>   | 6.500/<br>14.330 |
| Liquid-cooled 500...690 V      | <a href="#">APM9L0CTLY6</a>   | 6.500/<br>14.330 |

## Overall dimensions

| Reference                     | W x H x D       |                      |
|-------------------------------|-----------------|----------------------|
|                               | mm              | in.                  |
| <a href="#">APM6A0CTLN401</a> | 230 x 678 x 108 | 9.10 x 16.80 x 4.30  |
| <a href="#">APM9A0CTLN401</a> |                 |                      |
| <a href="#">APM6A0CTLY6</a>   |                 |                      |
| <a href="#">APM9A0CTLY6</a>   |                 |                      |
| <a href="#">APM6L0CTLN4</a>   | 230 x 510 x 131 | 9.10 x 20.08 x 5.16  |
| <a href="#">APM6L0CTLY6</a>   |                 |                      |
| <a href="#">APM6B0CTLN4</a>   | 450 x 520 x 105 | 17.72 x 20.47 x 4.13 |
| <a href="#">APM9B0CTLN4</a>   |                 |                      |
| <a href="#">APM6B0CTLY6</a>   |                 |                      |
| <a href="#">APM9B0CTLY6</a>   |                 |                      |
| <a href="#">APM9L0CTLN4</a>   | 230 x 510 x 131 | 9.10 x 20.08 x 5.16  |
| <a href="#">APM9L0CTLY6</a>   |                 |                      |

(1) All control units include 1 control unit (metal housing + control block + power board), 1 graphic display terminal, 1 Digi-Link cable, 1 cable for 24 V supply, and cables for voltage measurement (mains, DC, motor).



VW3A97A01



VW3A83CDG00

## Housings

| Description                         | Reference | Weight<br>kg/lb  |
|-------------------------------------|-----------|------------------|
| Standard front face cover           | VW3A97A01 | 5.000/<br>11.000 |
| Low Harmonic/Regen front face cover | VW3A97B01 | 5.900/<br>13.000 |

## Overall dimensions

| Reference | W x H x D       |                      |
|-----------|-----------------|----------------------|
|           | mm              | in.                  |
| VW3A97A01 | 230 x 678 x 108 | 9.06 x 26.70 x 4.25  |
| VW3A97B01 | 450 x 520 x 105 | 17.72 x 20.47 x 4.13 |

## Control cables

| Description                          | Reference    | Weight<br>kg/lb |
|--------------------------------------|--------------|-----------------|
| RJ45 module-link cable 1.5 m/4.92 ft | VW3A83BMR015 | 0.120/<br>0.264 |
| RJ45 module-link cable 5 m/16.4 ft   | VW3A83BMR050 | 0.230/<br>0.507 |
| Digi-Link cable 2 m/6.56 ft          | VW3A83CDG020 | 0.100/<br>0.220 |
| Digi-Link cable 3 m/9.84 ft          | VW3A83CDG030 | 0.140/<br>0.309 |
| Digi-Link cable 5 m/16.4 ft          | VW3A83CDG050 | 0.230/<br>0.507 |
| Digi-Link cable 10 m/33 ft           | VW3A83CDG100 | 0.430/<br>0.948 |



# Variable speed drives

## Altivar Process Modular

### Sub-assemblies and accessories



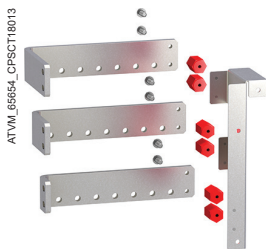
VW3A98ABMAAA



VW3A98ABMCAC



VW3A98CTM01



VW3A98CTM02



VW3A98CF4040

### Power busbar kits

| Description                                                                                                                                                                                                                                                                 | Reference     | Weight<br>kg/lb   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------|
| Power busbar kit to connect 1 standalone power module in a 400 mm/15.75 in. width cabinet.                                                                                                                                                                                  | VW3A98ABMAAA  | 4.500/<br>9.920   |
| Power busbar kit to connect 2 side-by-side power modules in a 600 mm/23.62 in. width cabinet                                                                                                                                                                                | VW3A98ABMCAB  | 8.000/<br>17.637  |
| Power busbar kit to connect 3 side-by-side power modules in a 800 mm/31.50 in. width cabinet                                                                                                                                                                                | VW3A98ABMCAC  | 12.000/<br>26.455 |
| Power busbar kit to connect 2 remote power modules integrated in side-by-side cabinet columns of:<br>■ 600 mm + 600 mm (23.62 in. + 23.62 in.) width or<br>■ 800 mm + 600 mm (31.50 in. + 23.62 in.) width                                                                  | VW3A98ABMDCE  | 2.500/<br>5.512   |
| Power busbar kit to connect 2 remote power modules integrated in side-by-side cabinet columns of 800 mm + 800 mm (31.50 in. + 31.50 in.) width                                                                                                                              | VW3A98ABMDCF  | 2.000/<br>4.409   |
| Power busbar kit to connect:<br>■ 2 side-by-side standard power modules or<br>■ 1 side-by-side standard power module + 1 braking unit                                                                                                                                       | VW3A98ABPC1   | 1.000/<br>2.204   |
| Power busbar kit to connect:<br>■ 2 remote standard power modules or<br>■ 1 remote standard power module and 1 braking unit<br>In side-by-side cabinet columns of:<br>■ 600 mm + 600 mm (23.62 in. + 23.62 in.) width or<br>■ 800 mm + 600 mm (31.50 in. + 23.62 in.) width | VW3A98ABPDCE1 | 2.600/<br>5.730   |
| Power busbar kit to connect 2 power modules integrated in side-by-side cabinet columns of 800 mm + 800 mm (31.50 in. + 31.50 in.) width                                                                                                                                     | VW3A98ABPDCF  | 2.000/<br>4.409   |
| Power busbar kit to connect 1 standalone Low Harmonic power module integrated in a 600 mm/23.62 in. width cabinet                                                                                                                                                           | VW3A98BBMAAB  | 8.400/<br>18.519  |
| Power busbar kit to connect 2 side-by-side Low Harmonic power modules integrated in a 1,000 mm/39.37 in. width cabinet                                                                                                                                                      | VW3A98BBMCAD  | 16.500/<br>36.376 |
| Power busbar kit to connect 2 remote Low Harmonic power modules integrated in side-by-side cabinet columns of:<br>■ 600 mm + 1,000 mm (23.62 in. + 39.37 in.) width or<br>■ 1,000 mm + 1,000 mm (39.37 in. + 39.37 in.) width                                               | VW3A98BBMDCG  | 1.800/<br>3.968   |
| Power busbar kit to connect 2 side-by-side Low Harmonic power modules                                                                                                                                                                                                       | VW3A98BBPC    | 2.000/<br>4.409   |
| Power busbar kit to connect 2 remote Low Harmonic power modules integrated in side-by-side cabinet columns of:<br>■ 600 mm + 1,000 mm (23.62 in. + 39.37 in.) width or<br>■ 1,000 mm + 1,000 mm (39.37 in. + 39.37 in.) width                                               | VW3A98BBPDCG  | 2.500/<br>5.511   |
| Power busbar kit to connect 1 Low Harmonic/Regen power module with 1 braking unit integrated in side-by-side cabinet columns of:<br>■ 400 mm + 600 mm (15.75 in. + 23.62 in.) width or<br>■ 400 mm + 1,000 mm (15.75 in. + 39.37 in.) width                                 | VW3A98BBPDCK  | 1.000/<br>2.204   |
| Power busbar mounting kit                                                                                                                                                                                                                                                   | VW3A98CTM01   | 0.500/<br>1.102   |
| Power terminal kit                                                                                                                                                                                                                                                          | VW3A98CTM02   | 7.500/<br>16.535  |

### Fuses

| Description                        | Reference    | Weight<br>kg/lb |
|------------------------------------|--------------|-----------------|
| Set of 3 fuses 315 A               | VW3A98CF3169 | 0.750/<br>1.653 |
| Set of 3 fuses 400 A, UL certified | VW3A98CF4040 | 0.750/<br>1.653 |



## Mechanical mounting kits

| Description                                                                                                                                                         | Cabinet        | Reference                    | Weight<br>kg/lb   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------------------|-------------------|
| <b>Mounting kits</b>                                                                                                                                                |                |                              |                   |
| Mains terminal extension plates for drives architectures with UL certification                                                                                      | SF/TS8/VX25    | VW3A98CTM03                  | 6.450/<br>14.220  |
| Mains bar support for a required SCR rating > 50 kA                                                                                                                 | SF/TS8/VX25    | VW3A98CTM04                  | 0.200/<br>0.440   |
| Mechanical mounting kit for integration of:<br>■ 1 standard power module in a 400 mm/15.75 in. width cabinet                                                        | SF/TS8<br>VX25 | VW3A99ACFAA<br>VW3A99ACFAA01 | 6.600/<br>14.550  |
| Mechanical mounting kit for integration of:<br>■ 2 standard power modules in a 600 mm/23.62 in. width cabinet                                                       | SF/TS8<br>VX25 | VW3A99ACFCB<br>VW3A99ACFCB01 | 9.500/<br>20.944  |
| Mechanical mounting kit for integration of:<br>■ 3 standard power modules in a 800 mm/31.50 in. width cabinet.                                                      | SF/TS8<br>VX25 | VW3A99ACFEC<br>VW3A99ACFEC01 | 14.000/<br>30.865 |
| Removable support                                                                                                                                                   | SF/TS8/VX25    | VW3A99AR01                   | 2.200/<br>4.850   |
| Mechanical mounting kit for integration of:<br>■ 1 Low Harmonic/Regen power module in a 600 mm/23.62 in. width cabinet                                              | SF/TS8<br>VX25 | VW3A99BCFAB<br>VW3A99BCFAB01 | 17.000/<br>37.478 |
| Mechanical mounting kit for integration of:<br>■ 2 Low Harmonic/Regen power modules in a 1,000 mm/39.37 in. width cabinet.                                          | SF/TS8<br>VX25 | VW3A99BCFCD<br>VW3A99BCFCD01 | 26.000/<br>57.320 |
| Removable support for Low Harmonic power module integration                                                                                                         | SF/TS8/VX25    | VW3A99BR01                   | 16.500/<br>36.376 |
| Mechanical mounting kit for integration of:<br>■ 1 standard power module + 1 mains module                                                                           | SF/TS8/VX25    | VW3A99ACFCBN01               | 10.000/<br>22.000 |
| Mechanical mounting kit for integration of:<br>■ 2 standard power modules or<br>■ 1 standard power module + 1 braking module or<br>■ 2 braking modules architecture | SF/TS8         | VW3A99ACFCBM01               | 9.000/<br>19.800  |
| Mechanical mounting kit for integration of:<br>■ 2 standard power modules or<br>■ 1 standard power module + 1 braking module or<br>■ 2 braking modules              | VX25           | VW3A99ACFCBM02               | 9.000/<br>19.800  |
| Mechanical mounting kit for integration of:<br>■ 3 standard power modules or<br>■ 2 standard power modules + 1 braking module                                       | SF/TS8         | VW3A99ACFEBN01               | 12.000/<br>26.460 |
| Mechanical mounting kit for integration of:<br>■ 3 standard power modules or<br>■ 2 standard power modules + 1 braking module                                       | VX25           | VW3A99ACFEBN02               | 12.000/<br>26.460 |
| Mechanical mounting kit for integration of:<br>■ 1 mains module                                                                                                     | SF/TS8/VX25    | VW3A99ACFABM                 | 5.500/<br>12.130  |

## Top air ducts

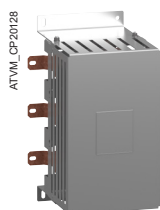
|                                                                                                                                                                                  |             |                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------|
| Top outlet cooling air duct for IP54/UL Type 12 integration of:<br>■ 1 standard power module or<br>■ 1 braking unit                                                              | VW3A99ACA03 | 1.800/<br>3.968 |
| Top outlet cooling air duct for IP54/UL Type 12 integration of:<br>■ 1 Low Harmonic/Regen power module                                                                           | VW3A99BCA03 | 1.700/<br>3.747 |
| Top outlet cooling air duct for IP54/UL Type 12 integration of:<br>■ 1 standard power module or<br>■ 1 braking module                                                            | VW3A99ACA04 | 3.000/<br>6.610 |
| Top outlet cooling air duct for IP54/UL Type 12 integration of:<br>■ 1 mains module                                                                                              | VW3A99ACA11 | 2.500/<br>5.510 |
| Top outlet cooling air duct for IP54/UL Type 12 integration of:<br>■ 1 standard power module or<br>■ 1 braking module in cabinet with an air cooling outlet at the top rear side | VW3A99ACA12 | 4.000/<br>8.820 |
| Top outlet cooling air duct for IP54/UL Type 12 integration of:<br>■ 1 mains module in cabinet with an air cooling outlet at the top rear side                                   | VW3A99ACA13 | 3.000/<br>6.610 |



VW3A99ACA01



VW3A99ACA10



APM1L0LFMY6

**Mechanical mounting kits (continued)**

| Description                                                                                                                     | Cabinet | Reference                  | Weight<br>kg/lb  |
|---------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|------------------|
| <b>Bottom supports and ducts</b>                                                                                                |         |                            |                  |
| Bottom support for IP21/UL Type 1 integration of:<br>■ 1 standard power module                                                  |         | VW3A99ACA01<br>VW3A99ACA07 | 8.000/<br>17.637 |
| Bottom support for IP54/UL Type 12 integration of:<br>■ 1 standard power module                                                 |         | VW3A99ACA02<br>VW3A99ACA08 | 7.600/<br>17.755 |
| Bottom inlet air duct for IP54/UL Type 12 integration of:<br>■ 1 Low Harmonic/Regen power module                                |         | VW3A99BCA02                | 6.900/<br>15.211 |
| Bottom support for IP21/UL Type 1 integration of:<br>■ 1 standard power module or<br>■ 1 mains module or<br>■ 1 braking module  | SF/TS8  | VW3A99ACA05                | 3.000/<br>6.610  |
| Bottom support for IP54/UL Type 12 integration of:<br>■ 1 standard power module or<br>■ 1 mains module or<br>■ 1 braking module | SF/TS8  | VW3A99ACA06                | 6.000/<br>13.230 |
| Bottom support for IP21/UL Type 1 integration of:<br>■ 1 standard power module or<br>■ 1 mains module or<br>■ 1 braking module  | VX25    | VW3A99ACA09                | 3.000/<br>6.610  |
| Bottom support for IP54/UL Type 12 integration of:<br>■ 1 standard power module or<br>■ 1 mains module or<br>■ 1 braking module | VX25    | VW3A99ACA10                | 6.000/<br>13.230 |

**Mechanical mounting kits for liquid-cooled drives**

|                                                                                                                        |              |                 |
|------------------------------------------------------------------------------------------------------------------------|--------------|-----------------|
| Connection kit for drive power module and motor protection module in 600mm/23.62 in. width cabinets for 2 to 6 modules | VW3A98LBPC1  | 15/<br>33.069   |
| Mains bar support                                                                                                      | VW3A98LTMC1  | 1.5/<br>3.307   |
| Set of tubes for liquid cooling                                                                                        | VW3A98LGHC1  | 5/<br>11.023    |
| Over-pressure valve                                                                                                    | VW3A98LGHC2  | 2.5/<br>5.511   |
| Motor terminal extension for box lugs                                                                                  | VW3A98LBPC3  | 2.5/<br>5.511   |
| Braking module interconnection kit including cabinet cooling module adapter                                            | VW3A98LBPC2  | 27/<br>59.524   |
| Module-link cable 10m/32.8ft for braking unit                                                                          | VW3A83BMR100 | 0.430/<br>0.948 |
| Steel support for Liquid-cooled module                                                                                 | VW3A99LR01   | 6/<br>13.228    |

**Additional modules for liquid-cooled drives**

| Description                                                                                                                    | Reference   | Weight<br>kg/lb |
|--------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------|
| <b>Line paralleling</b>                                                                                                        |             |                 |
| Line paralleling module IP00, 380 ... 480 V<br>■ 6- or 12-pulse supply<br>■ 1 x paralleling choke<br>■ 3 x semiconductor fuses | APM1L0LPMN4 | 40/<br>88.185   |
| Line paralleling module IP00, 500 ... 690 V<br>■ 6- or 12-pulse supply<br>■ 1 x paralleling choke<br>■ 3 x semiconductor fuses | APM1L0LPMY6 | 40/<br>88.185   |
| <b>Line filter</b>                                                                                                             |             |                 |
| Line filter module IP00, 380 ... 480 V<br>■ EMC filter                                                                         | APM1L0LFMN4 | 6.5/<br>14.330  |
| Line filter module IP00, 500 ... 690 V<br>■ EMC filter                                                                         | APM1L0LFMY6 | 6.5/<br>14.330  |



APMBC0C63Y6



APMBC0CTLY6

**Additional modules for liquid-cooled drives (continued)**

| Description                                                                                                                                      | Reference    | Weight<br>kg/lb  |
|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------------|
| <b>Line choke</b>                                                                                                                                |              |                  |
| Line choke module IP00, 380 ... 480 V<br>■ 6- or 12-pulse supply<br>■ 2 x three-phase line reactors<br>■ 6 x semiconductor fuses<br>■ EMC filter | APM1L0LCMN4  | 183.5/<br>404.55 |
| Line choke module IP00, 500 ... 690 V<br>■ 6- or 12-pulse supply<br>■ 2 x three-phase line reactors<br>■ 6 x semiconductor fuses<br>■ EMC filter | APM1L0LCMY6  | 183.5/<br>404.55 |
| <b>Motor protection</b>                                                                                                                          |              |                  |
| Motor protection module IP00, 380 ... 480 V<br>■ 1 x dv/dt filter and common mode filter<br>■ Integrated motor terminals                         | APM1L0MPMN4  | 32.5/<br>71.650  |
| Motor protection module IP00, 500 ... 690 V<br>■ 1 x dv/dt filter and common mode filter<br>■ Integrated motor terminals                         | APM1L0MPMY6  | 32.5/<br>71.650  |
| <b>Cabinet cooling</b>                                                                                                                           |              |                  |
| Cabinet cooling module IP00, 115 VAC<br>■ Air/water heat exchanger with fan                                                                      | APM1L0CCM115 | 13.5/<br>29.762  |
| Cabinet cooling module IP00, 230 VAC<br>■ Air/water heat exchanger with fan                                                                      | APM1L0CCM230 | 13.5/<br>29.762  |

**Braking modules**

| Description                                                                                                                                         | Reference   | Weight<br>kg/lb |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------|
| <b>Braking module for APM 380...480 V:</b><br>■ 1 x power unit<br>■ 1 x air outlet unit<br>■ 2 x brackets with nuts for front mechanical connection | APMBC0C50N4 | 95/<br>209.43   |
| <b>Braking module for APM 500...690 V:</b><br>■ 1 x power unit<br>■ 1 x air outlet unit<br>■ 2 x brackets with nuts for front mechanical connection | APMBC0C63Y6 | 95/<br>209.43   |

**Overall dimensions**

| Reference   | W x H x D         |                       |
|-------------|-------------------|-----------------------|
|             | mm                | in.                   |
| APMBC0C50N4 | 750 x 1,360 x 700 | 29.53 x 53.54 x 27.56 |
| APMBC0C63Y6 |                   |                       |

**Control units for braking unit**

| Description                               | Reference   | Weight<br>kg/lb  |
|-------------------------------------------|-------------|------------------|
| Control unit for braking unit 380...480 V | APMBC0CTLN4 | 6.750/<br>14.881 |
| Control unit for braking unit 500...690 V | APMBC0CTLY6 | 6.750/<br>14.881 |

**Overall dimensions**

| Reference   | W x H x D       |                      |
|-------------|-----------------|----------------------|
|             | mm              | in.                  |
| APMBC0CTLN4 | 287 x 735 x 178 | 11.30 x 28.94 x 7.01 |
| APMBC0CTLY6 |                 |                      |



ATVM\_6954\_CPSC118006



VX5VAM001

| Wear parts                       |                            |                 |
|----------------------------------|----------------------------|-----------------|
| Description                      | Reference                  | Weight<br>kg/lb |
| Power fan kit                    | <a href="#">VX5VAM001</a>  | 1.420/<br>3.130 |
| Drive power fan kit              | <a href="#">VX5VAML001</a> | 0.7/<br>1.543   |
| Cabinet cooling fan kit, 115 V ~ | <a href="#">VX5VAML003</a> | 1.4/<br>3.086   |
| Cabinet cooling fan kit, 230 V ~ | <a href="#">VX5VAML002</a> | 1.4/<br>3.086   |



SoMove software

### SoMove software for Altivar Process Modular

#### Presentation

SoMove software for PC is used to configure, set up, and maintain Altivar Process drives.

In addition to the standard features offered by SoMove software, such as the oscilloscope function for accurate display of data samples or access to multi-drive applications, the following features are accessible to partners of Altivar Process Modular drives:

- First-time drive setting including architecture identification and validation, main voltage and nominal power range setting, and operational reference creation, which is the identity card of the configuration
- Serial number generation for the built modular drive
- Activation of warranty by registering the built modular drive in the Schneider Electric Partner Database
- Start-up and maintenance of the built modular drive

For more information on SoMove setup software, please consult the SoMove Setup Software catalog.

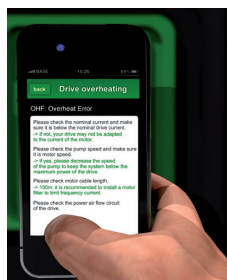
# Variable speed drives

## Altivar Process Modular

Options: Graphic display terminal, communication accessory



Graphic display terminal  
(example shows dynamic pump operation in relation to its optimum operation)



Instant access to online help



Remote mounting kit for mounting graphic display terminal  
on enclosure door (front panel)



Remote mounting kit for mounting graphic display terminal (rear panel)

### Graphic display terminal (supplied with the drive)

#### References

| Description              | Reference                | Weight<br>kg/<br>lb |
|--------------------------|--------------------------|---------------------|
| Graphic display terminal | <a href="#">VW3A1111</a> | 0.200/<br>0.441     |

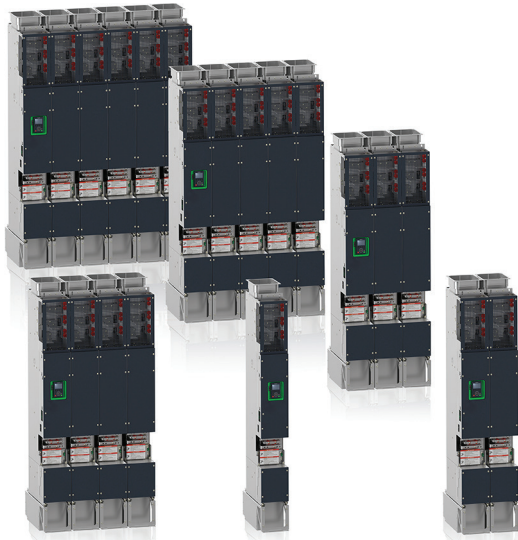
### Communication accessory

| Description                                                                                                              | Reference                  | Weight<br>kg/<br>lb |
|--------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------|
| <b>Wi-Fi dongle</b><br>Portable battery-powered Wi-Fi access point for Wi-Fi equipment<br>(PC, tablet, smartphone, etc.) | <a href="#">TCSEGB131W</a> | 0.134/<br>0.295     |

#### References

| Description                                                                                               | Length<br>m/<br>ft | IP rating        | Reference                    | Weight<br>kg/<br>lb |
|-----------------------------------------------------------------------------------------------------------|--------------------|------------------|------------------------------|---------------------|
| <b>Remote mounting kit</b><br>Order with remote-mounting<br>cordset VW3A1104R●●●                          | —                  | 65/UL Type<br>12 | <a href="#">VW3A1112</a>     | —                   |
| <b>Tightening tool</b><br>for remote mounting kit                                                         | —                  | —                | <a href="#">ZB5AZ905</a>     | 0.016/<br>0.035     |
| <b>Remote-mounting cordset</b><br>equipped with 2 RJ45 connectors                                         | 1/<br>3.28         | —                | <a href="#">VW3A1104R10</a>  | 0.050/<br>0.110     |
|                                                                                                           | 3/<br>9.84         | —                | <a href="#">VW3A1104R30</a>  | 0.150/<br>0.331     |
|                                                                                                           | 5/<br>16.4         | —                | <a href="#">VW3A1104R50</a>  | 0.250/<br>0.551     |
|                                                                                                           | 10/<br>33          | —                | <a href="#">VW3A1104R100</a> | 0.500/<br>1.102     |
| <b>IP65 remote mounting kit for<br/>Ethernet port (1)</b><br>Ø 22 RJ45 female/female adapter<br>with seal | —                  | 65               | <a href="#">VW3A1115</a>     | 0.018/<br>0.040     |

(1) Used to connect a remote PC to the RJ45 port on an IP21 drive mounted in an enclosure.  
Drill hole with a standard Ø 22 tool, as used for a pushbutton (requires a remote-mounting  
cordset VW3A1104R●●● equipped with 2 RJ45 connectors).



Altivar Process Modular Standard architecture from 1 to 6 modules



Altivar Process Modular Low Harmonic/Regen architecture from 1 to 6 modules

### Modular drives

Modular drive solutions can be built using power modules, control units, and accessories. They cover motor power ratings from 75...2600 kW/125...2600 HP for 380...690 V three-phase voltages.

#### Three-phase power supply - 380...480 V (-15...10%) Standard

| Motor power                    | Degree of protection | Reference                                  |
|--------------------------------|----------------------|--------------------------------------------|
| 110...1000 kW<br>150...1400 HP | IP00                 | ATV6A0C11●4...M10●4<br>ATV9A0C11●4...M10●4 |

#### Three-phase power supply 500 V (-10...15%), 600...690 V (-15...10%) Standard

| Motor power                   | Degree of protection | Reference                                  |
|-------------------------------|----------------------|--------------------------------------------|
| 75...1200 kW<br>125...1200 HP | IP00                 | ATV6A0C11●6...M12●6<br>ATV9A0C11●6...M12●6 |

#### Three-phase power supply - 380...440 V (-15...10%), 480 V (-10...10%) Low Harmonic

| Motor power                    | Degree of protection | Reference                                  |
|--------------------------------|----------------------|--------------------------------------------|
| 110...1000 kW<br>150...1400 HP | IP00                 | ATV6B0C11●4...M10●4<br>ATV9B0C11●4...M10●4 |

#### Three-phase power supply 500 V (-10...15%), 600...690 V (-10...10%) Low Harmonic

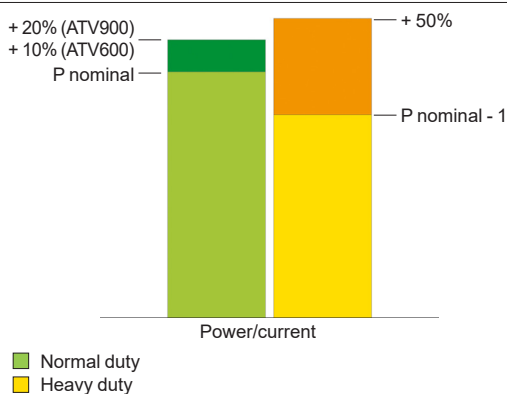
| Motor power                   | Degree of protection | Reference                                  |
|-------------------------------|----------------------|--------------------------------------------|
| 75...1200 kW<br>125...1200 HP | IP00                 | ATV6B0C11●6...M12●6<br>ATV9B0C11●6...M12●6 |

#### Liquid-cooled three-phase power supply - 380 V...480 V (-15...10%) Standard

| Motor power                    | Degree of protection | Reference                                  |
|--------------------------------|----------------------|--------------------------------------------|
| 132...1800 kW<br>200...2500 HP | IP00                 | ATV6L0C13●4...M18●4<br>ATV9L0C13●4...M18●4 |

#### Liquid-cooled three-phase power supply - 500 V (-10...15%), 600...690 V (-15...10%) Standard

| Motor power                    | Degree of protection | Reference                                  |
|--------------------------------|----------------------|--------------------------------------------|
| 132...2600 kW<br>200...2600 HP | IP00                 | ATV6L0C20●6...M26●6<br>ATV9L0C20●6...M26●6 |



Normal duty and Heavy duty modes

Altivar Process Modular variable speed drives are designed for use in two operating modes that can optimize the drive nominal rating according to the system constraints.

These two modes are:

- Normal duty (ND): Dedicated mode for applications requiring a slight overload (up to 110% for ATV600 and 120% for ATV900) with a motor power no higher than the drive nominal power
- Heavy duty (HD): Dedicated mode for applications requiring a significant overload (up to 150% for both ATV600 and ATV900) with a motor power no higher than the drive nominal power derated by one rating

### Architectures

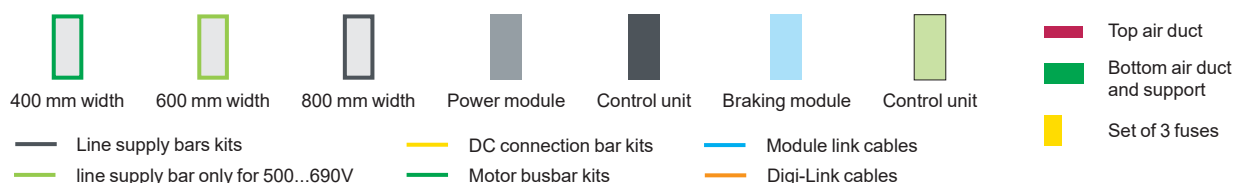
Altivar Process Modular drives can be integrated into cabinets with the following dimensions:

- 2,000 mm/78.7 in. height for standard cabinets or 1,600 mm/63 in., height for Reduced Height cabinets
- 600 mm/23.6 in. depth
- Four different widths: 400 mm/15.7 in., 600 mm/23.6 in., 800 mm/31.5 in., and 1,000 mm/39.4 in.

Examples of different architectures for all Altivar Process Modular power ranges are presented in this chapter for our drives dedicated to 380...480V and 500...690 V line supply. There are four types of architectures:

- Standard
- Reduced Height
- Low Harmonic/Regen
- Liquid cooled.

Please refer to the combinations table (see page 84) to learn more about the possible architectures.



### Standard drive solutions without braking - Standard architectures

|             |                         |                         |                         |                           |                           |                           |
|-------------|-------------------------|-------------------------|-------------------------|---------------------------|---------------------------|---------------------------|
|             |                         |                         |                         |                           |                           |                           |
|             | 1 x APM<br>400 mm width | 2 x APM<br>600 mm width | 3 x APM<br>800 mm width | 4 x APM<br>1,200 mm width | 5 x APM<br>1,400 mm width | 6 x APM<br>1,600 mm width |
| 380...480 V | 110 to 160 kW           | 200 to 315 kW           | 355 to 500 kW           | 560 to 630 kW             | 710 to 800 kW             | 1000 kW                   |
| 500...690 V | 75 to 200 kW            | 160 to 400 kW           | 355 to 630 kW           | 560 to 800 kW             | 710 to 1000 kW            | 800 to 1200 kW            |

### Standard drive solutions with braking - Standard architectures

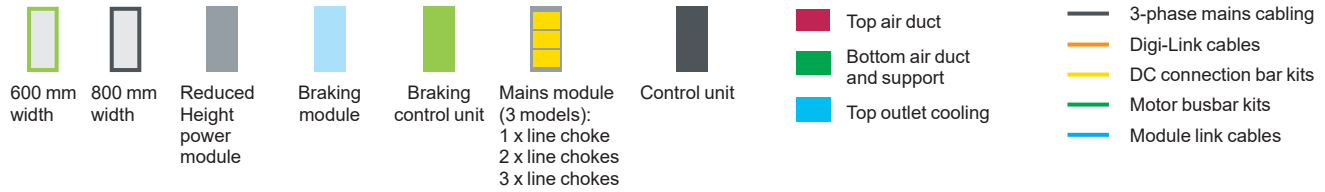
|             |                                 |                                 |                                   |                                   |
|-------------|---------------------------------|---------------------------------|-----------------------------------|-----------------------------------|
|             |                                 |                                 |                                   |                                   |
|             | 1 x APM, 1 x BM<br>600 mm width | 2 x APM, 1 x BM<br>800 mm width | 3 x APM, 1 x BM<br>1,200 mm width | 4 x APM, 2 x BM<br>1,600 mm width |
| 380...480 V | 110 to 160 kW                   | 200 to 315 kW                   | 355 to 500 kW                     | 560 to 630 kW                     |
| 500...690 V | 75 to 200 kW                    | 160 to 400 kW                   | 355 to 630 kW                     | 560 to 800 kW                     |

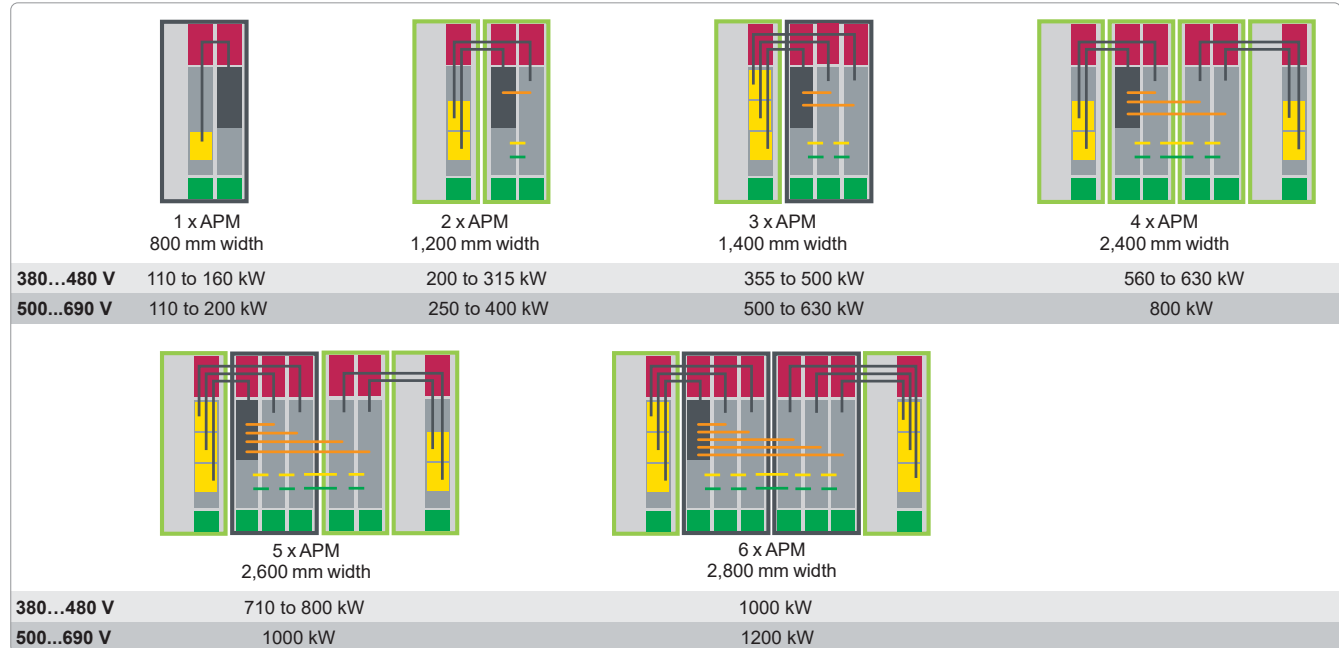
|             |                                   |                                   |
|-------------|-----------------------------------|-----------------------------------|
|             |                                   |                                   |
|             | 5 x APM, 2 x BM<br>2,000 mm width | 6 x APM, 2 x BM<br>2,200 mm width |
| 380...480 V | 710 to 800 kW                     | 1000 kW                           |
| 500...690 V | 710 to 1000 kW                    | 800 to 1200 kW                    |



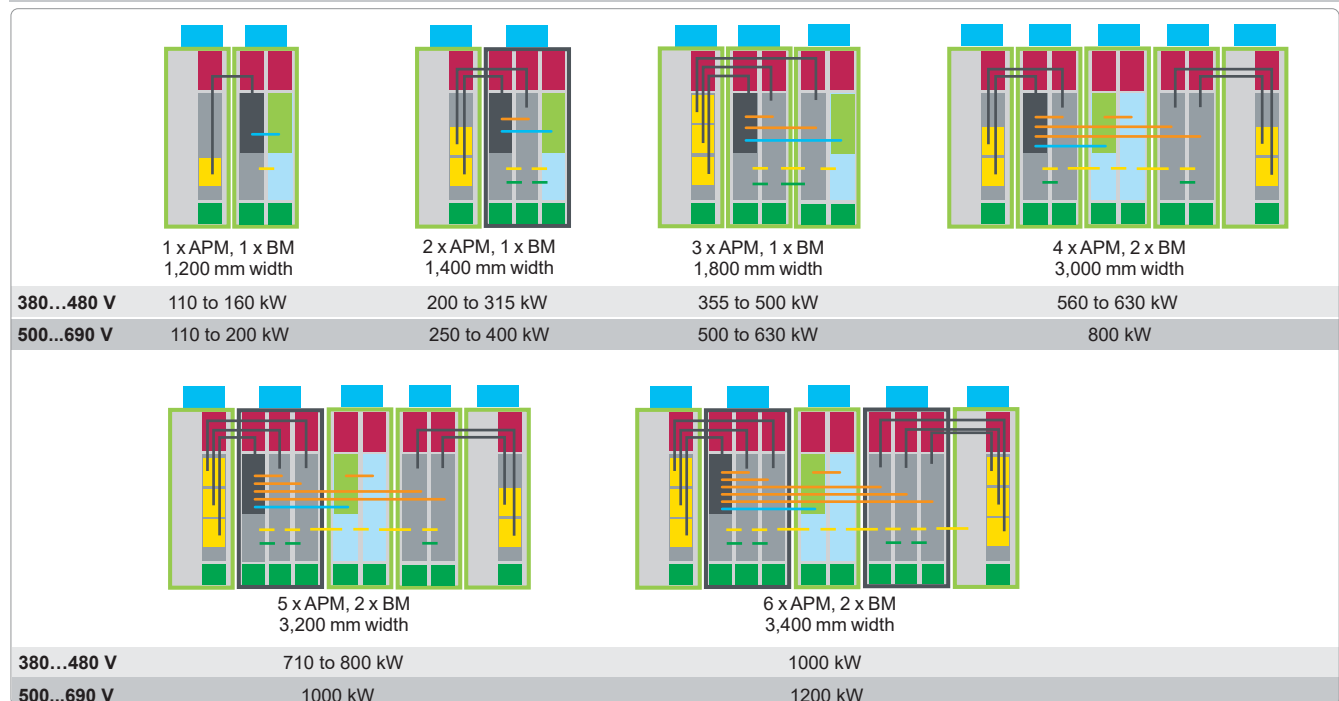
### Architectures (continued)



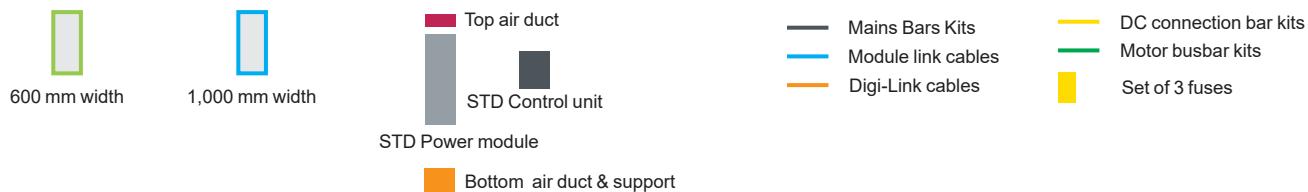
### Standard drive solution without braking - Reduced Height architectures



### Standard drive solution with braking - Reduced Height architectures

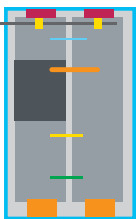
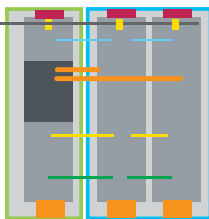
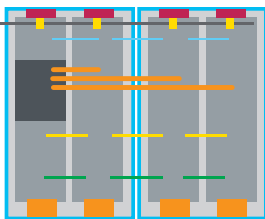
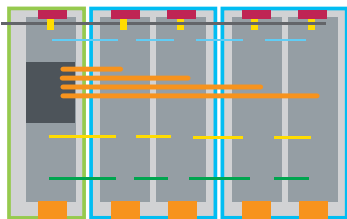
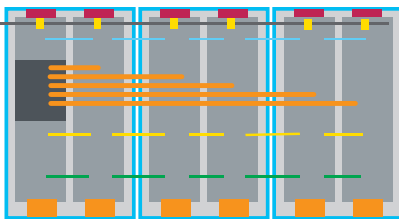
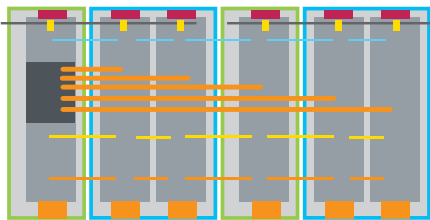


#### Architectures (continued)

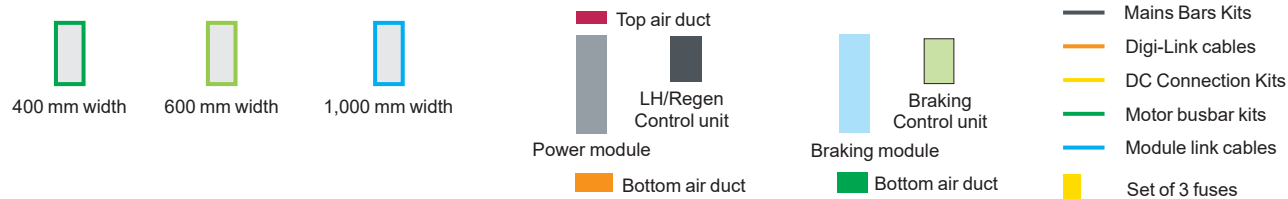


Required mechanical kits (rear plates, top bar) are not represented

#### Low Harmonic/Regen drive solutions without braking - Standard architectures

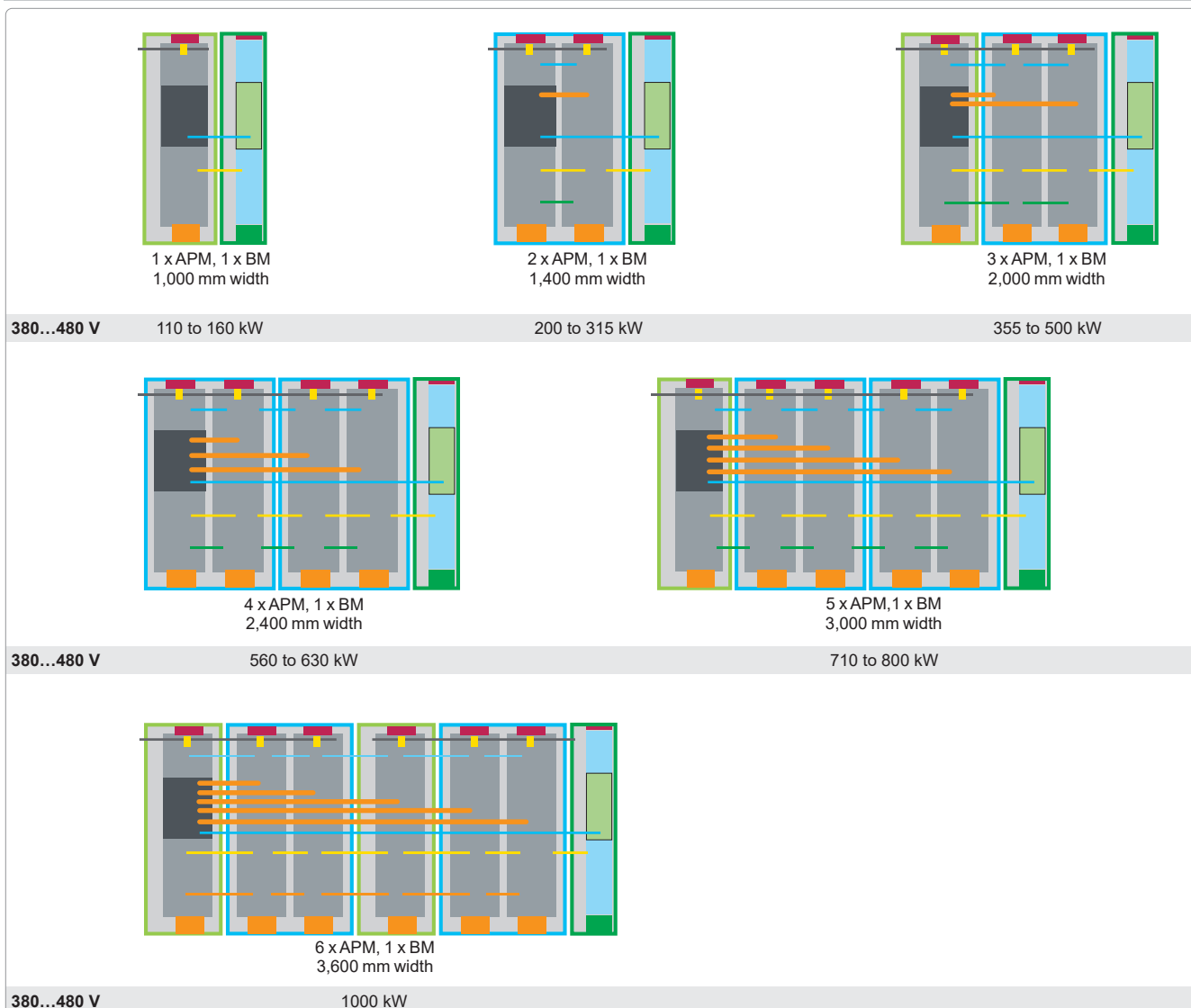
|                                                                                     |                                                                                      |                                                                                    |                                                                                     |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|    |     |  |  |
| 1 x APM<br>600 mm width                                                             | 2 x APM<br>1,000 mm width                                                            | 3 x APM<br>1,600 mm width                                                          | 4 x APM<br>2,000 mm width                                                           |
| 380...480 V                                                                         | 110 to 160 kW                                                                        | 200 to 315 kW                                                                      | 355 to 500 kW                                                                       |
| 500...690 V                                                                         | 75 to 200 kW                                                                         | 160 to 400 kW                                                                      | 355 to 630 kW                                                                       |
|  |  |                                                                                    |                                                                                     |
| 5 x APM<br>2,600 mm width                                                           | 6 x APM<br>3,000 mm width                                                            |                                                                                    |                                                                                     |
| 380...480 V                                                                         | 710 to 800 kW                                                                        | —                                                                                  |                                                                                     |
| 500...690 V                                                                         | 710 to 1000 kW                                                                       | 800 to 1200 kW                                                                     |                                                                                     |
|  |                                                                                      |                                                                                    |                                                                                     |
| 6 x APM<br>3,200 mm width                                                           |                                                                                      |                                                                                    |                                                                                     |
| 380...480 V                                                                         | 1000 kW                                                                              |                                                                                    |                                                                                     |

#### Architectures (continued)

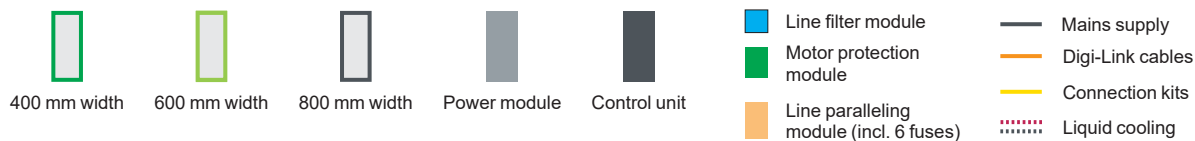


Required mechanical kits (rear plates, top bar) are not represented

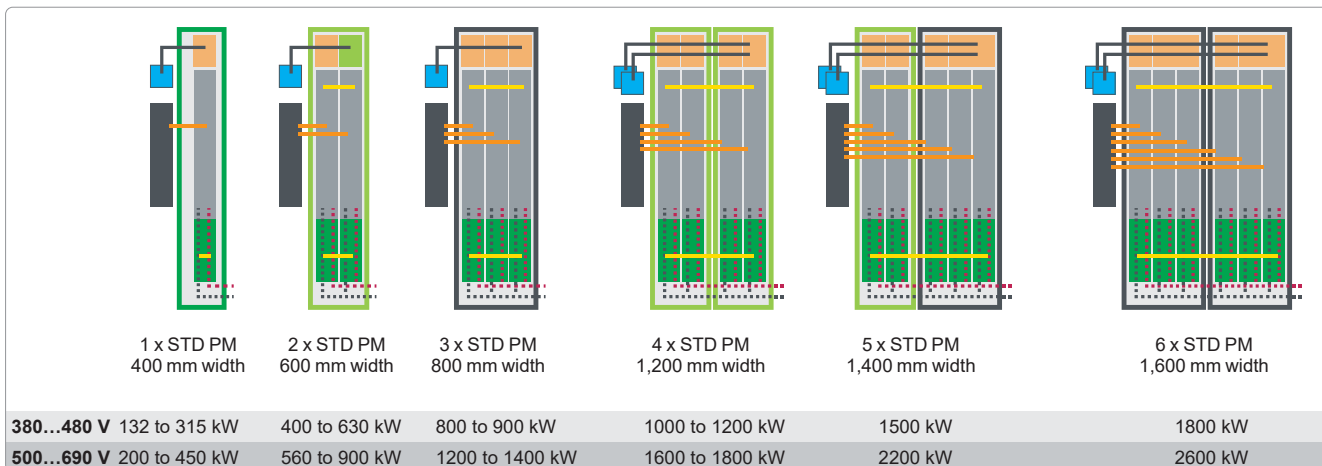
#### Low Harmonic/Regen drive solutions with braking - Standard architectures



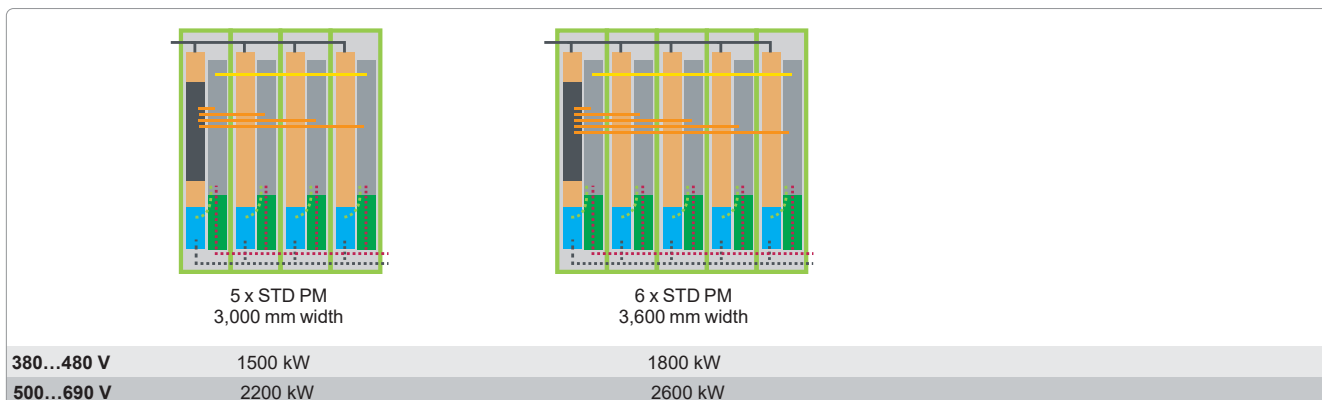
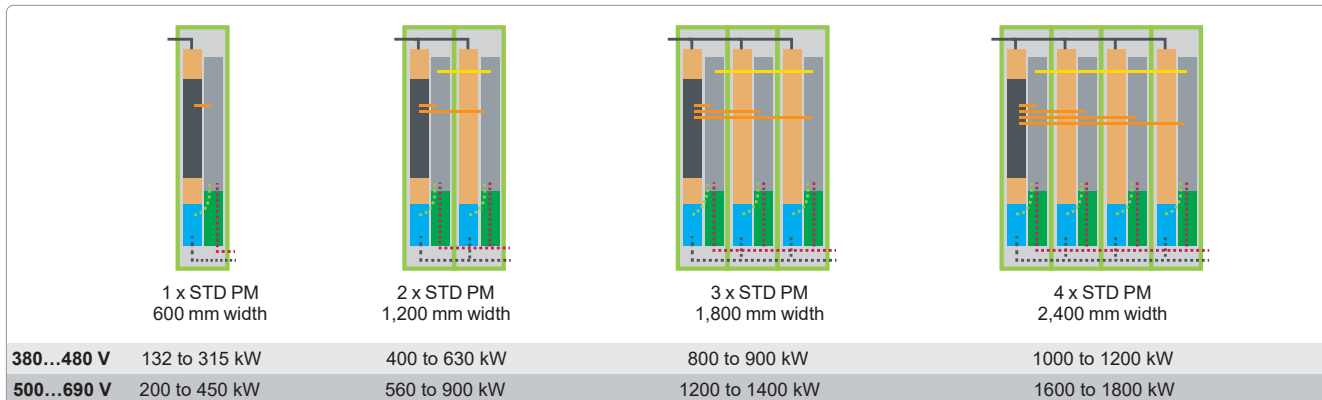
#### Architectures (continued)



#### Liquid-cooled drive solutions – Standard architectures - Compact



#### Liquid-cooled drive solutions – Standard architectures - Universal



#### Motor starters

Schneider Electric offers combinations of circuit breakers and contactors to be able to use Altivar Process Modular drives in optimum conditions (see [page 96](#)).



## Variable speed drives

Altivar Process Modular

Drives for cabinet integration

Three-phase supply voltage: 400 V 50/60 Hz



ATV6A0C11Q4



ATV6A0C25Q4

| 400 V (-15...10%) IP00 Standard Modular drives <sup>(1)</sup> |             |   |                             |                |                              |                                           |                                 |             |
|---------------------------------------------------------------|-------------|---|-----------------------------|----------------|------------------------------|-------------------------------------------|---------------------------------|-------------|
| Motor                                                         |             |   | Line supply                 |                |                              | Altivar Process                           |                                 |             |
| Power indicated on rating plate <sup>(2)</sup>                |             |   | Line current <sup>(3)</sup> | Apparent power | Maximum prospective line Isc | Maximum continuous current <sup>(2)</sup> | Max. transient current for 60 s | Reference   |
|                                                               |             |   | 400 V                       | 400 V          |                              |                                           |                                 |             |
| ND:                                                           | Normal duty |   |                             |                |                              |                                           |                                 |             |
| HD:                                                           | Heavy duty  |   |                             |                |                              |                                           |                                 |             |
| kW                                                            | HP          |   | A                           | kVA            | kA                           | A                                         | A                               |             |
| Altivar Process Modular for fluid management                  |             |   |                             |                |                              |                                           |                                 |             |
| THDi ≤ 48% at 100% load in Normal duty                        |             |   |                             |                |                              |                                           |                                 |             |
| ND                                                            | 110         | – | 198                         | 137            | 50                           | 211                                       | 232                             | ATV6A0C11Q4 |
| HD                                                            | 90          | – | 167                         | 116            | 50                           | 173                                       | 260                             |             |
| ND                                                            | 132         | – | 233                         | 161            | 50                           | 250                                       | 275                             | ATV6A0C13Q4 |
| HD                                                            | 110         | – | 198                         | 137            | 50                           | 211                                       | 317                             |             |
| ND                                                            | 160         | – | 278                         | 193            | 50                           | 302                                       | 332                             | ATV6A0C16Q4 |
| HD                                                            | 132         | – | 233                         | 161            | 50                           | 250                                       | 375                             |             |
| ND                                                            | 200         | – | 352                         | 244            | 50                           | 370                                       | 407                             | ATV6A0C20Q4 |
| HD                                                            | 160         | – | 290                         | 201            | 50                           | 302                                       | 453                             |             |
| ND                                                            | 250         | – | 432                         | 299            | 50                           | 477                                       | 525                             | ATV6A0C25Q4 |
| HD                                                            | 200         | – | 353                         | 245            | 50                           | 370                                       | 555                             |             |
| ND                                                            | 315         | – | 538                         | 373            | 50                           | 590                                       | 649                             | ATV6A0C31Q4 |
| HD                                                            | 250         | – | 432                         | 299            | 50                           | 477                                       | 716                             |             |
| ND                                                            | 355         | – | 611                         | 423            | 50                           | 660                                       | 726                             | ATV6A0C35Q4 |
| HD                                                            | 280         | – | 489                         | 339            | 50                           | 520                                       | 780                             |             |
| ND                                                            | 400         | – | 681                         | 472            | 50                           | 730                                       | 803                             | ATV6A0C40Q4 |
| HD                                                            | 315         | – | 545                         | 378            | 50                           | 590                                       | 885                             |             |
| ND                                                            | 450         | – | 764                         | 529            | 50                           | 830                                       | 913                             | ATV6A0C45Q4 |
| HD                                                            | 355         | – | 611                         | 423            | 50                           | 660                                       | 990                             |             |
| ND                                                            | 500         | – | 846                         | 586            | 50                           | 900                                       | 990                             | ATV6A0C50Q4 |
| HD                                                            | 400         | – | 681                         | 472            | 50                           | 730                                       | 1095                            |             |
| ND                                                            | 560         | – | 948                         | 657            | 50                           | 1020                                      | 1122                            | ATV6A0C56Q4 |
| HD                                                            | 450         | – | 767                         | 531            | 50                           | 830                                       | 1245                            |             |
| ND                                                            | 630         | – | 1058                        | 733            | 50                           | 1140                                      | 1254                            | ATV6A0C63Q4 |
| HD                                                            | 500         | – | 849                         | 588            | 50                           | 900                                       | 1350                            |             |
| ND                                                            | 710         | – | 1192                        | 826            | 50                           | 1260                                      | 1386                            | ATV6A0C71Q4 |
| HD                                                            | 560         | – | 951                         | 659            | 50                           | 1020                                      | 1530                            |             |
| ND                                                            | 800         | – | 1335                        | 925            | 50                           | 1420                                      | 1562                            | ATV6A0C80Q4 |
| HD                                                            | 630         | – | 1061                        | 735            | 50                           | 1140                                      | 1710                            |             |
| ND                                                            | 1000        | – | 1692                        | 1172           | 50                           | 1770                                      | 1947                            | ATV6A0M10Q4 |
| HD                                                            | 800         | – | 1362                        | 944            | 50                           | 1420                                      | 2130                            |             |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual PHA2451702).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

**Note:** Altivar Process Modular Standard drives can be designed as Reduced Height versions for integration in 1.6 m/5.25 ft cabinets.

## Variable speed drives

Altivar Process Modular

Drives for cabinet integration

Three-phase supply voltage: 400 V 50/60 Hz



ATV9A0C16Q4



ATV9A0C20Q4

| 400 V (-15...10%) IP00 Standard Modular drives (continued) (1) |      |   |                  |                |                              |                                |                                 |             |
|----------------------------------------------------------------|------|---|------------------|----------------|------------------------------|--------------------------------|---------------------------------|-------------|
| Motor                                                          |      |   | Line supply      |                |                              | Altivar Process                |                                 |             |
| Power indicated on rating plate (2)                            |      |   | Line current (3) | Apparent power | Maximum prospective line Isc | Maximum continuous current (2) | Max. transient current for 60 s | Reference   |
|                                                                |      |   | 400 V            | 400 V          |                              |                                |                                 |             |
| ND: Normal duty                                                |      |   |                  |                |                              |                                |                                 |             |
| HD: Heavy duty                                                 |      |   |                  |                |                              |                                |                                 |             |
| kW                                                             | HP   |   | A                | kVA            | kA                           | A                              | A                               |             |
| Altivar Process Modular for demanding applications             |      |   |                  |                |                              |                                |                                 |             |
| THDi ≤ 48% at 100% load in Normal duty                         |      |   |                  |                |                              |                                |                                 |             |
| ND                                                             | 110  | – | 198              | 135            | 50                           | 211                            | 253                             | ATV9A0C11Q4 |
| HD                                                             | 90   | – | 167              | 114            | 50                           | 173                            | 260                             |             |
| ND                                                             | 132  | – | 233              | 161            | 50                           | 250                            | 300                             | ATV9A0C13Q4 |
| HD                                                             | 110  | – | 198              | 136            | 50                           | 211                            | 317                             |             |
| ND                                                             | 160  | – | 278              | 192            | 50                           | 302                            | 362                             | ATV9A0C16Q4 |
| HD                                                             | 132  | – | 233              | 161            | 50                           | 250                            | 375                             |             |
| ND                                                             | 200  | – | 352              | 242            | 50                           | 370                            | 444                             | ATV9A0C20Q4 |
| HD                                                             | 160  | – | 290              | 198            | 50                           | 302                            | 453                             |             |
| ND                                                             | 250  | – | 432              | 299            | 50                           | 477                            | 572                             | ATV9A0C25Q4 |
| HD                                                             | 200  | – | 353              | 245            | 50                           | 370                            | 555                             |             |
| ND                                                             | 315  | – | 538              | 373            | 50                           | 590                            | 708                             | ATV9A0C31Q4 |
| HD                                                             | 250  | – | 432              | 299            | 50                           | 477                            | 716                             |             |
| ND                                                             | 355  | – | 611              | 423            | 50                           | 660                            | 792                             | ATV9A0C35Q4 |
| HD                                                             | 280  | – | 489              | 339            | 50                           | 520                            | 780                             |             |
| ND                                                             | 400  | – | 681              | 472            | 50                           | 730                            | 876                             | ATV9A0C40Q4 |
| HD                                                             | 315  | – | 545              | 378            | 50                           | 590                            | 885                             |             |
| ND                                                             | 450  | – | 764              | 529            | 50                           | 830                            | 996                             | ATV9A0C45Q4 |
| HD                                                             | 355  | – | 611              | 423            | 50                           | 660                            | 990                             |             |
| ND                                                             | 500  | – | 846              | 586            | 50                           | 900                            | 1080                            | ATV9A0C50Q4 |
| HD                                                             | 400  | – | 681              | 472            | 50                           | 730                            | 1095                            |             |
| ND                                                             | 560  | – | 948              | 657            | 50                           | 1020                           | 1224                            | ATV9A0C56Q4 |
| HD                                                             | 450  | – | 767              | 531            | 50                           | 830                            | 1245                            |             |
| ND                                                             | 630  | – | 1058             | 733            | 50                           | 1140                           | 1368                            | ATV9A0C63Q4 |
| HD                                                             | 500  | – | 849              | 588            | 50                           | 900                            | 1350                            |             |
| ND                                                             | 710  | – | 1192             | 826            | 50                           | 1260                           | 1512                            | ATV9A0C71Q4 |
| HD                                                             | 560  | – | 951              | 659            | 50                           | 1020                           | 1530                            |             |
| ND                                                             | 800  | – | 1335             | 925            | 50                           | 1420                           | 1704                            | ATV9A0C80Q4 |
| HD                                                             | 630  | – | 1061             | 735            | 50                           | 1140                           | 1710                            |             |
| ND                                                             | 1000 | – | 1692             | 1172           | 50                           | 1770                           | 1947                            | ATV9A0M10Q4 |
| HD                                                             | 800  | – | 1362             | 944            | 50                           | 1420                           | 2130                            |             |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual PHA2451702).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

**Note:** Altivar Process Modular Standard drives can be designed as Reduced Height versions for integration in 1.6 m/5.25 ft cabinets.

## Variable speed drives

Altivar Process Modular

Drives for cabinet integration

Three-phase supply voltage: 440 V 50/60 Hz



ATV6A0C20R4



ATV6A0C35R4

440 V (-15...10%) IP00 Standard Modular drives <sup>(1)</sup>

| Motor                                          |             |   | Line supply                 |                |                              | Altivar Process                           |                                 |             |
|------------------------------------------------|-------------|---|-----------------------------|----------------|------------------------------|-------------------------------------------|---------------------------------|-------------|
| Power indicated on rating plate <sup>(2)</sup> |             |   | Line current <sup>(3)</sup> | Apparent power | Maximum prospective line Isc | Maximum continuous current <sup>(2)</sup> | Max. transient current for 60 s | Reference   |
|                                                |             |   | 440 V                       | 440 V          |                              |                                           |                                 |             |
| ND:                                            | Normal duty |   |                             |                |                              |                                           |                                 |             |
| HD:                                            | Heavy duty  |   |                             |                |                              |                                           |                                 |             |
| kW                                             | HP          |   | A                           | kVA            | kA                           | A                                         | A                               |             |
| Altivar Process Modular for fluid management   |             |   |                             |                |                              |                                           |                                 |             |
| THDi ≤ 48% at 100% load in Normal duty         |             |   |                             |                |                              |                                           |                                 |             |
| ND                                             | 110         | – | 183                         | 139            | 50                           | 211                                       | 232                             | ATV6A0C11R4 |
| HD                                             | 90          | – | 155                         | 118            | 50                           | 173                                       | 260                             |             |
| ND                                             | 132         | – | 214                         | 163            | 50                           | 250                                       | 275                             | ATV6A0C13R4 |
| HD                                             | 110         | – | 183                         | 139            | 50                           | 211                                       | 317                             |             |
| ND                                             | 160         | – | 255                         | 194            | 50                           | 302                                       | 332                             | ATV6A0C16R4 |
| HD                                             | 132         | – | 214                         | 163            | 50                           | 250                                       | 375                             |             |
| ND                                             | 160         | – | 325                         | 248            | 50                           | 370                                       | 407                             | ATV6A0C20R4 |
| HD                                             | 160         | – | 269                         | 205            | 50                           | 302                                       | 453                             |             |
| ND                                             | 250         | – | 396                         | 302            | 50                           | 477                                       | 525                             | ATV6A0C25R4 |
| HD                                             | 200         | – | 325                         | 248            | 50                           | 370                                       | 555                             |             |
| ND                                             | 315         | – | 493                         | 376            | 50                           | 590                                       | 649                             | ATV6A0C31R4 |
| HD                                             | 250         | – | 396                         | 302            | 50                           | 477                                       | 716                             |             |
| ND                                             | 355         | – | 559                         | 426            | 50                           | 660                                       | 726                             | ATV6A0C35R4 |
| HD                                             | 280         | – | 450                         | 343            | 50                           | 520                                       | 780                             |             |
| ND                                             | 400         | – | 623                         | 475            | 50                           | 730                                       | 803                             | ATV6A0C40R4 |
| HD                                             | 315         | – | 501                         | 382            | 50                           | 590                                       | 885                             |             |
| ND                                             | 450         | – | 697                         | 531            | 50                           | 830                                       | 913                             | ATV6A0C45R4 |
| HD                                             | 355         | – | 559                         | 426            | 50                           | 660                                       | 990                             |             |
| ND                                             | 500         | – | 771                         | 588            | 50                           | 900                                       | 990                             | ATV6A0C50R4 |
| HD                                             | 400         | – | 623                         | 475            | 50                           | 730                                       | 1095                            |             |
| ND                                             | 560         | – | 865                         | 659            | 50                           | 1020                                      | 1122                            | ATV6A0C56R4 |
| HD                                             | 450         | – | 703                         | 536            | 50                           | 830                                       | 1245                            |             |
| ND                                             | 630         | – | 965                         | 735            | 50                           | 1140                                      | 1254                            | ATV6A0C63R4 |
| HD                                             | 500         | – | 776                         | 591            | 50                           | 900                                       | 1350                            |             |
| ND                                             | 710         | – | 1087                        | 828            | 50                           | 1260                                      | 1386                            | ATV6A0C71R4 |
| HD                                             | 580         | – | 869                         | 662            | 50                           | 1020                                      | 1530                            |             |
| ND                                             | 800         | – | 1216                        | 927            | 50                           | 1420                                      | 1562                            | ATV6A0C80R4 |
| HD                                             | 630         | – | 968                         | 738            | 50                           | 1140                                      | 1710                            |             |
| ND                                             | 1000        | – | 1542                        | 1175           | 50                           | 1770                                      | 1947                            | ATV6A0M10R4 |
| HD                                             | 800         | – | 1246                        | 950            | 50                           | 1420                                      | 2130                            |             |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual PHA2451702).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

**Note:** Altivar Process Modular Standard drives can be designed as Reduced Height versions for integration in 1.6 m/5.25 ft cabinets.

## Variable speed drives

Altivar Process Modular

Drives for cabinet integration

Three-phase supply voltage: 440 V 50/60 Hz



ATV9A0C31R4



ATV9A0C40R4

| 440 V (-15...10%) IP00 Standard Modular drives (continued) (1) |      |   |                  |                |                              |                                |                                 |             |
|----------------------------------------------------------------|------|---|------------------|----------------|------------------------------|--------------------------------|---------------------------------|-------------|
| Motor                                                          |      |   | Line supply      |                |                              | Altivar Process                |                                 |             |
| Power indicated on rating plate (2)                            |      |   | Line current (3) | Apparent power | Maximum prospective line Isc | Maximum continuous current (2) | Max. transient current for 60 s | Reference   |
|                                                                |      |   | 440 V            | 440 V          |                              |                                |                                 |             |
| ND: Normal duty                                                |      |   |                  |                |                              |                                |                                 |             |
| HD: Heavy duty                                                 |      |   |                  |                |                              |                                |                                 |             |
| kW                                                             | HP   |   | A                | kVA            | kA                           | A                              | A                               |             |
| Altivar Process Modular for demanding applications             |      |   |                  |                |                              |                                |                                 |             |
| THDi ≤ 48% at 100% load in Normal duty                         |      |   |                  |                |                              |                                |                                 |             |
| ND                                                             | 110  | – | 183              | 136            | 50                           | 211                            | 253                             | ATV9A0C11R4 |
| HD                                                             | 90   | – | 155              | 115            | 50                           | 173                            | 260                             |             |
| ND                                                             | 132  | – | 214              | 162            | 50                           | 250                            | 300                             | ATV9A0C13R4 |
| HD                                                             | 110  | – | 183              | 138            | 50                           | 211                            | 317                             |             |
| ND                                                             | 160  | – | 255              | 194            | 50                           | 302                            | 362                             | ATV9A0C16R4 |
| HD                                                             | 132  | – | 214              | 162            | 50                           | 250                            | 375                             |             |
| ND                                                             | 160  | – | 325              | 245            | 50                           | 370                            | 444                             | ATV9A0C20R4 |
| HD                                                             | 160  | – | 269              | 201            | 50                           | 302                            | 453                             |             |
| ND                                                             | 250  | – | 396              | 302            | 50                           | 477                            | 572                             | ATV9A0C25R4 |
| HD                                                             | 200  | – | 325              | 248            | 50                           | 370                            | 555                             |             |
| ND                                                             | 315  | – | 493              | 376            | 50                           | 590                            | 708                             | ATV9A0C31R4 |
| HD                                                             | 250  | – | 396              | 302            | 50                           | 477                            | 716                             |             |
| ND                                                             | 355  | – | 559              | 426            | 50                           | 660                            | 792                             | ATV9A0C35R4 |
| HD                                                             | 280  | – | 450              | 343            | 50                           | 520                            | 780                             |             |
| ND                                                             | 400  | – | 623              | 475            | 50                           | 730                            | 876                             | ATV9A0C40R4 |
| HD                                                             | 315  | – | 501              | 382            | 50                           | 590                            | 885                             |             |
| ND                                                             | 450  | – | 697              | 531            | 50                           | 830                            | 996                             | ATV9A0C45R4 |
| HD                                                             | 355  | – | 559              | 426            | 50                           | 660                            | 990                             |             |
| ND                                                             | 500  | – | 771              | 588            | 50                           | 900                            | 1080                            | ATV9A0C50R4 |
| HD                                                             | 400  | – | 623              | 475            | 50                           | 730                            | 1095                            |             |
| ND                                                             | 560  | – | 865              | 659            | 50                           | 1020                           | 1224                            | ATV9A0C56R4 |
| HD                                                             | 450  | – | 703              | 536            | 50                           | 830                            | 1245                            |             |
| ND                                                             | 630  | – | 965              | 735            | 50                           | 1140                           | 1368                            | ATV9A0C63R4 |
| HD                                                             | 500  | – | 776              | 591            | 50                           | 900                            | 1350                            |             |
| ND                                                             | 710  | – | 1087             | 828            | 50                           | 1260                           | 1512                            | ATV9A0C71R4 |
| HD                                                             | 580  | – | 869              | 662            | 50                           | 1020                           | 1530                            |             |
| ND                                                             | 800  | – | 1216             | 927            | 50                           | 1420                           | 1704                            | ATV9A0C80R4 |
| HD                                                             | 630  | – | 968              | 738            | 50                           | 1140                           | 1710                            |             |
| ND                                                             | 1000 | – | 1542             | 1175           | 50                           | 1770                           | 1947                            | ATV9A0M10R4 |
| HD                                                             | 800  | – | 1246             | 950            | 50                           | 1420                           | 2130                            |             |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual PHA2451702).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

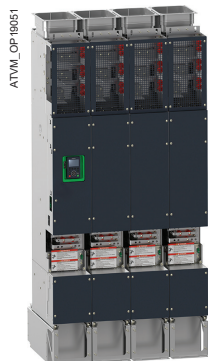
**Note:** Altivar Process Modular Standard drives can be designed as Reduced Height versions for integration in 1.6 m/5.25 ft cabinets.

## Variable speed drives

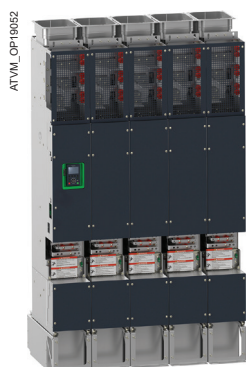
Altivar Process Modular

Drives for cabinet integration

Three-phase supply voltage: 480 V 50/60 Hz



ATV6A0C56T4



ATV6A0C80T4

| 480 V (-15...10%) IP00 Standard Modular drives <sup>(1)</sup> |             |      |                             |                |                              |                                           |                                 |             |
|---------------------------------------------------------------|-------------|------|-----------------------------|----------------|------------------------------|-------------------------------------------|---------------------------------|-------------|
| Motor                                                         |             |      | Line supply                 |                |                              | Altivar Process                           |                                 |             |
| Power indicated on rating plate <sup>(2)</sup>                |             |      | Line current <sup>(3)</sup> | Apparent power | Maximum prospective line Isc | Maximum continuous current <sup>(2)</sup> | Max. transient current for 60 s | Reference   |
|                                                               |             |      | 480 V                       | 480 V          |                              |                                           |                                 |             |
| ND:                                                           | Normal duty |      |                             |                |                              |                                           |                                 |             |
| HD:                                                           | Heavy duty  |      |                             |                |                              |                                           |                                 |             |
| kW                                                            | HP          |      | A                           | kVA            | kA                           | A                                         | A                               |             |
| Altivar Process Modular for fluid management                  |             |      |                             |                |                              |                                           |                                 |             |
| THDi ≤ 48% at 100% load in Normal duty                        |             |      |                             |                |                              |                                           |                                 |             |
| ND                                                            | –           | 150  | 168                         | 140            | 50                           | 211                                       | 232                             | ATV6A0C11T4 |
| HD                                                            | –           | 125  | 145                         | 121            | 50                           | 173                                       | 260                             |             |
| ND                                                            | –           | 200  | 218                         | 181            | 50                           | 250                                       | 275                             | ATV6A0C13T4 |
| HD                                                            | –           | 150  | 168                         | 140            | 50                           | 211                                       | 317                             |             |
| ND                                                            | –           | 250  | 268                         | 223            | 50                           | 302                                       | 332                             | ATV6A0C16T4 |
| HD                                                            | –           | 200  | 218                         | 181            | 50                           | 250                                       | 375                             |             |
| ND                                                            | –           | 300  | 328                         | 273            | 50                           | 370                                       | 407                             | ATV6A0C20T4 |
| HD                                                            | –           | 250  | 280                         | 233            | 50                           | 302                                       | 453                             |             |
| ND                                                            | –           | 400  | 427                         | 355            | 50                           | 477                                       | 525                             | ATV6A0C25T4 |
| HD                                                            | –           | 300  | 328                         | 273            | 50                           | 370                                       | 555                             |             |
| ND                                                            | –           | 500  | 528                         | 439            | 50                           | 590                                       | 649                             | ATV6A0C31T4 |
| HD                                                            | –           | 400  | 427                         | 355            | 50                           | 477                                       | 716                             |             |
| ND                                                            | –           | 550  | 586                         | 487            | 50                           | 660                                       | 726                             | ATV6A0C35T4 |
| HD                                                            | –           | 450  | 486                         | 404            | 50                           | 520                                       | 780                             |             |
| ND                                                            | –           | 600  | 634                         | 527            | 50                           | 730                                       | 803                             | ATV6A0C40T4 |
| HD                                                            | –           | 500  | 536                         | 446            | 50                           | 590                                       | 885                             |             |
| ND                                                            | –           | 650  | 685                         | 569            | 50                           | 830                                       | 913                             | ATV6A0C45T4 |
| HD                                                            | –           | 550  | 586                         | 487            | 50                           | 660                                       | 990                             |             |
| ND                                                            | –           | 700  | 736                         | 612            | 50                           | 900                                       | 990                             | ATV6A0C50T4 |
| HD                                                            | –           | 600  | 634                         | 527            | 50                           | 730                                       | 1095                            |             |
| ND                                                            | –           | 800  | 842                         | 700            | 50                           | 1020                                      | 1122                            | ATV6A0C56T4 |
| HD                                                            | –           | 650  | 690                         | 574            | 50                           | 830                                       | 1245                            |             |
| ND                                                            | –           | 900  | 939                         | 781            | 50                           | 1140                                      | 1254                            | ATV6A0C63T4 |
| HD                                                            | –           | 700  | 740                         | 615            | 50                           | 900                                       | 1350                            |             |
| ND                                                            | –           | 1000 | 1044                        | 868            | 50                           | 1260                                      | 1386                            | ATV6A0C71T4 |
| HD                                                            | –           | 800  | 846                         | 703            | 50                           | 1020                                      | 1530                            |             |
| ND                                                            | –           | 1100 | 1146                        | 953            | 50                           | 1420                                      | 1562                            | ATV6A0C80T4 |
| HD                                                            | –           | 900  | 942                         | 783            | 50                           | 1140                                      | 1710                            |             |
| ND                                                            | –           | 1400 | 1472                        | 1224           | 50                           | 1770                                      | 1947                            | ATV6A0M10T4 |
| HD                                                            | –           | 1100 | 1268                        | 1054           | 50                           | 1420                                      | 2130                            |             |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual PHA2451702).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

**Note:** Altivar Process Modular Standard drives can be designed as Reduced Height versions for integration in 1.6 m/5.25 ft cabinets.

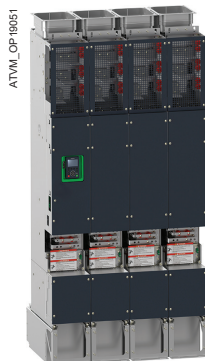


## Variable speed drives

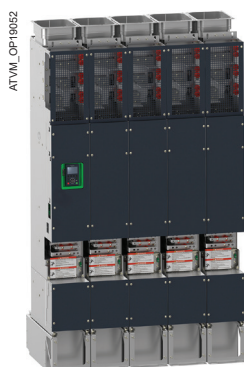
Altivar Process Modular

Drives for cabinet integration

Three-phase supply voltage: 480 V 50/60 Hz



ATV9A0C63T4



ATV9A0C80T4

## 480 V (-15...10%) IP00 Standard Modular drives (continued) (1)

| Motor                                              |    |      | Line supply      |                |                              | Altivar Process                |                                 |             |
|----------------------------------------------------|----|------|------------------|----------------|------------------------------|--------------------------------|---------------------------------|-------------|
| Power indicated on rating plate (2)                |    |      | Line current (3) | Apparent power | Maximum prospective line Isc | Maximum continuous current (2) | Max. transient current for 60 s | Reference   |
|                                                    |    |      | 480 V            | 480 V          |                              |                                |                                 |             |
| ND: Normal duty                                    |    |      |                  |                |                              |                                |                                 |             |
| HD: Heavy duty                                     |    |      |                  |                |                              |                                |                                 |             |
| kW                                                 | HP |      | A                | kVA            | kA                           | A                              | A                               |             |
| Altivar Process Modular for demanding applications |    |      |                  |                |                              |                                |                                 |             |
| THDi ≤ 48% at 100% load in Normal duty             |    |      |                  |                |                              |                                |                                 |             |
| ND                                                 | –  | 150  | 168              | 138            | 50                           | 211                            | 253                             | ATV9A0C11T4 |
| HD                                                 | –  | 125  | 145              | 118            | 50                           | 173                            | 260                             |             |
| ND                                                 | –  | 200  | 218              | 180            | 50                           | 250                            | 300                             | ATV9A0C13T4 |
| HD                                                 | –  | 150  | 168              | 140            | 50                           | 211                            | 317                             |             |
| ND                                                 | –  | 250  | 268              | 223            | 50                           | 302                            | 362                             | ATV9A0C16T4 |
| HD                                                 | –  | 200  | 218              | 180            | 50                           | 250                            | 375                             |             |
| ND                                                 | –  | 300  | 328              | 271            | 50                           | 370                            | 444                             | ATV9A0C20T4 |
| HD                                                 | –  | 250  | 280              | 230            | 50                           | 302                            | 453                             |             |
| ND                                                 | –  | 400  | 427              | 355            | 50                           | 477                            | 572                             | ATV9A0C25T4 |
| HD                                                 | –  | 300  | 328              | 273            | 50                           | 370                            | 555                             |             |
| ND                                                 | –  | 500  | 528              | 439            | 50                           | 590                            | 708                             | ATV9A0C31T4 |
| HD                                                 | –  | 400  | 427              | 355            | 50                           | 477                            | 716                             |             |
| ND                                                 | –  | 550  | 586              | 487            | 50                           | 660                            | 792                             | ATV9A0C35T4 |
| HD                                                 | –  | 450  | 486              | 404            | 50                           | 520                            | 780                             |             |
| ND                                                 | –  | 600  | 634              | 527            | 50                           | 730                            | 876                             | ATV9A0C40T4 |
| HD                                                 | –  | 500  | 536              | 446            | 50                           | 590                            | 885                             |             |
| ND                                                 | –  | 650  | 685              | 569            | 50                           | 830                            | 996                             | ATV9A0C45T4 |
| HD                                                 | –  | 550  | 586              | 487            | 50                           | 660                            | 990                             |             |
| ND                                                 | –  | 700  | 736              | 612            | 50                           | 900                            | 1080                            | ATV9A0C50T4 |
| HD                                                 | –  | 600  | 634              | 527            | 50                           | 730                            | 1095                            |             |
| ND                                                 | –  | 800  | 842              | 700            | 50                           | 1020                           | 1224                            | ATV9A0C56T4 |
| HD                                                 | –  | 650  | 690              | 574            | 50                           | 830                            | 1245                            |             |
| ND                                                 | –  | 900  | 939              | 781            | 50                           | 1140                           | 1368                            | ATV9A0C63T4 |
| HD                                                 | –  | 700  | 740              | 615            | 50                           | 900                            | 1350                            |             |
| ND                                                 | –  | 1000 | 1044             | 868            | 50                           | 1260                           | 1512                            | ATV9A0C71T4 |
| HD                                                 | –  | 800  | 846              | 703            | 50                           | 1020                           | 1530                            |             |
| ND                                                 | –  | 1100 | 1146             | 953            | 50                           | 1420                           | 1704                            | ATV9A0C80T4 |
| HD                                                 | –  | 900  | 942              | 783            | 50                           | 1140                           | 1710                            |             |
| ND                                                 | –  | 1400 | 1472             | 1224           | 50                           | 1770                           | 1947                            | ATV9A0M10T4 |
| HD                                                 | –  | 1100 | 1268             | 1054           | 50                           | 1420                           | 2130                            |             |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual PHA2451702).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

**Note:** Altivar Process Modular Standard drives can be designed as Reduced Height versions for integration in 1.6 m/5.25 ft cabinets.

## Variable speed drives

Altivar Process Modular

Drives for cabinet integration

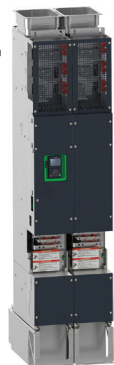
Three-phase supply voltage: 500 V 50/60 Hz

ATV6A0C11N6



ATV6A0C11N6

ATV6A0C25N6



ATV6A0C25N6

| 500 V (-10...15%) IP00 Standard Modular drives <sup>(1)</sup> |             |   |                             |                |                              |                                           |                                 |             |
|---------------------------------------------------------------|-------------|---|-----------------------------|----------------|------------------------------|-------------------------------------------|---------------------------------|-------------|
| Motor                                                         |             |   | Line supply                 |                |                              | Altivar Process                           |                                 |             |
| Power indicated on rating plate <sup>(2)</sup>                |             |   | Line current <sup>(3)</sup> | Apparent power | Maximum prospective line Isc | Maximum continuous current <sup>(2)</sup> | Max. transient current for 60 s | Reference   |
|                                                               |             |   | 500 V                       | 500 V          |                              |                                           |                                 |             |
| ND:                                                           | Normal duty |   |                             |                |                              |                                           |                                 |             |
| HD:                                                           | Heavy duty  |   |                             |                |                              |                                           |                                 |             |
| kW                                                            | HP          |   | A                           | kVA            | kA                           | A                                         | A                               |             |
| Altivar Process Modular for fluid management                  |             |   |                             |                |                              |                                           |                                 |             |
| THDi ≤ 48% at 100% load in Normal duty                        |             |   |                             |                |                              |                                           |                                 |             |
| ND                                                            | 75          | – | 110                         | 95             | 50                           | 125                                       | 138                             | ATV6A0C11N6 |
| HD                                                            | 55          | – | 83                          | 72             | 50                           | 105                                       | 158                             |             |
| ND                                                            | 90          | – | 129                         | 112            | 50                           | 145                                       | 160                             | ATV6A0C13N6 |
| HD                                                            | 75          | – | 110                         | 95             | 50                           | 125                                       | 188                             |             |
| ND                                                            | 110         | – | 154                         | 133            | 50                           | 175                                       | 193                             | ATV6A0C16N6 |
| HD                                                            | 90          | – | 129                         | 112            | 50                           | 145                                       | 218                             |             |
| ND                                                            | 132         | – | 183                         | 158            | 50                           | 215                                       | 237                             | ATV6A0C20N6 |
| HD                                                            | 110         | – | 154                         | 133            | 50                           | 175                                       | 263                             |             |
| ND                                                            | 160         | – | 225                         | 195            | 50                           | 275                                       | 303                             | ATV6A0C25N6 |
| HD                                                            | 132         | – | 190                         | 165            | 50                           | 215                                       | 323                             |             |
| ND                                                            | 220         | – | 303                         | 262            | 50                           | 340                                       | 374                             | ATV6A0C31N6 |
| HD                                                            | 160         | – | 225                         | 195            | 50                           | 275                                       | 413                             |             |
| ND                                                            | 280         | – | 380                         | 329            | 50                           | 425                                       | 468                             | ATV6A0C40N6 |
| HD                                                            | 220         | – | 303                         | 262            | 50                           | 340                                       | 510                             |             |
| ND                                                            | 355         | – | 484                         | 419            | 50                           | 520                                       | 572                             | ATV6A0C50N6 |
| HD                                                            | 280         | – | 385                         | 333            | 50                           | 425                                       | 638                             |             |
| ND                                                            | 450         | – | 607                         | 526            | 50                           | 650                                       | 715                             | ATV6A0C63N6 |
| HD                                                            | 355         | – | 484                         | 419            | 50                           | 520                                       | 780                             |             |
| ND                                                            | 560         | – | 756                         | 655            | 50                           | 830                                       | 913                             | ATV6A0C80N6 |
| HD                                                            | 450         | – | 610                         | 528            | 50                           | 650                                       | 975                             |             |
| ND                                                            | 710         | – | 954                         | 826            | 50                           | 1030                                      | 1133                            | ATV6A0M10N6 |
| HD                                                            | 560         | – | 758                         | 656            | 50                           | 830                                       | 1245                            |             |
| ND                                                            | 800         | – | 1070                        | 927            | 50                           | 1230                                      | 1353                            | ATV6A0M12N6 |
| HD                                                            | 710         | – | 954                         | 826            | 50                           | 1030                                      | 1545                            |             |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual PHA2451702).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

**Note:** Altivar Process Modular Standard drives can be designed as Reduced Height versions for integration in 1.6 m/5.25 ft cabinets.

## Variable speed drives

Altivar Process Modular

Drives for cabinet integration

Three-phase supply voltage: 500 V 50/60 Hz



ATV9A0C11N6



ATV9A0C25N6

| 500 V (-10...15%) IP00 Standard Modular drives (continued) (1) |     |   |                  |                |                              |                                |                                 |             |
|----------------------------------------------------------------|-----|---|------------------|----------------|------------------------------|--------------------------------|---------------------------------|-------------|
| Motor                                                          |     |   | Line supply      |                |                              | Altivar Process                |                                 |             |
| Power indicated on rating plate (2)                            |     |   | Line current (3) | Apparent power | Maximum prospective line Isc | Maximum continuous current (2) | Max. transient current for 60 s | Reference   |
|                                                                |     |   | 500 V            | 500 V          |                              |                                |                                 |             |
| ND: Normal duty                                                |     |   |                  |                |                              |                                |                                 |             |
| HD: Heavy duty                                                 |     |   |                  |                |                              |                                |                                 |             |
| kW                                                             | HP  |   | A                | kVA            | kA                           | A                              | A                               |             |
| Altivar Process Modular for demanding applications             |     |   |                  |                |                              |                                |                                 |             |
| THDi ≤ 48% at 100% load in Normal duty                         |     |   |                  |                |                              |                                |                                 |             |
| ND                                                             | 75  | — | 110              | 95             | 50                           | 125                            | 150                             | ATV9A0C11N6 |
| HD                                                             | 55  | — | 83               | 72             | 50                           | 105                            | 158                             |             |
| ND                                                             | 90  | — | 129              | 112            | 50                           | 145                            | 174                             | ATV9A0C13N6 |
| HD                                                             | 75  | — | 110              | 95             | 50                           | 125                            | 188                             |             |
| ND                                                             | 110 | — | 154              | 133            | 50                           | 175                            | 210                             | ATV9A0C16N6 |
| HD                                                             | 90  | — | 129              | 112            | 50                           | 145                            | 218                             |             |
| ND                                                             | 132 | — | 183              | 158            | 50                           | 215                            | 258                             | ATV9A0C20N6 |
| HD                                                             | 110 | — | 154              | 133            | 50                           | 175                            | 263                             |             |
| ND                                                             | 160 | — | 225              | 195            | 50                           | 275                            | 330                             | ATV9A0C25N6 |
| HD                                                             | 132 | — | 190              | 165            | 50                           | 215                            | 323                             |             |
| ND                                                             | 220 | — | 303              | 262            | 50                           | 340                            | 408                             | ATV9A0C31N6 |
| HD                                                             | 160 | — | 225              | 195            | 50                           | 275                            | 413                             |             |
| ND                                                             | 280 | — | 380              | 329            | 50                           | 425                            | 510                             | ATV9A0C40N6 |
| HD                                                             | 220 | — | 303              | 262            | 50                           | 340                            | 510                             |             |
| ND                                                             | 355 | — | 484              | 419            | 50                           | 520                            | 624                             | ATV9A0C50N6 |
| HD                                                             | 280 | — | 385              | 333            | 50                           | 425                            | 638                             |             |
| ND                                                             | 450 | — | 607              | 526            | 50                           | 650                            | 780                             | ATV9A0C63N6 |
| HD                                                             | 355 | — | 484              | 419            | 50                           | 520                            | 780                             |             |
| ND                                                             | 560 | — | 756              | 655            | 50                           | 830                            | 996                             | ATV9A0C80N6 |
| HD                                                             | 450 | — | 610              | 528            | 50                           | 650                            | 975                             |             |
| ND                                                             | 710 | — | 954              | 826            | 50                           | 1030                           | 1236                            | ATV9A0M10N6 |
| HD                                                             | 560 | — | 758              | 656            | 50                           | 830                            | 1245                            |             |
| ND                                                             | 800 | — | 1070             | 927            | 50                           | 1230                           | 1476                            | ATV9A0M12N6 |
| HD                                                             | 710 | — | 954              | 826            | 50                           | 1030                           | 1545                            |             |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual PHA2451702).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

**Note:** Altivar Process Modular Standard drives can be designed as Reduced Height versions for integration in 1.6 m/5.25 ft cabinets.

## Variable speed drives

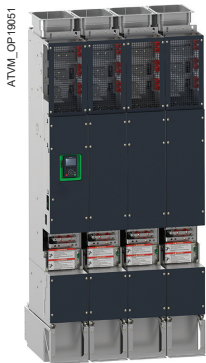
Altivar Process Modular

Drives for cabinet integration

Three-phase supply voltage: 600 V 50/60 Hz



ATV6A0C50T6



ATV6A0C80T6

| 600 V (-15...10%) IP00 Standard Modular drives <sup>(1)</sup> |    |      |                             |                |                                             |                                           |                                 |             |
|---------------------------------------------------------------|----|------|-----------------------------|----------------|---------------------------------------------|-------------------------------------------|---------------------------------|-------------|
| Motor                                                         |    |      | Line supply                 |                |                                             | Altivar Process                           |                                 |             |
| Power indicated on rating plate <sup>(2)</sup>                |    |      | Line current <sup>(3)</sup> | Apparent power | Maximum prospective line Isc <sup>(4)</sup> | Maximum continuous current <sup>(2)</sup> | Max. transient current for 60 s | Reference   |
|                                                               |    |      | 600 V                       | 600 V          |                                             |                                           |                                 |             |
| ND: Normal duty                                               |    |      |                             |                |                                             |                                           |                                 |             |
| HD: Heavy duty                                                |    |      |                             |                |                                             |                                           |                                 |             |
| kW                                                            | HP |      | A                           | kVA            | kA                                          | A                                         | A                               |             |
| Altivar Process Modular for fluid management                  |    |      |                             |                |                                             |                                           |                                 |             |
| THDi ≤ 48% at 100% load in Normal duty                        |    |      |                             |                |                                             |                                           |                                 |             |
| ND                                                            | —  | 125  | 112                         | 116            | 50                                          | 125                                       | 138                             | ATV6A0C11T6 |
| HD                                                            | —  | 100  | 92                          | 96             | 50                                          | 105                                       | 158                             |             |
| ND                                                            | —  | 150  | 131                         | 136            | 50                                          | 145                                       | 160                             | ATV6A0C13T6 |
| HD                                                            | —  | 125  | 112                         | 116            | 50                                          | 125                                       | 188                             |             |
| ND                                                            | —  | 175  | 152                         | 158            | 50                                          | 175                                       | 193                             | ATV6A0C16T6 |
| HD                                                            | —  | 150  | 131                         | 136            | 50                                          | 145                                       | 218                             |             |
| ND                                                            | —  | 200  | 172                         | 179            | 50                                          | 215                                       | 237                             | ATV6A0C20T6 |
| HD                                                            | —  | 175  | 152                         | 158            | 50                                          | 175                                       | 263                             |             |
| ND                                                            | —  | 250  | 218                         | 227            | 50                                          | 275                                       | 303                             | ATV6A0C25T6 |
| HD                                                            | —  | 200  | 179                         | 186            | 50                                          | 215                                       | 323                             |             |
| ND                                                            | —  | 350  | 298                         | 310            | 50                                          | 340                                       | 374                             | ATV6A0C31T6 |
| HD                                                            | —  | 250  | 218                         | 227            | 50                                          | 275                                       | 413                             |             |
| ND                                                            | —  | 450  | 379                         | 394            | 50                                          | 425                                       | 468                             | ATV6A0C40T6 |
| HD                                                            | —  | 350  | 298                         | 310            | 50                                          | 340                                       | 510                             |             |
| ND                                                            | —  | 550  | 464                         | 482            | 50                                          | 520                                       | 572                             | ATV6A0C50T6 |
| HD                                                            | —  | 450  | 383                         | 398            | 50                                          | 425                                       | 638                             |             |
| ND                                                            | —  | 650  | 544                         | 565            | 50                                          | 650                                       | 715                             | ATV6A0C63T6 |
| HD                                                            | —  | 550  | 464                         | 482            | 50                                          | 520                                       | 780                             |             |
| ND                                                            | —  | 800  | 670                         | 696            | 50                                          | 830                                       | 913                             | ATV6A0C80T6 |
| HD                                                            | —  | 650  | 547                         | 568            | 50                                          | 650                                       | 975                             |             |
| ND                                                            | —  | 1000 | 833                         | 866            | 50                                          | 1030                                      | 1133                            | ATV6A0M10T6 |
| HD                                                            | —  | 800  | 673                         | 699            | 50                                          | 830                                       | 1245                            |             |
| ND                                                            | —  | 1200 | 994                         | 1033           | 50                                          | 1230                                      | 1353                            | ATV6A0M12T6 |
| HD                                                            | —  | 1000 | 835                         | 835            | 50                                          | 1030                                      | 1545                            |             |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual PHA2451702).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

(4) For 600V UL certified drives, a higher SCCR is possible under some conditions. Please refer to the Integration Manual PHA2451702 for more details.

**Note:** Altivar Process Modular Standard drives can be designed as Reduced Height versions for integration in 1.6 m/5.25 ft cabinets.

## Variable speed drives

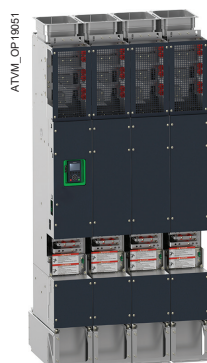
Altivar Process Modular

Drives for cabinet integration

Three-phase supply voltage: 600 V 50/60 Hz



ATV9A0C50T6



ATV9A0C80T6

| 600 V (-15...10%) IP00 Standard Modular drives (continued) (1) |    |      |                  |                |                                  |                                |                                 |             |
|----------------------------------------------------------------|----|------|------------------|----------------|----------------------------------|--------------------------------|---------------------------------|-------------|
| Motor                                                          |    |      | Line supply      |                |                                  | Altivar Process                |                                 |             |
| Power indicated on rating plate (2)                            |    |      | Line current (3) | Apparent power | Maximum prospective line Isc (4) | Maximum continuous current (2) | Max. transient current for 60 s | Reference   |
|                                                                |    |      | 600 V            | 600 V          |                                  |                                |                                 |             |
| ND: Normal duty                                                |    |      |                  |                |                                  |                                |                                 |             |
| HD: Heavy duty                                                 |    |      |                  |                |                                  |                                |                                 |             |
| kW                                                             | HP |      | A                | kVA            | kA                               | A                              | A                               |             |
| Altivar Process Modular for demanding applications             |    |      |                  |                |                                  |                                |                                 |             |
| THDi ≤ 48% at 100% load in Normal duty                         |    |      |                  |                |                                  |                                |                                 |             |
| ND                                                             | —  | 125  | 112              | 116            | 50                               | 125                            | 150                             | ATV9A0C11T6 |
| HD                                                             | —  | 100  | 92               | 96             | 50                               | 105                            | 158                             |             |
| ND                                                             | —  | 150  | 131              | 136            | 50                               | 145                            | 174                             | ATV9A0C13T6 |
| HD                                                             | —  | 125  | 112              | 116            | 50                               | 125                            | 188                             |             |
| ND                                                             | —  | 175  | 152              | 158            | 50                               | 175                            | 210                             | ATV9A0C16T6 |
| HD                                                             | —  | 150  | 131              | 136            | 50                               | 145                            | 218                             |             |
| ND                                                             | —  | 200  | 172              | 179            | 50                               | 215                            | 258                             | ATV9A0C20T6 |
| HD                                                             | —  | 175  | 152              | 158            | 50                               | 175                            | 263                             |             |
| ND                                                             | —  | 250  | 218              | 227            | 50                               | 275                            | 330                             | ATV9A0C25T6 |
| HD                                                             | —  | 200  | 179              | 186            | 50                               | 215                            | 323                             |             |
| ND                                                             | —  | 350  | 298              | 310            | 50                               | 340                            | 408                             | ATV9A0C31T6 |
| HD                                                             | —  | 250  | 218              | 227            | 50                               | 275                            | 413                             |             |
| ND                                                             | —  | 450  | 379              | 394            | 50                               | 425                            | 510                             | ATV9A0C40T6 |
| HD                                                             | —  | 350  | 298              | 310            | 50                               | 340                            | 510                             |             |
| ND                                                             | —  | 550  | 464              | 482            | 50                               | 520                            | 624                             | ATV9A0C50T6 |
| HD                                                             | —  | 450  | 383              | 398            | 50                               | 425                            | 638                             |             |
| ND                                                             | —  | 650  | 544              | 565            | 50                               | 650                            | 780                             | ATV9A0C63T6 |
| HD                                                             | —  | 550  | 464              | 482            | 50                               | 520                            | 780                             |             |
| ND                                                             | —  | 800  | 670              | 696            | 50                               | 830                            | 996                             | ATV9A0C80T6 |
| HD                                                             | —  | 650  | 547              | 568            | 50                               | 650                            | 975                             |             |
| ND                                                             | —  | 1000 | 833              | 866            | 50                               | 1030                           | 1236                            | ATV9A0M10T6 |
| HD                                                             | —  | 800  | 673              | 699            | 50                               | 830                            | 1245                            |             |
| ND                                                             | —  | 1200 | 994              | 1033           | 50                               | 1230                           | 1476                            | ATV9A0M12T6 |
| HD                                                             | —  | 1000 | 835              | 835            | 50                               | 1030                           | 1545                            |             |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual PHA2451702).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

(4) For 600V UL certified drives, a higher SCCR is possible under some conditions. Please refer to the Integration Manual PHA2451702 for more details.

**Note:** Altivar Process Modular Standard drives can be designed as Reduced Height versions for integration in 1.6 m/5.25 ft cabinets.



## Variable speed drives

Altivar Process Modular

Drives for cabinet integration

Three-phase supply voltage: 690 V 50/60 Hz

ATVM\_OP19052



ATV6A0M10Q6

ATVM\_OP19053



ATV6A0M12Q6

690 V (-15...10%) IP00 Standard Modular drives <sup>(1)</sup>

| Motor                                        |             |    | Line supply         |                   |                                    | Altivar Process                      |                                          |             |
|----------------------------------------------|-------------|----|---------------------|-------------------|------------------------------------|--------------------------------------|------------------------------------------|-------------|
| Power indicated on rating plate<br>(2)       |             |    | Line<br>current (3) | Apparent<br>power | Maximum<br>prospective<br>line Isc | Maximum<br>continuous<br>current (2) | Max.<br>transient<br>current for<br>60 s | Reference   |
|                                              |             |    | 690 V               | 690 V             |                                    |                                      |                                          |             |
| ND:                                          | Normal duty |    |                     |                   |                                    |                                      |                                          |             |
| HD:                                          | Heavy duty  |    |                     |                   |                                    |                                      |                                          |             |
|                                              | kW          | HP | A                   | kVA               | kA                                 | A                                    | A                                        |             |
| Altivar Process Modular for fluid management |             |    |                     |                   |                                    |                                      |                                          |             |
| THDi ≤ 48% at 100% load in Normal duty       |             |    |                     |                   |                                    |                                      |                                          |             |
| ND                                           | 110         | —  | 118                 | 141               | 50                                 | 125                                  | 138                                      | ATV6A0C11Q6 |
| HD                                           | 90          | —  | 100                 | 120               | 50                                 | 105                                  | 158                                      |             |
| ND                                           | 132         | —  | 138                 | 165               | 50                                 | 145                                  | 160                                      | ATV6A0C13Q6 |
| HD                                           | 110         | —  | 118                 | 141               | 50                                 | 125                                  | 188                                      |             |
| ND                                           | 160         | —  | 163                 | 195               | 50                                 | 175                                  | 193                                      | ATV6A0C16Q6 |
| HD                                           | 132         | —  | 138                 | 165               | 50                                 | 145                                  | 218                                      |             |
| ND                                           | 200         | —  | 200                 | 239               | 50                                 | 215                                  | 237                                      | ATV6A0C20Q6 |
| HD                                           | 160         | —  | 163                 | 195               | 50                                 | 175                                  | 263                                      |             |
| ND                                           | 250         | —  | 255                 | 305               | 50                                 | 275                                  | 303                                      | ATV6A0C25Q6 |
| HD                                           | 200         | —  | 211                 | 252               | 50                                 | 215                                  | 323                                      |             |
| ND                                           | 315         | —  | 316                 | 378               | 50                                 | 340                                  | 374                                      | ATV6A0C31Q6 |
| HD                                           | 250         | —  | 255                 | 305               | 50                                 | 275                                  | 413                                      |             |
| ND                                           | 400         | —  | 394                 | 471               | 50                                 | 425                                  | 468                                      | ATV6A0C40Q6 |
| HD                                           | 315         | —  | 316                 | 378               | 50                                 | 340                                  | 510                                      |             |
| ND                                           | 500         | —  | 495                 | 592               | 50                                 | 520                                  | 572                                      | ATV6A0C50Q6 |
| HD                                           | 400         | —  | 401                 | 479               | 50                                 | 425                                  | 638                                      |             |
| ND                                           | 630         | —  | 615                 | 735               | 50                                 | 650                                  | 715                                      | ATV6A0C63Q6 |
| HD                                           | 500         | —  | 495                 | 592               | 50                                 | 520                                  | 780                                      |             |
| ND                                           | 800         | —  | 776                 | 927               | 50                                 | 830                                  | 913                                      | ATV6A0C80Q6 |
| HD                                           | 630         | —  | 619                 | 740               | 50                                 | 650                                  | 975                                      |             |
| ND                                           | 1000        | —  | 969                 | 1158              | 50                                 | 1030                                 | 1133                                     | ATV6A0M10Q6 |
| HD                                           | 800         | —  | 779                 | 931               | 50                                 | 830                                  | 1245                                     |             |
| ND                                           | 1200        | —  | 1161                | 1388              | 50                                 | 1230                                 | 1353                                     | ATV6A0M12Q6 |
| HD                                           | 1000        | —  | 971                 | 1160              | 50                                 | 1030                                 | 1545                                     |             |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual PHA2451702).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

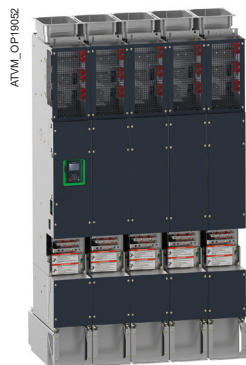
**Note:** Altivar Process Modular Standard drives can be designed as Reduced Height versions for integration in 1.6 m/5.25 ft cabinets.

## Variable speed drives

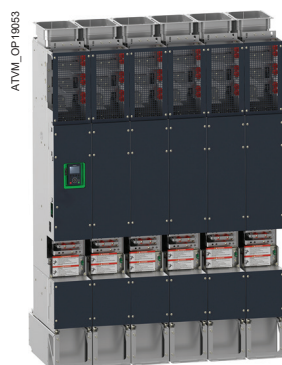
Altivar Process Modular

Drives for cabinet integration

Three-phase supply voltage: 690 V 50/60 Hz



ATV9A0M10Q6



ATV9A0M12Q6

## 690 V (-15...10%) IP00 Standard Modular drives (continued) (1)

| Motor                                              |             |    | Line supply      |                |                              | Altivar Process                |                                 |             |
|----------------------------------------------------|-------------|----|------------------|----------------|------------------------------|--------------------------------|---------------------------------|-------------|
| Power indicated on rating plate (2)                |             |    | Line current (3) | Apparent power | Maximum prospective line Isc | Maximum continuous current (2) | Max. transient current for 60 s | Reference   |
|                                                    |             |    | 690 V            | 690 V          |                              |                                |                                 |             |
| ND:                                                | Normal duty |    |                  |                |                              |                                |                                 |             |
| HD:                                                | Heavy duty  |    |                  |                |                              |                                |                                 |             |
|                                                    | kW          | HP | A                | kVA            | kA                           | A                              | A                               |             |
| Altivar Process Modular for demanding applications |             |    |                  |                |                              |                                |                                 |             |
| THDi ≤ 48% at 100% load in Normal duty             |             |    |                  |                |                              |                                |                                 |             |
| ND                                                 | 110         | —  | 118              | 141            | 50                           | 125                            | 150                             | ATV9A0C11Q6 |
| HD                                                 | 90          | —  | 100              | 120            | 50                           | 105                            | 158                             |             |
| ND                                                 | 132         | —  | 138              | 165            | 50                           | 145                            | 174                             | ATV9A0C13Q6 |
| HD                                                 | 110         | —  | 118              | 141            | 50                           | 125                            | 188                             |             |
| ND                                                 | 160         | —  | 163              | 195            | 50                           | 175                            | 210                             | ATV9A0C16Q6 |
| HD                                                 | 132         | —  | 138              | 165            | 50                           | 145                            | 218                             |             |
| ND                                                 | 200         | —  | 200              | 239            | 50                           | 215                            | 258                             | ATV9A0C20Q6 |
| HD                                                 | 160         | —  | 163              | 195            | 50                           | 175                            | 263                             |             |
| ND                                                 | 250         | —  | 255              | 305            | 50                           | 275                            | 330                             | ATV9A0C25Q6 |
| HD                                                 | 200         | —  | 211              | 252            | 50                           | 215                            | 323                             |             |
| ND                                                 | 315         | —  | 316              | 378            | 50                           | 340                            | 408                             | ATV9A0C31Q6 |
| HD                                                 | 250         | —  | 255              | 305            | 50                           | 275                            | 413                             |             |
| ND                                                 | 400         | —  | 394              | 471            | 50                           | 425                            | 510                             | ATV9A0C40Q6 |
| HD                                                 | 315         | —  | 316              | 378            | 50                           | 340                            | 510                             |             |
| ND                                                 | 500         | —  | 495              | 592            | 50                           | 520                            | 624                             | ATV9A0C50Q6 |
| HD                                                 | 400         | —  | 401              | 479            | 50                           | 425                            | 638                             |             |
| ND                                                 | 630         | —  | 615              | 735            | 50                           | 650                            | 780                             | ATV9A0C63Q6 |
| HD                                                 | 500         | —  | 495              | 592            | 50                           | 520                            | 780                             |             |
| ND                                                 | 800         | —  | 776              | 927            | 50                           | 830                            | 996                             | ATV9A0C80Q6 |
| HD                                                 | 630         | —  | 619              | 740            | 50                           | 650                            | 975                             |             |
| ND                                                 | 1000        | —  | 969              | 1158           | 50                           | 1030                           | 1236                            | ATV9A0M10Q6 |
| HD                                                 | 800         | —  | 779              | 931            | 50                           | 830                            | 1245                            |             |
| ND                                                 | 1200        | —  | 1161             | 1388           | 50                           | 1230                           | 1476                            | ATV9A0M12Q6 |
| HD                                                 | 1000        | —  | 971              | 1160           | 50                           | 1030                           | 1545                            |             |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual PHA2451702).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

**Note:** Altivar Process Modular Standard drives can be designed as Reduced Height versions for integration in 1.6 m/5.25 ft cabinets.

## Variable speed drives

Altivar Process Modular

Drives for cabinet integration

Three-phase supply voltage: 400 V 50/60 Hz



ATV6B0C11Q4



ATV6B0C20Q4

| 400 V (-15...10%) IP00 Modular Low Harmonic drives <sup>(1)</sup> |             |   |                             |                |                              |                                           |                                 |             |
|-------------------------------------------------------------------|-------------|---|-----------------------------|----------------|------------------------------|-------------------------------------------|---------------------------------|-------------|
| Motor                                                             |             |   | Line supply                 |                |                              | Altivar Process                           |                                 |             |
| Power indicated on rating plate <sup>(2)</sup>                    |             |   | Line current <sup>(3)</sup> | Apparent power | Maximum prospective line Isc | Maximum continuous current <sup>(2)</sup> | Max. transient current for 60 s | Reference   |
|                                                                   |             |   | 400 V                       | 400 V          |                              |                                           |                                 |             |
| ND:                                                               | Normal duty |   |                             |                |                              |                                           |                                 |             |
| HD:                                                               | Heavy duty  |   |                             |                |                              |                                           |                                 |             |
| kW                                                                | HP          |   | A                           | kVA            | kA                           | A                                         | A                               |             |
| Altivar Process Modular for fluid management                      |             |   |                             |                |                              |                                           |                                 |             |
| THDi ≤ 5% at 100% load in Normal duty                             |             |   |                             |                |                              |                                           |                                 |             |
| ND                                                                | 110         | – | 175                         | 121            | 50                           | 211                                       | 232                             | ATV6B0C11Q4 |
| HD                                                                | 90          | – | 144                         | 100            | 50                           | 173                                       | 260                             |             |
| ND                                                                | 132         | – | 208                         | 144            | 50                           | 250                                       | 275                             | ATV6B0C13Q4 |
| HD                                                                | 110         | – | 174                         | 121            | 50                           | 211                                       | 317                             |             |
| ND                                                                | 160         | – | 252                         | 174            | 50                           | 302                                       | 332                             | ATV6B0C16Q4 |
| HD                                                                | 132         | – | 208                         | 144            | 50                           | 250                                       | 375                             |             |
| ND                                                                | 200         | – | 313                         | 217            | 50                           | 370                                       | 407                             | ATV6B0C20Q4 |
| HD                                                                | 160         | – | 252                         | 174            | 50                           | 302                                       | 453                             |             |
| ND                                                                | 250         | – | 389                         | 270            | 50                           | 477                                       | 525                             | ATV6B0C25Q4 |
| HD                                                                | 200         | – | 313                         | 217            | 50                           | 370                                       | 555                             |             |
| ND                                                                | 315         | – | 491                         | 340            | 50                           | 590                                       | 649                             | ATV6B0C31Q4 |
| HD                                                                | 250         | – | 389                         | 270            | 50                           | 477                                       | 716                             |             |
| ND                                                                | 355         | – | 553                         | 383            | 50                           | 660                                       | 726                             | ATV6B0C35Q4 |
| HD                                                                | 280         | – | 436                         | 302            | 50                           | 520                                       | 780                             |             |
| ND                                                                | 400         | – | 620                         | 429            | 50                           | 730                                       | 803                             | ATV6B0C40Q4 |
| HD                                                                | 315         | – | 491                         | 340            | 50                           | 590                                       | 885                             |             |
| ND                                                                | 450         | – | 697                         | 483            | 50                           | 830                                       | 913                             | ATV6B0C45Q4 |
| HD                                                                | 355         | – | 553                         | 383            | 50                           | 660                                       | 990                             |             |
| ND                                                                | 500         | – | 775                         | 537            | 50                           | 900                                       | 990                             | ATV6B0C50Q4 |
| HD                                                                | 400         | – | 620                         | 429            | 50                           | 730                                       | 1095                            |             |
| ND                                                                | 560         | – | 868                         | 601            | 50                           | 1020                                      | 1122                            | ATV6B0C56Q4 |
| HD                                                                | 450         | – | 697                         | 483            | 50                           | 830                                       | 1245                            |             |
| ND                                                                | 630         | – | 971                         | 673            | 50                           | 1140                                      | 1254                            | ATV6B0C63Q4 |
| HD                                                                | 500         | – | 775                         | 537            | 50                           | 900                                       | 1350                            |             |
| ND                                                                | 710         | – | 1094                        | 758            | 50                           | 1260                                      | 1386                            | ATV6B0C71Q4 |
| HD                                                                | 560         | – | 868                         | 601            | 50                           | 1020                                      | 1530                            |             |
| ND                                                                | 800         | – | 1227                        | 850            | 50                           | 1420                                      | 1562                            | ATV6B0C80Q4 |
| HD                                                                | 630         | – | 971                         | 673            | 50                           | 1140                                      | 1710                            |             |
| ND                                                                | 1000        | – | 1550                        | 1074           | 50                           | 1770                                      | 1947                            | ATV6B0M10Q4 |
| HD                                                                | 800         | – | 1240                        | 859            | 50                           | 1420                                      | 2130                            |             |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual PHA2452602).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

## Variable speed drives

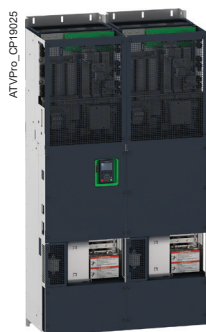
Altivar Process Modular

Drives for cabinet integration

Three-phase supply voltage: 400 V 50/60 Hz



ATV9B0C13Q4



ATV9B0C25Q4

| 400 V (-15...10%) IP00 Modular Low Harmonic/Regen drives <sup>(1)</sup> |      |   |                             |                |                              |                                           |                                 |             |
|-------------------------------------------------------------------------|------|---|-----------------------------|----------------|------------------------------|-------------------------------------------|---------------------------------|-------------|
| Motor                                                                   |      |   | Line supply                 |                |                              | Altivar Process                           |                                 |             |
| Power indicated on rating plate <sup>(2)</sup>                          |      |   | Line current <sup>(3)</sup> | Apparent power | Maximum prospective line Isc | Maximum continuous current <sup>(2)</sup> | Max. transient current for 60 s | Reference   |
|                                                                         |      |   | 400 V                       | 400 V          |                              |                                           |                                 |             |
| ND: Normal duty                                                         |      |   |                             |                |                              |                                           |                                 |             |
| HD: Heavy duty                                                          |      |   |                             |                |                              |                                           |                                 |             |
| kW                                                                      | HP   |   | A                           | kVA            | kA                           | A                                         | A                               |             |
| Altivar Process Modular for demanding applications                      |      |   |                             |                |                              |                                           |                                 |             |
| THDi ≤ 5% at 100% load in Normal duty                                   |      |   |                             |                |                              |                                           |                                 |             |
| ND                                                                      | 110  | — | 175                         | 121            | 50                           | 211                                       | 253                             | ATV9B0C11Q4 |
| HD                                                                      | 90   | — | 144                         | 100            | 50                           | 173                                       | 260                             |             |
| ND                                                                      | 132  | — | 208                         | 144            | 50                           | 250                                       | 300                             | ATV9B0C13Q4 |
| HD                                                                      | 110  | — | 174                         | 121            | 50                           | 211                                       | 317                             |             |
| ND                                                                      | 160  | — | 252                         | 174            | 50                           | 302                                       | 362                             | ATV9B0C16Q4 |
| HD                                                                      | 132  | — | 208                         | 144            | 50                           | 250                                       | 375                             |             |
| ND                                                                      | 200  | — | 313                         | 217            | 50                           | 370                                       | 444                             | ATV9B0C20Q4 |
| HD                                                                      | 160  | — | 252                         | 174            | 50                           | 302                                       | 453                             |             |
| ND                                                                      | 250  | — | 389                         | 270            | 50                           | 477                                       | 572                             | ATV9B0C25Q4 |
| HD                                                                      | 200  | — | 313                         | 217            | 50                           | 370                                       | 555                             |             |
| ND                                                                      | 315  | — | 491                         | 340            | 50                           | 590                                       | 708                             | ATV9B0C31Q4 |
| HD                                                                      | 250  | — | 389                         | 270            | 50                           | 477                                       | 716                             |             |
| ND                                                                      | 355  | — | 553                         | 383            | 50                           | 660                                       | 792                             | ATV9B0C35Q4 |
| HD                                                                      | 280  | — | 436                         | 302            | 50                           | 520                                       | 780                             |             |
| ND                                                                      | 400  | — | 620                         | 429            | 50                           | 730                                       | 876                             | ATV9B0C40Q4 |
| HD                                                                      | 315  | — | 491                         | 340            | 50                           | 590                                       | 885                             |             |
| ND                                                                      | 450  | — | 697                         | 483            | 50                           | 830                                       | 996                             | ATV9B0C45Q4 |
| HD                                                                      | 355  | — | 553                         | 383            | 50                           | 660                                       | 990                             |             |
| ND                                                                      | 500  | — | 775                         | 537            | 50                           | 900                                       | 1080                            | ATV9B0C50Q4 |
| HD                                                                      | 400  | — | 620                         | 429            | 50                           | 730                                       | 1095                            |             |
| ND                                                                      | 560  | — | 868                         | 601            | 50                           | 1020                                      | 1224                            | ATV9B0C56Q4 |
| HD                                                                      | 450  | — | 697                         | 483            | 50                           | 830                                       | 1245                            |             |
| ND                                                                      | 630  | — | 971                         | 673            | 50                           | 1140                                      | 1368                            | ATV9B0C63Q4 |
| HD                                                                      | 500  | — | 775                         | 537            | 50                           | 900                                       | 1350                            |             |
| ND                                                                      | 710  | — | 1094                        | 758            | 50                           | 1260                                      | 1512                            | ATV9B0C71Q4 |
| HD                                                                      | 560  | — | 868                         | 601            | 50                           | 1020                                      | 1530                            |             |
| ND                                                                      | 800  | — | 1227                        | 850            | 50                           | 1420                                      | 1704                            | ATV9B0C80Q4 |
| HD                                                                      | 630  | — | 971                         | 673            | 50                           | 1140                                      | 1710                            |             |
| ND                                                                      | 1000 | — | 1550                        | 1074           | 50                           | 1770                                      | 1947                            | ATV9B0M10Q4 |
| HD                                                                      | 800  | — | 1240                        | 859            | 50                           | 1420                                      | 2130                            |             |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual PHA2452602).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

## Variable speed drives

Altivar Process Modular

Drives for cabinet integration

Three-phase supply voltage: 440 V 50/60 Hz

ATVPro\_CP19026



ATV6B0C31R4

ATVPro\_CP19027



ATV6B0C56R4

440 V (-15...10%) IP00 Modular Low Harmonic drives <sup>(1)</sup>

| Motor                                        |             | Line supply            |                   |                                      | Altivar Process                      |                                          |           |
|----------------------------------------------|-------------|------------------------|-------------------|--------------------------------------|--------------------------------------|------------------------------------------|-----------|
| Power indicated on rating plate<br>(2)       |             | Line<br>current<br>(3) | Apparent<br>power | Maximum<br>prospec-<br>tive line Isc | Maximum<br>continuous<br>current (2) | Max.<br>transient<br>current for<br>60 s | Reference |
|                                              |             | 440 V                  | 440 V             |                                      |                                      |                                          |           |
| ND:                                          | Normal duty |                        |                   |                                      |                                      |                                          |           |
| HD:                                          | Heavy duty  |                        |                   |                                      |                                      |                                          |           |
|                                              | kW          | HP                     | A                 | kVA                                  | kA                                   | A                                        | A         |
| Altivar Process Modular for fluid management |             |                        |                   |                                      |                                      |                                          |           |
| THDi ≤ 5% at 100% load in Normal duty        |             |                        |                   |                                      |                                      |                                          |           |
| ND                                           | 110         | —                      | 159               | 121                                  | 50                                   | 211                                      | 232       |
| HD                                           | 90          | —                      | 132               | 100                                  | 50                                   | 173                                      | 260       |
| ND                                           | 132         | —                      | 190               | 145                                  | 50                                   | 250                                      | 275       |
| HD                                           | 110         | —                      | 159               | 121                                  | 50                                   | 211                                      | 317       |
| ND                                           | 160         | —                      | 229               | 174                                  | 50                                   | 302                                      | 332       |
| HD                                           | 132         | —                      | 190               | 145                                  | 50                                   | 250                                      | 375       |
| ND                                           | 200         | —                      | 285               | 217                                  | 50                                   | 370                                      | 407       |
| HD                                           | 160         | —                      | 229               | 174                                  | 50                                   | 302                                      | 453       |
| ND                                           | 250         | —                      | 354               | 270                                  | 50                                   | 477                                      | 525       |
| HD                                           | 200         | —                      | 285               | 217                                  | 50                                   | 370                                      | 555       |
| ND                                           | 315         | —                      | 446               | 340                                  | 50                                   | 590                                      | 649       |
| HD                                           | 250         | —                      | 354               | 270                                  | 50                                   | 477                                      | 716       |
| ND                                           | 355         | —                      | 503               | 383                                  | 50                                   | 660                                      | 726       |
| HD                                           | 280         | —                      | 396               | 302                                  | 50                                   | 520                                      | 780       |
| ND                                           | 400         | —                      | 563               | 429                                  | 50                                   | 730                                      | 803       |
| HD                                           | 315         | —                      | 446               | 340                                  | 50                                   | 590                                      | 885       |
| ND                                           | 450         | —                      | 634               | 483                                  | 50                                   | 830                                      | 913       |
| HD                                           | 355         | —                      | 503               | 383                                  | 50                                   | 660                                      | 990       |
| ND                                           | 500         | —                      | 704               | 537                                  | 50                                   | 900                                      | 990       |
| HD                                           | 400         | —                      | 563               | 429                                  | 50                                   | 730                                      | 1095      |
| ND                                           | 560         | —                      | 789               | 601                                  | 50                                   | 1020                                     | 1122      |
| HD                                           | 450         | —                      | 634               | 483                                  | 50                                   | 830                                      | 1245      |
| ND                                           | 630         | —                      | 883               | 673                                  | 50                                   | 1140                                     | 1254      |
| HD                                           | 500         | —                      | 704               | 537                                  | 50                                   | 900                                      | 1350      |
| ND                                           | 710         | —                      | 995               | 758                                  | 50                                   | 1260                                     | 1386      |
| HD                                           | 560         | —                      | 789               | 601                                  | 50                                   | 1020                                     | 1530      |
| ND                                           | 800         | —                      | 1115              | 850                                  | 50                                   | 1420                                     | 1562      |
| HD                                           | 630         | —                      | 883               | 673                                  | 50                                   | 1140                                     | 1710      |
| ND                                           | 1000        | —                      | 1408              | 1073                                 | 50                                   | 1770                                     | 1947      |
| HD                                           | 800         | —                      | 1126              | 858                                  | 50                                   | 1420                                     | 2130      |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual PHA2452602).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

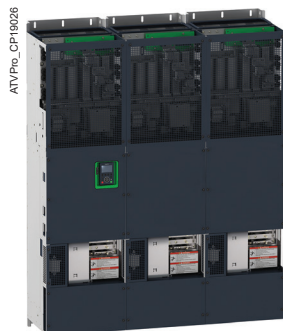


## Variable speed drives

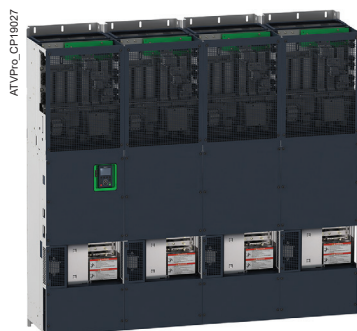
Altivar Process Modular

Drives for cabinet integration

Three-phase supply voltage: 440 V 50/60 Hz



ATV9B0C40R4



ATV9B0C63R4

| 440 V IP00 (-15...10%) Modular Low Harmonic/Regen drives <sup>(1)</sup> |             |                             |                |                              |                                           |                                 |           |             |
|-------------------------------------------------------------------------|-------------|-----------------------------|----------------|------------------------------|-------------------------------------------|---------------------------------|-----------|-------------|
| Motor                                                                   |             | Line supply                 |                |                              | Altivar Process                           |                                 |           |             |
| Power indicated on rating plate <sup>(2)</sup>                          |             | Line current <sup>(3)</sup> | Apparent power | Maximum prospective line Isc | Maximum continuous current <sup>(2)</sup> | Max. transient current for 60 s | Reference |             |
|                                                                         |             | 440 V                       | 440 V          |                              |                                           |                                 |           |             |
| ND:                                                                     | Normal duty |                             |                |                              |                                           |                                 |           |             |
| HD:                                                                     | Heavy duty  |                             |                |                              |                                           |                                 |           |             |
|                                                                         | kW          | HP                          | A              | kVA                          | kA                                        | A                               | A         |             |
| Altivar Process Modular for demanding applications                      |             |                             |                |                              |                                           |                                 |           |             |
| THDi ≤ 5% at 100% load in Normal duty                                   |             |                             |                |                              |                                           |                                 |           |             |
| ND                                                                      | 110         | —                           | 159            | 121                          | 50                                        | 211                             | 253       | ATV9B0C11R4 |
| HD                                                                      | 90          | —                           | 132            | 100                          | 50                                        | 173                             | 260       |             |
| ND                                                                      | 132         | —                           | 190            | 145                          | 50                                        | 250                             | 300       | ATV9B0C13R4 |
| HD                                                                      | 110         | —                           | 159            | 121                          | 50                                        | 211                             | 317       |             |
| ND                                                                      | 160         | —                           | 229            | 174                          | 50                                        | 302                             | 362       | ATV9B0C16R4 |
| HD                                                                      | 132         | —                           | 190            | 145                          | 50                                        | 250                             | 375       |             |
| ND                                                                      | 200         | —                           | 285            | 217                          | 50                                        | 370                             | 444       | ATV9B0C20R4 |
| HD                                                                      | 160         | —                           | 229            | 174                          | 50                                        | 302                             | 453       |             |
| ND                                                                      | 250         | —                           | 354            | 270                          | 50                                        | 477                             | 572       | ATV9B0C25R4 |
| HD                                                                      | 200         | —                           | 285            | 217                          | 50                                        | 370                             | 555       |             |
| ND                                                                      | 315         | —                           | 446            | 340                          | 50                                        | 590                             | 708       | ATV9B0C31R4 |
| HD                                                                      | 250         | —                           | 354            | 270                          | 50                                        | 477                             | 716       |             |
| ND                                                                      | 355         | —                           | 503            | 383                          | 50                                        | 660                             | 792       | ATV9B0C35R4 |
| HD                                                                      | 280         | —                           | 396            | 302                          | 50                                        | 520                             | 780       |             |
| ND                                                                      | 400         | —                           | 563            | 429                          | 50                                        | 730                             | 876       | ATV9B0C40R4 |
| HD                                                                      | 315         | —                           | 446            | 340                          | 50                                        | 590                             | 885       |             |
| ND                                                                      | 450         | —                           | 634            | 483                          | 50                                        | 830                             | 996       | ATV9B0C45R4 |
| HD                                                                      | 355         | —                           | 503            | 383                          | 50                                        | 660                             | 990       |             |
| ND                                                                      | 500         | —                           | 704            | 537                          | 50                                        | 900                             | 1080      | ATV9B0C50R4 |
| HD                                                                      | 400         | —                           | 563            | 429                          | 50                                        | 730                             | 1095      |             |
| ND                                                                      | 560         | —                           | 789            | 601                          | 50                                        | 1020                            | 1224      | ATV9B0C56R4 |
| HD                                                                      | 450         | —                           | 634            | 483                          | 50                                        | 830                             | 1245      |             |
| ND                                                                      | 630         | —                           | 883            | 673                          | 50                                        | 1140                            | 1368      | ATV9B0C63R4 |
| HD                                                                      | 500         | —                           | 704            | 537                          | 50                                        | 900                             | 1350      |             |
| ND                                                                      | 710         | —                           | 995            | 758                          | 50                                        | 1260                            | 1512      | ATV9B0C71R4 |
| HD                                                                      | 560         | —                           | 789            | 601                          | 50                                        | 1020                            | 1530      |             |
| ND                                                                      | 800         | —                           | 1115           | 850                          | 50                                        | 1420                            | 1704      | ATV9B0C80R4 |
| HD                                                                      | 630         | —                           | 883            | 673                          | 50                                        | 1140                            | 1710      |             |
| ND                                                                      | 1000        | —                           | 1408           | 1073                         | 50                                        | 1770                            | 1947      | ATV9B0M10R4 |
| HD                                                                      | 800         | —                           | 1126           | 858                          | 50                                        | 1420                            | 2130      |             |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual PHA2452602).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

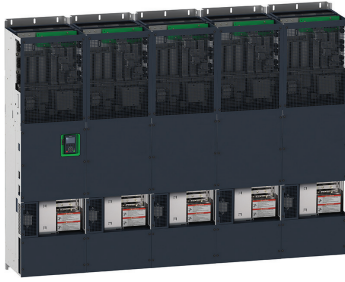
## Variable speed drives

Altivar Process Modular

Drives for cabinet integration

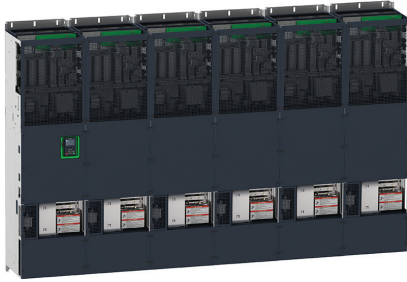
Three-phase supply voltage: 480 V 50/60 Hz

ATVPro\_CP19028



ATV6B0C45T4

ATVPro\_CP19023



ATV6B0C71T4

480 V (-10...10%) IP00 Modular Low Harmonic drives <sup>(1)</sup>

| Motor                                          |             | Line supply                 |                |                              | Altivar Process                           |                                 |             |
|------------------------------------------------|-------------|-----------------------------|----------------|------------------------------|-------------------------------------------|---------------------------------|-------------|
| Power indicated on rating plate <sup>(2)</sup> |             | Line current <sup>(3)</sup> | Apparent power | Maximum prospective line Isc | Maximum continuous current <sup>(2)</sup> | Max. transient current for 60 s | Reference   |
|                                                |             | 480 V                       | 480 V          |                              |                                           |                                 |             |
| ND:                                            | Normal duty |                             |                |                              |                                           |                                 |             |
| HD:                                            | Heavy duty  |                             |                |                              |                                           |                                 |             |
|                                                | kW HP       | A                           | kVA            | kA                           | A                                         | A                               |             |
| Altivar Process Modular for fluid management   |             |                             |                |                              |                                           |                                 |             |
| THDi ≤ 5% at 100% load in Normal duty          |             |                             |                |                              |                                           |                                 |             |
| ND                                             | — 150       | 148                         | 123            | 50                           | 211                                       | 232                             | ATV6B0C11T4 |
| HD                                             | — 125       | 125                         | 104            | 50                           | 173                                       | 260                             |             |
| ND                                             | — 200       | 197                         | 164            | 50                           | 250                                       | 275                             | ATV6B0C13T4 |
| HD                                             | — 150       | 148                         | 123            | 50                           | 211                                       | 317                             |             |
| ND                                             | — 250       | 245                         | 203            | 50                           | 302                                       | 332                             | ATV6B0C16T4 |
| HD                                             | — 200       | 197                         | 164            | 50                           | 250                                       | 375                             |             |
| ND                                             | — 300       | 292                         | 243            | 50                           | 370                                       | 407                             | ATV6B0C20T4 |
| HD                                             | — 250       | 245                         | 203            | 50                           | 302                                       | 453                             |             |
| ND                                             | — 400       | 387                         | 322            | 50                           | 477                                       | 525                             | ATV6B0C25T4 |
| HD                                             | — 300       | 292                         | 243            | 50                           | 370                                       | 555                             |             |
| ND                                             | — 500       | 484                         | 402            | 50                           | 590                                       | 649                             | ATV6B0C31T4 |
| HD                                             | — 400       | 387                         | 322            | 50                           | 477                                       | 716                             |             |
| ND                                             | — 550       | 533                         | 443            | 50                           | 660                                       | 726                             | ATV6B0C35T4 |
| HD                                             | — 450       | 436                         | 362            | 50                           | 520                                       | 780                             |             |
| ND                                             | — 600       | 578                         | 480            | 50                           | 730                                       | 803                             | ATV6B0C40T4 |
| HD                                             | — 500       | 484                         | 402            | 50                           | 590                                       | 885                             |             |
| ND                                             | — 650       | 626                         | 520            | 50                           | 830                                       | 913                             | ATV6B0C45T4 |
| HD                                             | — 550       | 533                         | 443            | 50                           | 660                                       | 990                             |             |
| ND                                             | — 700       | 674                         | 561            | 50                           | 900                                       | 990                             | ATV6B0C50T4 |
| HD                                             | — 600       | 578                         | 480            | 50                           | 730                                       | 1095                            |             |
| ND                                             | — 800       | 771                         | 641            | 50                           | 1020                                      | 1122                            | ATV6B0C56T4 |
| HD                                             | — 650       | 626                         | 520            | 50                           | 830                                       | 1245                            |             |
| ND                                             | — 900       | 862                         | 717            | 50                           | 1140                                      | 1254                            | ATV6B0C63T4 |
| HD                                             | — 700       | 674                         | 561            | 50                           | 900                                       | 1350                            |             |
| ND                                             | — 1000      | 958                         | 797            | 50                           | 1260                                      | 1386                            | ATV6B0C71T4 |
| HD                                             | — 800       | 771                         | 641            | 50                           | 1020                                      | 1530                            |             |
| ND                                             | — 1100      | 1049                        | 872            | 50                           | 1420                                      | 1562                            | ATV6B0C80T4 |
| HD                                             | — 900       | 862                         | 717            | 50                           | 1140                                      | 1710                            |             |
| ND                                             | — 1400      | 1348                        | 1121           | 50                           | 1770                                      | 1947                            | ATV6B0M10T4 |
| HD                                             | — 1100      | 1156                        | 961            | 50                           | 1420                                      | 2130                            |             |

<sup>(1)</sup> Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.<sup>(2)</sup> These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual PHA2452602).

<sup>(3)</sup> Typical value for the indicated motor power and for the maximum prospective line Isc.

## Variable speed drives

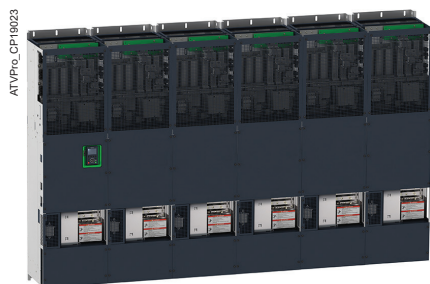
Altivar Process Modular

Drives for cabinet integration

Three-phase supply voltage: 480 V 50/60 Hz



ATV9B0C50T4



ATV9B0C80T4

480 V (-10...10%) IP00 Modular Low Harmonic/Regen drives <sup>(1)</sup>

| Motor                                              |             |      | Line supply      |                |                              | Altivar Process                |                                 |             |
|----------------------------------------------------|-------------|------|------------------|----------------|------------------------------|--------------------------------|---------------------------------|-------------|
| Power indicated on rating plate (2)                |             |      | Line current (3) | Apparent power | Maximum prospective line Isc | Maximum continuous current (2) | Max. transient current for 60 s | Reference   |
|                                                    |             |      | 480 V            | 480 V          |                              |                                |                                 |             |
| ND:                                                | Normal duty |      |                  |                |                              |                                |                                 |             |
| HD:                                                | Heavy duty  |      |                  |                |                              |                                |                                 |             |
|                                                    | kW          | HP   | A                | kVA            | kA                           | A                              | A                               |             |
| Altivar Process Modular for demanding applications |             |      |                  |                |                              |                                |                                 |             |
| THDi ≤ 5% at 100% load in Normal duty              |             |      |                  |                |                              |                                |                                 |             |
| ND                                                 | —           | 150  | 148              | 123            | 50                           | 211                            | 253                             | ATV9B0C11T4 |
| HD                                                 | —           | 125  | 125              | 104            | 50                           | 173                            | 260                             |             |
| ND                                                 | —           | 200  | 197              | 164            | 50                           | 250                            | 300                             | ATV9B0C13T4 |
| HD                                                 | —           | 150  | 148              | 123            | 50                           | 211                            | 317                             |             |
| ND                                                 | —           | 250  | 245              | 203            | 50                           | 302                            | 362                             | ATV9B0C16T4 |
| HD                                                 | —           | 200  | 197              | 164            | 50                           | 250                            | 375                             |             |
| ND                                                 | —           | 300  | 292              | 243            | 50                           | 370                            | 444                             | ATV9B0C20T4 |
| HD                                                 | —           | 250  | 245              | 203            | 50                           | 302                            | 453                             |             |
| ND                                                 | —           | 400  | 387              | 322            | 50                           | 477                            | 572                             | ATV9B0C25T4 |
| HD                                                 | —           | 300  | 292              | 243            | 50                           | 370                            | 555                             |             |
| ND                                                 | —           | 500  | 484              | 402            | 50                           | 590                            | 708                             | ATV9B0C31T4 |
| HD                                                 | —           | 400  | 387              | 322            | 50                           | 477                            | 716                             |             |
| ND                                                 | —           | 550  | 533              | 443            | 50                           | 660                            | 792                             | ATV9B0C35T4 |
| HD                                                 | —           | 450  | 436              | 362            | 50                           | 520                            | 780                             |             |
| ND                                                 | —           | 600  | 578              | 480            | 50                           | 730                            | 876                             | ATV9B0C40T4 |
| HD                                                 | —           | 500  | 484              | 402            | 50                           | 590                            | 885                             |             |
| ND                                                 | —           | 650  | 626              | 520            | 50                           | 830                            | 996                             | ATV9B0C45T4 |
| HD                                                 | —           | 550  | 533              | 443            | 50                           | 660                            | 990                             |             |
| ND                                                 | —           | 700  | 674              | 561            | 50                           | 900                            | 1080                            | ATV9B0C50T4 |
| HD                                                 | —           | 600  | 578              | 480            | 50                           | 730                            | 1095                            |             |
| ND                                                 | —           | 800  | 771              | 641            | 50                           | 1020                           | 1224                            | ATV9B0C56T4 |
| HD                                                 | —           | 650  | 626              | 520            | 50                           | 830                            | 1245                            |             |
| ND                                                 | —           | 900  | 862              | 717            | 50                           | 1140                           | 1368                            | ATV9B0C63T4 |
| HD                                                 | —           | 700  | 674              | 561            | 50                           | 900                            | 1350                            |             |
| ND                                                 | —           | 1000 | 958              | 797            | 50                           | 1260                           | 1512                            | ATV9B0C71T4 |
| HD                                                 | —           | 800  | 771              | 641            | 50                           | 1020                           | 1530                            |             |
| ND                                                 | —           | 1100 | 1049             | 872            | 50                           | 1420                           | 1704                            | ATV9B0C80T4 |
| HD                                                 | —           | 900  | 862              | 717            | 50                           | 1140                           | 1710                            |             |
| ND                                                 | —           | 1400 | 1348             | 1121           | 50                           | 1770                           | 1947                            | ATV9B0M10T4 |
| HD                                                 | —           | 1100 | 1156             | 961            | 50                           | 1420                           | 2130                            |             |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual PHA2452602).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

## Variable speed drives

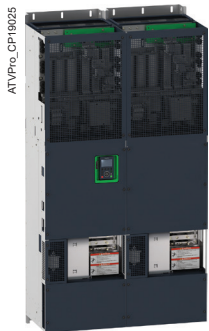
Altivar Process Modular

Drives for cabinet integration

Three-phase supply voltage: 500 V 50/60 Hz



ATV6B0C11N6



ATV6B0C25N6

| 500 V (-10...15%) IP00 Modular Low Harmonic drives <sup>(1)</sup> |     |   |                             |                |                              |                                           |                                 |             |
|-------------------------------------------------------------------|-----|---|-----------------------------|----------------|------------------------------|-------------------------------------------|---------------------------------|-------------|
| Motor                                                             |     |   | Line supply                 |                |                              | Altivar Process                           |                                 |             |
| Power indicated on rating plate <sup>(2)</sup>                    |     |   | Line current <sup>(3)</sup> | Apparent power | Maximum prospective line Isc | Maximum continuous current <sup>(2)</sup> | Max. transient current for 60 s | Reference   |
|                                                                   |     |   | 500 V                       | 500 V          |                              |                                           |                                 |             |
| ND: Normal duty                                                   |     |   |                             |                |                              |                                           |                                 |             |
| HD: Heavy duty                                                    |     |   |                             |                |                              |                                           |                                 |             |
| kW                                                                | HP  |   | A                           | kVA            | kA                           | A                                         | A                               |             |
| Altivar Process Modular for fluid management                      |     |   |                             |                |                              |                                           |                                 |             |
| THDi ≤ 5% at 100% load in Normal duty                             |     |   |                             |                |                              |                                           |                                 |             |
| ND                                                                | 75  | – | 98                          | 85             | 50                           | 125                                       | 138                             | ATV6B0C11N6 |
| HD                                                                | 55  | – | 72                          | 62             | 50                           | 105                                       | 158                             |             |
| ND                                                                | 90  | – | 117                         | 101            | 50                           | 145                                       | 160                             | ATV6B0C13N6 |
| HD                                                                | 75  | – | 98                          | 85             | 50                           | 125                                       | 188                             |             |
| ND                                                                | 110 | – | 141                         | 122            | 50                           | 175                                       | 193                             | ATV6B0C16N6 |
| HD                                                                | 90  | – | 117                         | 101            | 50                           | 145                                       | 218                             |             |
| ND                                                                | 132 | – | 169                         | 146            | 50                           | 215                                       | 237                             | ATV6B0C20N6 |
| HD                                                                | 110 | – | 141                         | 122            | 50                           | 175                                       | 263                             |             |
| ND                                                                | 160 | – | 204                         | 176            | 50                           | 275                                       | 303                             | ATV6B0C25N6 |
| HD                                                                | 132 | – | 169                         | 146            | 50                           | 215                                       | 323                             |             |
| ND                                                                | 220 | – | 278                         | 241            | 50                           | 340                                       | 374                             | ATV6B0C31N6 |
| HD                                                                | 160 | – | 204                         | 176            | 50                           | 275                                       | 413                             |             |
| ND                                                                | 280 | – | 352                         | 305            | 50                           | 425                                       | 468                             | ATV6B0C40N6 |
| HD                                                                | 220 | – | 278                         | 241            | 50                           | 340                                       | 510                             |             |
| ND                                                                | 355 | – | 446                         | 386            | 50                           | 520                                       | 572                             | ATV6B0C50N6 |
| HD                                                                | 280 | – | 352                         | 305            | 50                           | 425                                       | 638                             |             |
| ND                                                                | 450 | – | 562                         | 487            | 50                           | 650                                       | 715                             | ATV6B0C63N6 |
| HD                                                                | 355 | – | 446                         | 386            | 50                           | 520                                       | 780                             |             |
| ND                                                                | 560 | – | 701                         | 607            | 50                           | 830                                       | 913                             | ATV6B0C80N6 |
| HD                                                                | 450 | – | 564                         | 488            | 50                           | 650                                       | 975                             |             |
| ND                                                                | 710 | – | 884                         | 766            | 50                           | 1030                                      | 1133                            | ATV6B0M10N6 |
| HD                                                                | 560 | – | 701                         | 607            | 50                           | 830                                       | 1245                            |             |
| ND                                                                | 800 | – | 991                         | 859            | 50                           | 1230                                      | 1353                            | ATV6B0M12N6 |
| HD                                                                | 710 | – | 884                         | 766            | 50                           | 1030                                      | 1545                            |             |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual PHA2452602).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

## Variable speed drives

Altivar Process Modular

Drives for cabinet integration

Three-phase supply voltage: 500 V 50/60 Hz



ATV9B0C11N6



ATV9B0C25N6

| 500 V (-10...15%) IP00 Modular Low Harmonic/Regen drives <sup>(1)</sup> |     |   |                             |                |                              |                                           |                                 |             |
|-------------------------------------------------------------------------|-----|---|-----------------------------|----------------|------------------------------|-------------------------------------------|---------------------------------|-------------|
| Motor                                                                   |     |   | Line supply                 |                |                              | Altivar Process                           |                                 |             |
| Power indicated on rating plate <sup>(2)</sup>                          |     |   | Line current <sup>(3)</sup> | Apparent power | Maximum prospective line Isc | Maximum continuous current <sup>(2)</sup> | Max. transient current for 60 s | Reference   |
|                                                                         |     |   | 500 V                       | 500 V          |                              |                                           |                                 |             |
| ND: Normal duty                                                         |     |   |                             |                |                              |                                           |                                 |             |
| HD: Heavy duty                                                          |     |   |                             |                |                              |                                           |                                 |             |
| kW                                                                      | HP  |   | A                           | kVA            | kA                           | A                                         | A                               |             |
| Altivar Process Modular for demanding applications                      |     |   |                             |                |                              |                                           |                                 |             |
| THDi ≤ 5% at 100% load in Normal duty                                   |     |   |                             |                |                              |                                           |                                 |             |
| ND                                                                      | 75  | — | 98                          | 85             | 50                           | 125                                       | 150                             | ATV9B0C11N6 |
| HD                                                                      | 55  | — | 72                          | 62             | 50                           | 105                                       | 158                             |             |
| ND                                                                      | 90  | — | 117                         | 101            | 50                           | 145                                       | 174                             | ATV9B0C13N6 |
| HD                                                                      | 75  | — | 98                          | 85             | 50                           | 125                                       | 188                             |             |
| ND                                                                      | 110 | — | 141                         | 122            | 50                           | 175                                       | 210                             | ATV9B0C16N6 |
| HD                                                                      | 90  | — | 117                         | 101            | 50                           | 145                                       | 218                             |             |
| ND                                                                      | 132 | — | 169                         | 146            | 50                           | 215                                       | 258                             | ATV9B0C20N6 |
| HD                                                                      | 110 | — | 141                         | 122            | 50                           | 175                                       | 263                             |             |
| ND                                                                      | 160 | — | 204                         | 176            | 50                           | 275                                       | 330                             | ATV9B0C25N6 |
| HD                                                                      | 132 | — | 169                         | 146            | 50                           | 215                                       | 323                             |             |
| ND                                                                      | 220 | — | 278                         | 241            | 50                           | 340                                       | 408                             | ATV9B0C31N6 |
| HD                                                                      | 160 | — | 204                         | 176            | 50                           | 275                                       | 413                             |             |
| ND                                                                      | 280 | — | 352                         | 305            | 50                           | 425                                       | 510                             | ATV9B0C40N6 |
| HD                                                                      | 220 | — | 278                         | 241            | 50                           | 340                                       | 510                             |             |
| ND                                                                      | 355 | — | 446                         | 386            | 50                           | 520                                       | 624                             | ATV9B0C50N6 |
| HD                                                                      | 280 | — | 352                         | 305            | 50                           | 425                                       | 638                             |             |
| ND                                                                      | 450 | — | 562                         | 487            | 50                           | 650                                       | 780                             | ATV9B0C63N6 |
| HD                                                                      | 355 | — | 446                         | 386            | 50                           | 520                                       | 780                             |             |
| ND                                                                      | 560 | — | 701                         | 607            | 50                           | 830                                       | 996                             | ATV9B0C80N6 |
| HD                                                                      | 450 | — | 564                         | 488            | 50                           | 650                                       | 975                             |             |
| ND                                                                      | 710 | — | 884                         | 766            | 50                           | 1030                                      | 1236                            | ATV9B0M10N6 |
| HD                                                                      | 560 | — | 701                         | 607            | 50                           | 830                                       | 1245                            |             |
| ND                                                                      | 800 | — | 991                         | 859            | 50                           | 1230                                      | 1476                            | ATV9B0M12N6 |
| HD                                                                      | 710 | — | 884                         | 766            | 50                           | 1030                                      | 1545                            |             |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual PHA2452602).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.



## Variable speed drives

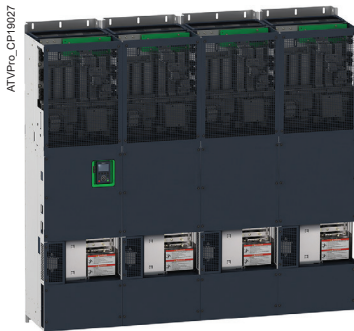
Altivar Process Modular

Drives for cabinet integration

Three-phase supply voltage: 600 V 50/60 Hz



ATV6B0C50T6



ATV6B0C80T6

600 V (-10...10%) IP00 Modular Low Harmonic drives <sup>(1)</sup>

| Motor                                          |             | Line supply                 |                |                                             | Altivar Process                           |                                 |             |
|------------------------------------------------|-------------|-----------------------------|----------------|---------------------------------------------|-------------------------------------------|---------------------------------|-------------|
| Power indicated on rating plate <sup>(2)</sup> |             | Line current <sup>(3)</sup> | Apparent power | Maximum prospective line Isc <sup>(4)</sup> | Maximum continuous current <sup>(2)</sup> | Max. transient current for 60 s | Reference   |
|                                                |             | 600 V                       | 600 V          |                                             |                                           |                                 |             |
| ND:                                            | Normal duty |                             |                |                                             |                                           |                                 |             |
| HD:                                            | Heavy duty  |                             |                |                                             |                                           |                                 |             |
|                                                | kW HP       | A                           | kVA            | kA                                          | A                                         | A                               |             |
| Altivar Process Modular for fluid management   |             |                             |                |                                             |                                           |                                 |             |
| THDi ≤ 5% at 100% load in Normal duty          |             |                             |                |                                             |                                           |                                 |             |
| ND                                             | — 125       | 102                         | 106            | 50                                          | 125                                       | 138                             | ATV6B0C11T6 |
| HD                                             | — 100       | 82                          | 86             | 50                                          | 105                                       | 158                             |             |
| ND                                             | — 150       | 121                         | 126            | 50                                          | 145                                       | 160                             | ATV6B0C13T6 |
| HD                                             | — 125       | 102                         | 106            | 50                                          | 125                                       | 188                             |             |
| ND                                             | — 175       | 142                         | 147            | 50                                          | 175                                       | 193                             | ATV6B0C16T6 |
| HD                                             | — 150       | 121                         | 126            | 50                                          | 145                                       | 218                             |             |
| ND                                             | — 200       | 161                         | 167            | 50                                          | 215                                       | 237                             | ATV6B0C20T6 |
| HD                                             | — 175       | 142                         | 147            | 50                                          | 175                                       | 263                             |             |
| ND                                             | — 250       | 199                         | 207            | 50                                          | 275                                       | 303                             | ATV6B0C25T6 |
| HD                                             | — 200       | 160                         | 166            | 50                                          | 215                                       | 323                             |             |
| ND                                             | — 350       | 277                         | 288            | 50                                          | 340                                       | 374                             | ATV6B0C31T6 |
| HD                                             | — 250       | 199                         | 207            | 50                                          | 275                                       | 413                             |             |
| ND                                             | — 450       | 355                         | 369            | 50                                          | 425                                       | 468                             | ATV6B0C40T6 |
| HD                                             | — 350       | 277                         | 288            | 50                                          | 340                                       | 510                             |             |
| ND                                             | — 550       | 434                         | 451            | 50                                          | 520                                       | 572                             | ATV6B0C50T6 |
| HD                                             | — 450       | 355                         | 369            | 50                                          | 425                                       | 638                             |             |
| ND                                             | — 650       | 511                         | 531            | 50                                          | 650                                       | 715                             | ATV6B0C63T6 |
| HD                                             | — 550       | 434                         | 451            | 50                                          | 520                                       | 780                             |             |
| ND                                             | — 800       | 628                         | 652            | 50                                          | 830                                       | 913                             | ATV6B0C80T6 |
| HD                                             | — 650       | 513                         | 533            | 50                                          | 650                                       | 975                             |             |
| ND                                             | — 1000      | 785                         | 815            | 50                                          | 1030                                      | 1133                            | ATV6B0M10T6 |
| HD                                             | — 800       | 628                         | 652            | 50                                          | 830                                       | 1245                            |             |
| ND                                             | — 1200      | 937                         | 973            | 50                                          | 1230                                      | 1353                            | ATV6B0M12T6 |
| HD                                             | — 1000      | 785                         | 815            | 50                                          | 1030                                      | 1545                            |             |

<sup>(1)</sup> Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.<sup>(2)</sup> These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual PHA2452602).

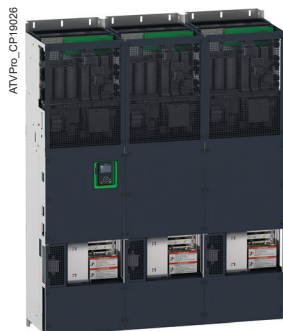
<sup>(3)</sup> Typical value for the indicated motor power and for the maximum prospective line Isc.<sup>(4)</sup> For 600V UL certified drives, a higher SCCR is possible under some conditions. Please refer to the Integration Manual PHA2452602 for more details.

## Variable speed drives

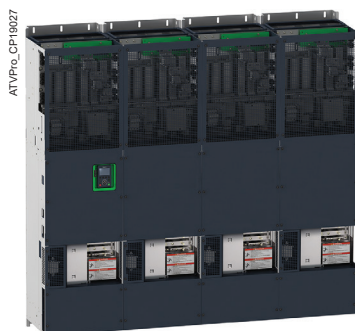
Altivar Process Modular

Drives for cabinet integration

Three-phase supply voltage: 600 V 50/60 Hz



ATV9B0C50T6



ATV9B0C80T6

600 V (-10...10%) IP00 Modular Low Harmonic/Regen drives <sup>(1)</sup>

| Motor                                          |             | Line supply                 |                |                                             | Altivar Process                           |                                 |           |
|------------------------------------------------|-------------|-----------------------------|----------------|---------------------------------------------|-------------------------------------------|---------------------------------|-----------|
| Power indicated on rating plate <sup>(2)</sup> |             | Line current <sup>(3)</sup> | Apparent power | Maximum prospective line Isc <sup>(4)</sup> | Maximum continuous current <sup>(2)</sup> | Max. transient current for 60 s | Reference |
|                                                |             | 600 V                       | 600 V          |                                             |                                           |                                 |           |
| ND:                                            | Normal duty |                             |                |                                             |                                           |                                 |           |
| HD:                                            | Heavy duty  |                             |                |                                             |                                           |                                 |           |

## Altivar Process Modular for demanding applications

THDi ≤ 5% at 100% load in Normal duty

|    | kW | HP   | A   | kVA | kA | A    | A    |             |
|----|----|------|-----|-----|----|------|------|-------------|
| ND | —  | 125  | 102 | 106 | 50 | 125  | 150  | ATV9B0C11T6 |
| HD | —  | 100  | 82  | 86  | 50 | 105  | 158  |             |
| ND | —  | 150  | 121 | 126 | 50 | 145  | 174  | ATV9B0C13T6 |
| HD | —  | 125  | 102 | 106 | 50 | 125  | 188  |             |
| ND | —  | 175  | 142 | 147 | 50 | 175  | 210  | ATV9B0C16T6 |
| HD | —  | 150  | 121 | 126 | 50 | 145  | 218  |             |
| ND | —  | 200  | 161 | 167 | 50 | 215  | 258  | ATV9B0C20T6 |
| HD | —  | 175  | 142 | 147 | 50 | 175  | 263  |             |
| ND | —  | 250  | 199 | 207 | 50 | 275  | 330  | ATV9B0C25T6 |
| HD | —  | 200  | 160 | 166 | 50 | 215  | 323  |             |
| ND | —  | 350  | 277 | 288 | 50 | 340  | 408  | ATV9B0C31T6 |
| HD | —  | 250  | 199 | 207 | 50 | 275  | 413  |             |
| ND | —  | 450  | 355 | 369 | 50 | 425  | 510  | ATV9B0C40T6 |
| HD | —  | 350  | 277 | 288 | 50 | 340  | 510  |             |
| ND | —  | 550  | 434 | 451 | 50 | 520  | 624  | ATV9B0C50T6 |
| HD | —  | 450  | 355 | 369 | 50 | 425  | 638  |             |
| ND | —  | 650  | 511 | 531 | 50 | 650  | 780  | ATV9B0C63T6 |
| HD | —  | 550  | 434 | 451 | 50 | 520  | 780  |             |
| ND | —  | 800  | 628 | 652 | 50 | 830  | 996  | ATV9B0C80T6 |
| HD | —  | 650  | 513 | 533 | 50 | 650  | 975  |             |
| ND | —  | 1000 | 785 | 815 | 50 | 1030 | 1236 | ATV9B0M10T6 |
| HD | —  | 800  | 628 | 652 | 50 | 830  | 1245 |             |
| ND | —  | 1200 | 937 | 973 | 50 | 1230 | 1476 | ATV9B0M12T6 |
| HD | —  | 1000 | 785 | 815 | 50 | 1030 | 1545 |             |

<sup>(1)</sup> Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.<sup>(2)</sup> These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual PHA2452602).

<sup>(3)</sup> Typical value for the indicated motor power and for the maximum prospective line Isc.<sup>(4)</sup> For 600V UL certified drives, a higher SCCR is possible under some conditions. Please refer to the Integration Manual PHA2452602 for more details.

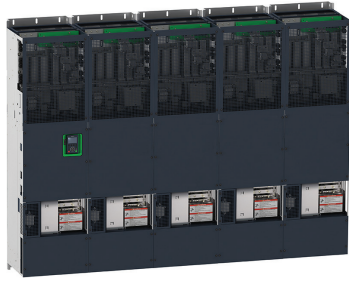
## Variable speed drives

Altivar Process Modular

Drives for cabinet integration

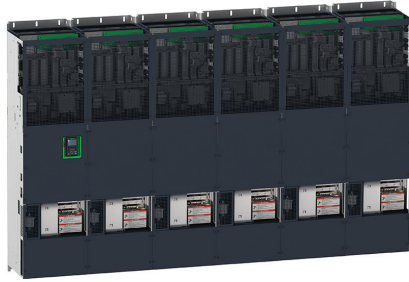
Three-phase supply voltage: 690 V 50/60 Hz

ATVPro\_CP19028



ATV6B0M10Q6

ATVPro\_CP19023



ATV6B0M12Q6

690 V (-10...10%) IP00 Modular Low Harmonic drives <sup>(1)</sup>

| Motor                                        |             |   | Line supply      |                |                              | Altivar Process                |                                 |             |
|----------------------------------------------|-------------|---|------------------|----------------|------------------------------|--------------------------------|---------------------------------|-------------|
| Power indicated on rating plate (2)          |             |   | Line current (3) | Apparent power | Maximum prospective line Isc | Maximum continuous current (2) | Max. transient current for 60 s | Reference   |
|                                              |             |   | 690 V            | 690 V          |                              |                                |                                 |             |
|                                              |             |   |                  |                |                              |                                |                                 |             |
| ND:                                          | Normal duty |   |                  |                |                              |                                |                                 |             |
| HD:                                          | Heavy duty  |   |                  |                |                              |                                |                                 |             |
| kW                                           | HP          |   | A                | kVA            | kA                           | A                              | A                               |             |
| Altivar Process Modular for fluid management |             |   |                  |                |                              |                                |                                 |             |
| THDi ≤ 5% at 100% load in Normal duty        |             |   |                  |                |                              |                                |                                 |             |
| ND                                           | 110         | – | 102              | 122            | 50                           | 125                            | 138                             | ATV6B0C11Q6 |
| HD                                           | 90          | – | 85               | 101            | 50                           | 105                            | 158                             |             |
| ND                                           | 132         | – | 122              | 146            | 50                           | 145                            | 160                             | ATV6B0C13Q6 |
| HD                                           | 110         | – | 102              | 122            | 50                           | 125                            | 188                             |             |
| ND                                           | 160         | – | 148              | 177            | 50                           | 175                            | 193                             | ATV6B0C16Q6 |
| HD                                           | 132         | – | 122              | 146            | 50                           | 145                            | 218                             |             |
| ND                                           | 200         | – | 183              | 219            | 50                           | 215                            | 237                             | ATV6B0C20Q6 |
| HD                                           | 160         | – | 148              | 177            | 50                           | 175                            | 263                             |             |
| ND                                           | 250         | – | 228              | 273            | 50                           | 275                            | 303                             | ATV6B0C25Q6 |
| HD                                           | 200         | – | 183              | 219            | 50                           | 215                            | 323                             |             |
| ND                                           | 315         | – | 287              | 343            | 50                           | 340                            | 374                             | ATV6B0C31Q6 |
| HD                                           | 250         | – | 228              | 273            | 50                           | 275                            | 413                             |             |
| ND                                           | 400         | – | 363              | 434            | 50                           | 425                            | 468                             | ATV6B0C40Q6 |
| HD                                           | 315         | – | 287              | 343            | 50                           | 340                            | 510                             |             |
| ND                                           | 500         | – | 453              | 541            | 50                           | 520                            | 572                             | ATV6B0C50Q6 |
| HD                                           | 400         | – | 362              | 433            | 50                           | 425                            | 638                             |             |
| ND                                           | 630         | – | 568              | 678            | 50                           | 650                            | 715                             | ATV6B0C63Q6 |
| HD                                           | 500         | – | 453              | 541            | 50                           | 520                            | 780                             |             |
| ND                                           | 800         | – | 718              | 859            | 50                           | 830                            | 913                             | ATV6B0C80Q6 |
| HD                                           | 630         | – | 569              | 680            | 50                           | 650                            | 975                             |             |
| ND                                           | 1000        | – | 898              | 1073           | 50                           | 1030                           | 1133                            | ATV6B0M10Q6 |
| HD                                           | 800         | – | 718              | 859            | 50                           | 830                            | 1245                            |             |
| ND                                           | 1200        | – | 1078             | 1288           | 50                           | 1230                           | 1353                            | ATV6B0M12Q6 |
| HD                                           | 1000        | – | 898              | 1073           | 50                           | 1030                           | 1545                            |             |

<sup>(1)</sup> Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.<sup>(2)</sup> These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual PHA2452602).

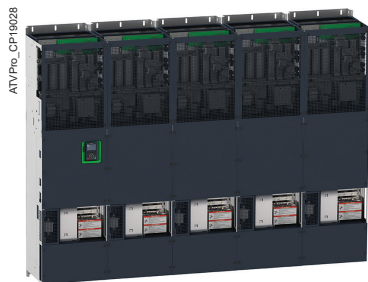
<sup>(3)</sup> Typical value for the indicated motor power and for the maximum prospective line Isc.

## Variable speed drives

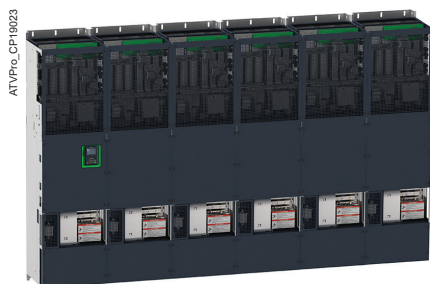
Altivar Process Modular

Drives for cabinet integration

Three-phase supply voltage: 690 V 50/60 Hz



ATV9B0M10Q6



ATV9B0M12Q6

690 V (-10...10%) IP00 Modular Low Harmonic/Regen drives <sup>(1)</sup>

| Motor                                              |             |    |      | Line supply      |                |                              | Altivar Process                |                                 |           |
|----------------------------------------------------|-------------|----|------|------------------|----------------|------------------------------|--------------------------------|---------------------------------|-----------|
| Power indicated on rating plate (2)                |             |    |      | Line current (3) | Apparent power | Maximum prospective line Isc | Maximum continuous current (2) | Max. transient current for 60 s | Reference |
|                                                    |             |    |      | 690 V            | 690 V          |                              |                                |                                 |           |
|                                                    |             |    |      |                  |                |                              |                                |                                 |           |
| ND:                                                | Normal duty |    |      |                  |                |                              |                                |                                 |           |
| HD:                                                | Heavy duty  |    |      |                  |                |                              |                                |                                 |           |
| kW                                                 |             | HP | A    | kVA              | kA             | A                            | A                              |                                 |           |
| Altivar Process Modular for demanding applications |             |    |      |                  |                |                              |                                |                                 |           |
| THDi ≤ 5% at 100% load in Normal duty              |             |    |      |                  |                |                              |                                |                                 |           |
| ND                                                 | 110         | –  | 102  | 122              | 50             | 125                          | 150                            | ATV9B0C11Q6                     |           |
| HD                                                 | 90          | –  | 85   | 101              | 50             | 105                          | 158                            |                                 |           |
| ND                                                 | 132         | –  | 122  | 146              | 50             | 145                          | 174                            | ATV9B0C13Q6                     |           |
| HD                                                 | 110         | –  | 102  | 122              | 50             | 125                          | 188                            |                                 |           |
| ND                                                 | 160         | –  | 148  | 177              | 50             | 175                          | 210                            | ATV9B0C16Q6                     |           |
| HD                                                 | 132         | –  | 122  | 146              | 50             | 145                          | 218                            |                                 |           |
| ND                                                 | 200         | –  | 183  | 219              | 50             | 215                          | 258                            | ATV9B0C20Q6                     |           |
| HD                                                 | 160         | –  | 148  | 177              | 50             | 175                          | 263                            |                                 |           |
| ND                                                 | 250         | –  | 228  | 273              | 50             | 275                          | 330                            | ATV9B0C25Q6                     |           |
| HD                                                 | 200         | –  | 183  | 219              | 50             | 215                          | 323                            |                                 |           |
| ND                                                 | 315         | –  | 287  | 343              | 50             | 340                          | 408                            | ATV9B0C31Q6                     |           |
| HD                                                 | 250         | –  | 228  | 273              | 50             | 275                          | 413                            |                                 |           |
| ND                                                 | 400         | –  | 363  | 434              | 50             | 425                          | 510                            | ATV9B0C40Q6                     |           |
| HD                                                 | 315         | –  | 287  | 343              | 50             | 340                          | 510                            |                                 |           |
| ND                                                 | 500         | –  | 453  | 541              | 50             | 520                          | 624                            | ATV9B0C50Q6                     |           |
| HD                                                 | 400         | –  | 362  | 433              | 50             | 425                          | 638                            |                                 |           |
| ND                                                 | 630         | –  | 568  | 678              | 50             | 650                          | 780                            | ATV9B0C63Q6                     |           |
| HD                                                 | 500         | –  | 453  | 541              | 50             | 520                          | 780                            |                                 |           |
| ND                                                 | 800         | –  | 718  | 859              | 50             | 830                          | 996                            | ATV9B0C80Q6                     |           |
| HD                                                 | 630         | –  | 569  | 680              | 50             | 650                          | 975                            |                                 |           |
| ND                                                 | 1000        | –  | 898  | 1073             | 50             | 1030                         | 1236                           | ATV9B0M10Q6                     |           |
| HD                                                 | 800         | –  | 718  | 859              | 50             | 830                          | 1245                           |                                 |           |
| ND                                                 | 1200        | –  | 1078 | 1288             | 50             | 1230                         | 1476                           | ATV9B0M12Q6                     |           |
| HD                                                 | 1000        | –  | 898  | 1073             | 50             | 1030                         | 1545                           |                                 |           |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual PHA2452602).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

## Variable speed drives

Altivar Process Modular

Modular Liquid-cooled drives

Three-phase supply voltage: 400 V 50/60 Hz

ATVM\_CP20132



ATV6L0C13Q4

ATVM\_CP20133



ATV6L0C50Q4

## 400 V (-15...10%) IP00 Modular Liquid-cooled drives (1)

| Motor                                                          |      |   | Line supply            |                   |                                    | Altivar Process                         |                                          |             |
|----------------------------------------------------------------|------|---|------------------------|-------------------|------------------------------------|-----------------------------------------|------------------------------------------|-------------|
| Power indicated on rating plate<br>(2)                         |      |   | Line<br>current<br>(3) | Apparent<br>power | Maximum<br>prospective<br>line Isc | Maximum<br>continuous<br>current<br>(2) | Max.<br>transient<br>current for<br>60 s | Reference   |
|                                                                |      |   | 400 V                  | 400 V             |                                    |                                         |                                          |             |
|                                                                |      |   |                        |                   |                                    |                                         |                                          |             |
| ND: Normal duty                                                |      |   |                        |                   |                                    |                                         |                                          |             |
| HD: Heavy duty                                                 |      |   |                        |                   |                                    |                                         |                                          |             |
| kW                                                             | HP   |   | A                      | kVA               | kA                                 | A                                       | A                                        |             |
| Altivar Process Modular Liquid-cooled                          |      |   |                        |                   |                                    |                                         |                                          |             |
| THDi ≤ 48% at 100% load in Normal duty with 6-pulse supply (4) |      |   |                        |                   |                                    |                                         |                                          |             |
| ND                                                             | 132  | - | 244                    | 169               | 50                                 | 250                                     | 275                                      | ATV6L0C13Q4 |
| HD                                                             | 110  | - | 210                    | 145               | 50                                 | 211                                     | 317                                      |             |
| ND                                                             | 160  | - | 287                    | 199               | 50                                 | 302                                     | 332                                      | ATV6L0C16Q4 |
| HD                                                             | 132  | - | 244                    | 169               | 50                                 | 250                                     | 375                                      |             |
| ND                                                             | 200  | - | 350                    | 242               | 50                                 | 370                                     | 407                                      | ATV6L0C20Q4 |
| HD                                                             | 160  | - | 287                    | 199               | 50                                 | 302                                     | 453                                      |             |
| ND                                                             | 250  | - | 429                    | 297               | 50                                 | 477                                     | 525                                      | ATV6L0C25Q4 |
| HD                                                             | 200  | - | 350                    | 242               | 50                                 | 370                                     | 555                                      |             |
| ND                                                             | 315  | - | 536                    | 371               | 50                                 | 590                                     | 649                                      | ATV6L0C31Q4 |
| HD                                                             | 250  | - | 429                    | 297               | 50                                 | 477                                     | 716                                      |             |
| ND                                                             | 400  | - | 684                    | 474               | 50                                 | 730                                     | 803                                      | ATV6L0C40Q4 |
| HD                                                             | 315  | - | 549                    | 380               | 50                                 | 590                                     | 885                                      |             |
| ND                                                             | 500  | - | 847                    | 587               | 50                                 | 900                                     | 990                                      | ATV6L0C50Q4 |
| HD                                                             | 400  | - | 684                    | 474               | 50                                 | 730                                     | 1095                                     |             |
| ND                                                             | 630  | - | 1056                   | 732               | 50                                 | 1140                                    | 1254                                     | ATV6L0C63Q4 |
| HD                                                             | 500  | - | 847                    | 587               | 50                                 | 900                                     | 1350                                     |             |
| ND                                                             | 800  | - | 1335                   | 925               | 50                                 | 1420                                    | 1562                                     | ATV6L0C80Q4 |
| HD                                                             | 630  | - | 1062                   | 736               | 50                                 | 1140                                    | 1710                                     |             |
| ND                                                             | 900  | - | 1502                   | 1041              | 50                                 | 1600                                    | 1760                                     | ATV6L0C90Q4 |
| HD                                                             | 710  | - | 1188                   | 823               | 50                                 | 1260                                    | 1890                                     |             |
| ND                                                             | 1000 | - | 1669                   | 1156              | 50                                 | 1770                                    | 1947                                     | ATV6L0M10Q4 |
| HD                                                             | 800  | - | 1339                   | 928               | 50                                 | 1420                                    | 2130                                     |             |
| ND                                                             | 1200 | - | 2005                   | 1389              | 50                                 | 2140                                    | 2354                                     | ATV6L0M12Q4 |
| HD                                                             | 1000 | - | 1669                   | 1156              | 50                                 | 1770                                    | 2655                                     |             |
| ND                                                             | 1500 | - | 2513                   | 1741              | 50                                 | 2680                                    | 2948                                     | ATV6L0M15Q4 |
| HD                                                             | 1200 | - | 2005                   | 1389              | 50                                 | 2140                                    | 3210                                     |             |
| ND                                                             | 1800 | - | 3028                   | 2098              | 50                                 | 3200                                    | 3520                                     | ATV6L0M18Q4 |
| HD                                                             | 1400 | - | 2341                   | 1622              | 50                                 | 2470                                    | 3705                                     |             |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise. For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

(4) APM-L architecture is ready for 12-pulse supply, which allows a THDi ≤ 9%.



## Variable speed drives

Altivar Process Modular

Modular Liquid-cooled drives

Three-phase supply voltage: 400 V 50/60 Hz



ATV9L0C13Q4



ATV9L0C50Q4

| 400 V (-15...10%) IP00 Modular Liquid-cooled drives (1)       |      |   |                  |                |                              |                                |                                 |             |
|---------------------------------------------------------------|------|---|------------------|----------------|------------------------------|--------------------------------|---------------------------------|-------------|
| Motor                                                         |      |   | Line supply      |                |                              | Altivar Process                |                                 |             |
| Power indicated on rating plate (2)                           |      |   | Line current (3) | Apparent power | Maximum prospective line Isc | Maximum continuous current (2) | Max. transient current for 60 s | Reference   |
| ND: Normal duty<br>HD: Heavy duty                             |      |   | 400 V            | 400 V          |                              |                                |                                 |             |
| kW                                                            | HP   |   | A                | kVA            | kA                           | A                              | A                               |             |
| Altivar Process Modular Liquid-cooled                         |      |   |                  |                |                              |                                |                                 |             |
| THDi ≤48% at 100% load in Normal duty with 6-pulse supply (4) |      |   |                  |                |                              |                                |                                 |             |
| ND                                                            | 132  | - | 244              | 169            | 50                           | 250                            | 300                             | ATV9L0C13Q4 |
| HD                                                            | 110  | - | 210              | 145            | 50                           | 211                            | 317                             |             |
| ND                                                            | 160  | - | 287              | 199            | 50                           | 302                            | 362                             | ATV9L0C16Q4 |
| HD                                                            | 132  | - | 244              | 169            | 50                           | 250                            | 375                             |             |
| ND                                                            | 200  | - | 350              | 242            | 50                           | 370                            | 444                             | ATV9L0C20Q4 |
| HD                                                            | 160  | - | 287              | 199            | 50                           | 302                            | 453                             |             |
| ND                                                            | 250  | - | 429              | 297            | 50                           | 477                            | 572                             | ATV9L0C25Q4 |
| HD                                                            | 200  | - | 350              | 242            | 50                           | 370                            | 555                             |             |
| ND                                                            | 315  | - | 536              | 371            | 50                           | 590                            | 708                             | ATV9L0C31Q4 |
| HD                                                            | 250  | - | 429              | 297            | 50                           | 477                            | 716                             |             |
| ND                                                            | 400  | - | 684              | 474            | 50                           | 730                            | 876                             | ATV9L0C40Q4 |
| HD                                                            | 315  | - | 549              | 380            | 50                           | 590                            | 885                             |             |
| ND                                                            | 500  | - | 847              | 587            | 50                           | 900                            | 1080                            | ATV9L0C50Q4 |
| HD                                                            | 400  | - | 684              | 474            | 50                           | 730                            | 1095                            |             |
| ND                                                            | 630  | - | 1056             | 732            | 50                           | 1140                           | 1368                            | ATV9L0C63Q4 |
| HD                                                            | 500  | - | 847              | 587            | 50                           | 900                            | 1350                            |             |
| ND                                                            | 800  | - | 1335             | 925            | 50                           | 1420                           | 1704                            | ATV9L0C80Q4 |
| HD                                                            | 630  | - | 1062             | 736            | 50                           | 1140                           | 1710                            |             |
| ND                                                            | 900  | - | 1502             | 1041           | 50                           | 1600                           | 1920                            | ATV9L0C90Q4 |
| HD                                                            | 710  | - | 1188             | 823            | 50                           | 1260                           | 1890                            |             |
| ND                                                            | 1000 | - | 1669             | 1156           | 50                           | 1770                           | 2124                            | ATV9L0M10Q4 |
| HD                                                            | 800  | - | 1339             | 928            | 50                           | 1420                           | 2130                            |             |
| ND                                                            | 1200 | - | 2005             | 1389           | 50                           | 2140                           | 2568                            | ATV9L0M12Q4 |
| HD                                                            | 1000 | - | 1669             | 1156           | 50                           | 1770                           | 2655                            |             |
| ND                                                            | 1500 | - | 2513             | 1741           | 50                           | 2680                           | 3216                            | ATV9L0M15Q4 |
| HD                                                            | 1200 | - | 2005             | 1389           | 50                           | 2140                           | 3210                            |             |
| ND                                                            | 1800 | - | 3028             | 2098           | 50                           | 3200                           | 3840                            | ATV9L0M18Q4 |
| HD                                                            | 1400 | - | 2341             | 1622           | 50                           | 2470                           | 3705                            |             |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

(4) APM-L architecture is ready for 12-pulse supply, which allows a THDi ≤9%.

## Variable speed drives

Altivar Process Modular

Modular Liquid-cooled drives

Three-phase supply voltage: 440 V 50/60 Hz

ATVM\_CP20134



ATV6L0C80R4

ATVM\_CP20135



ATV6L0M10R4

## 440 V (-15...10%) IP00 Modular Liquid-cooled drives (1)

| Motor                                                         | Line supply                         |                  |                | Altivar Process              |                                |                                 |
|---------------------------------------------------------------|-------------------------------------|------------------|----------------|------------------------------|--------------------------------|---------------------------------|
|                                                               | Power indicated on rating plate (2) | Line current (3) | Apparent power | Maximum prospective line Isc | Maximum continuous current (2) | Max. transient current for 60 s |
|                                                               |                                     | 440 V            | 440 V          |                              |                                |                                 |
| ND: Normal duty                                               |                                     |                  |                |                              |                                |                                 |
| HD: Heavy duty                                                |                                     |                  |                |                              |                                |                                 |
|                                                               | kW                                  | HP               | A              | kVA                          | kA                             | A                               |
| Altivar Process Modular Liquid-cooled                         |                                     |                  |                |                              |                                |                                 |
| THDi ≤48% at 100% load in Normal duty with 6-pulse supply (4) |                                     |                  |                |                              |                                |                                 |
| ND                                                            | 132                                 | -                | 228            | 174                          | 50                             | 250                             |
| HD                                                            | 110                                 | -                | 198            | 151                          | 50                             | 211                             |
| ND                                                            | 160                                 | -                | 266            | 203                          | 50                             | 302                             |
| HD                                                            | 132                                 | -                | 228            | 174                          | 50                             | 250                             |
| ND                                                            | 200                                 | -                | 323            | 246                          | 50                             | 370                             |
| HD                                                            | 160                                 | -                | 266            | 203                          | 50                             | 302                             |
| ND                                                            | 250                                 | -                | 394            | 300                          | 50                             | 477                             |
| HD                                                            | 200                                 | -                | 323            | 246                          | 50                             | 370                             |
| ND                                                            | 315                                 | -                | 490            | 373                          | 50                             | 590                             |
| HD                                                            | 250                                 | -                | 394            | 300                          | 50                             | 477                             |
| ND                                                            | 400                                 | -                | 627            | 478                          | 50                             | 730                             |
| HD                                                            | 315                                 | -                | 506            | 386                          | 50                             | 590                             |
| ND                                                            | 500                                 | -                | 774            | 590                          | 50                             | 900                             |
| HD                                                            | 400                                 | -                | 627            | 478                          | 50                             | 730                             |
| ND                                                            | 630                                 | -                | 963            | 734                          | 50                             | 1140                            |
| HD                                                            | 500                                 | -                | 774            | 590                          | 50                             | 900                             |
| ND                                                            | 800                                 | -                | 1217           | 927                          | 50                             | 1420                            |
| HD                                                            | 630                                 | -                | 969            | 738                          | 50                             | 1140                            |
| ND                                                            | 900                                 | -                | 1365           | 1040                         | 50                             | 1600                            |
| HD                                                            | 710                                 | -                | 1083           | 825                          | 50                             | 1260                            |
| ND                                                            | 1000                                | -                | 1518           | 1157                         | 50                             | 1770                            |
| HD                                                            | 800                                 | -                | 1220           | 930                          | 50                             | 1420                            |
| ND                                                            | 1200                                | -                | 1820           | 1387                         | 50                             | 2140                            |
| HD                                                            | 1000                                | -                | 1518           | 1157                         | 50                             | 1770                            |
| ND                                                            | 1500                                | -                | 2279           | 1737                         | 50                             | 2680                            |
| HD                                                            | 1200                                | -                | 1820           | 1387                         | 50                             | 2140                            |
| ND                                                            | 1800                                | -                | 2741           | 2089                         | 50                             | 3200                            |
| HD                                                            | 1400                                | -                | 2125           | 1619                         | 50                             | 2470                            |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

(4) APM-L architecture is ready for 12-pulse supply, which allows a THDi ≤9%.

## Variable speed drives

Altivar Process Modular

Modular Liquid-cooled drives

Three-phase supply voltage: 440 V 50/60 Hz

ATVM\_CP20134



ATV9L0C80R4

ATVM\_CP20135



ATV9L0M10R4

## 440 V (-15...10%) IP00 Modular Liquid-cooled drives (1)

| Motor                                                         |      |   | Line supply      |                |                              | Altivar Process                |                                 |             |
|---------------------------------------------------------------|------|---|------------------|----------------|------------------------------|--------------------------------|---------------------------------|-------------|
| Power indicated on rating plate (2)                           |      |   | Line current (3) | Apparent power | Maximum prospective line Isc | Maximum continuous current (2) | Max. transient current for 60 s | Reference   |
| ND: Normal duty<br>HD: Heavy duty                             |      |   | 440 V            | 440 V          |                              |                                |                                 |             |
| kW HP                                                         |      |   | A                | kVA            | kA                           | A                              | A                               |             |
| Altivar Process Modular Liquid-cooled                         |      |   |                  |                |                              |                                |                                 |             |
| THDi ≤48% at 100% load in Normal duty with 6-pulse supply (4) |      |   |                  |                |                              |                                |                                 |             |
| ND                                                            | 132  | - | 228              | 174            | 50                           | 250                            | 300                             | ATV9L0C13R4 |
| HD                                                            | 110  | - | 198              | 151            | 50                           | 211                            | 317                             |             |
| ND                                                            | 160  | - | 266              | 203            | 50                           | 302                            | 362                             | ATV9L0C16R4 |
| HD                                                            | 132  | - | 228              | 174            | 50                           | 250                            | 375                             |             |
| ND                                                            | 200  | - | 323              | 246            | 50                           | 370                            | 444                             | ATV9L0C20R4 |
| HD                                                            | 160  | - | 266              | 203            | 50                           | 302                            | 453                             |             |
| ND                                                            | 250  | - | 394              | 300            | 50                           | 477                            | 572                             | ATV9L0C25R4 |
| HD                                                            | 200  | - | 323              | 246            | 50                           | 370                            | 555                             |             |
| ND                                                            | 315  | - | 490              | 373            | 50                           | 590                            | 708                             | ATV9L0C31R4 |
| HD                                                            | 250  | - | 394              | 300            | 50                           | 477                            | 716                             |             |
| ND                                                            | 400  | - | 627              | 478            | 50                           | 730                            | 876                             | ATV9L0C40R4 |
| HD                                                            | 315  | - | 506              | 386            | 50                           | 590                            | 885                             |             |
| ND                                                            | 500  | - | 774              | 590            | 50                           | 900                            | 1080                            | ATV9L0C50R4 |
| HD                                                            | 400  | - | 627              | 478            | 50                           | 730                            | 1095                            |             |
| ND                                                            | 630  | - | 963              | 734            | 50                           | 1140                           | 1368                            | ATV9L0C63R4 |
| HD                                                            | 500  | - | 774              | 590            | 50                           | 900                            | 1350                            |             |
| ND                                                            | 800  | - | 1217             | 927            | 50                           | 1420                           | 1704                            | ATV9L0C80R4 |
| HD                                                            | 630  | - | 969              | 738            | 50                           | 1140                           | 1710                            |             |
| ND                                                            | 900  | - | 1365             | 1040           | 50                           | 1600                           | 1920                            | ATV9L0C90R4 |
| HD                                                            | 710  | - | 1083             | 825            | 50                           | 1260                           | 1890                            |             |
| ND                                                            | 1000 | - | 1518             | 1157           | 50                           | 1770                           | 2124                            | ATV9L0M10R4 |
| HD                                                            | 800  | - | 1220             | 930            | 50                           | 1420                           | 2130                            |             |
| ND                                                            | 1200 | - | 1820             | 1387           | 50                           | 2140                           | 2568                            | ATV9L0M12R4 |
| HD                                                            | 1000 | - | 1518             | 1157           | 50                           | 1770                           | 2655                            |             |
| ND                                                            | 1500 | - | 2279             | 1737           | 50                           | 2680                           | 3216                            | ATV9L0M15R4 |
| HD                                                            | 1200 | - | 1820             | 1387           | 50                           | 2140                           | 3210                            |             |
| ND                                                            | 1800 | - | 2741             | 2089           | 50                           | 3200                           | 3840                            | ATV9L0M18R4 |
| HD                                                            | 1400 | - | 2125             | 1619           | 50                           | 2470                           | 3705                            |             |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

(4) APM-L architecture is ready for 12-pulse supply, which allows a THDi ≤9%.

## Variable speed drives

Altivar Process Modular

Modular Liquid-cooled drives

Three-phase supply voltage: 480 V 50/60 Hz

ATVM\_CP20136



ATV6L0M15T4

ATVM\_CP20137



ATV6L0M18T4

## 480 V (-15...10%) IP00 Modular Liquid-cooled drives (1)

| Motor                                                                        |    |      | Line supply      |                |                              | Altivar Process                |                                 |             |
|------------------------------------------------------------------------------|----|------|------------------|----------------|------------------------------|--------------------------------|---------------------------------|-------------|
| Power indicated on rating plate (2)<br><br>ND: Normal duty<br>HD: Heavy duty |    |      | Line current (3) | Apparent power | Maximum prospective line Isc | Maximum continuous current (2) | Max. transient current for 60 s | Reference   |
|                                                                              |    |      | 480 V            | 480 V          |                              |                                |                                 |             |
|                                                                              |    |      |                  |                |                              |                                |                                 |             |
| kW                                                                           | HP |      | A                | kVA            | kA                           | A                              | A                               |             |
| Altivar Process Modular Liquid-cooled                                        |    |      |                  |                |                              |                                |                                 |             |
| THDi ≤48% at 100% load in Normal duty with 6-pulse supply (4)                |    |      |                  |                |                              |                                |                                 |             |
| ND                                                                           | -  | 200  | 230              | 191            | 50                           | 250                            | 275                             | ATV6L0C13T4 |
| HD                                                                           | -  | 150  | 183              | 152            | 50                           | 211                            | 317                             |             |
| ND                                                                           | -  | 250  | 278              | 231            | 50                           | 302                            | 332                             | ATV6L0C16T4 |
| HD                                                                           | -  | 200  | 230              | 191            | 50                           | 250                            | 375                             |             |
| ND                                                                           | -  | 300  | 327              | 272            | 50                           | 370                            | 407                             | ATV6L0C20T4 |
| HD                                                                           | -  | 250  | 278              | 231            | 50                           | 302                            | 453                             |             |
| ND                                                                           | -  | 400  | 425              | 353            | 50                           | 477                            | 525                             | ATV6L0C25T4 |
| HD                                                                           | -  | 300  | 327              | 272            | 50                           | 370                            | 555                             |             |
| ND                                                                           | -  | 500  | 527              | 438            | 50                           | 590                            | 649                             | ATV6L0C31T4 |
| HD                                                                           | -  | 400  | 425              | 353            | 50                           | 477                            | 716                             |             |
| ND                                                                           | -  | 600  | 638              | 530            | 50                           | 730                            | 803                             | ATV6L0C40T4 |
| HD                                                                           | -  | 500  | 540              | 449            | 50                           | 590                            | 885                             |             |
| ND                                                                           | -  | 700  | 738              | 614            | 50                           | 900                            | 990                             | ATV6L0C50T4 |
| HD                                                                           | -  | 600  | 638              | 530            | 50                           | 730                            | 1095                            |             |
| ND                                                                           | -  | 900  | 938              | 780            | 50                           | 1140                           | 1254                            | ATV6L0C63T4 |
| HD                                                                           | -  | 700  | 738              | 614            | 50                           | 900                            | 1350                            |             |
| ND                                                                           | -  | 1100 | 1148             | 954            | 50                           | 1420                           | 1562                            | ATV6L0C80T4 |
| HD                                                                           | -  | 900  | 944              | 785            | 50                           | 1140                           | 1710                            |             |
| ND                                                                           | -  | 1300 | 1345             | 1118           | 50                           | 1600                           | 1760                            | ATV6L0C90T4 |
| HD                                                                           | -  | 1000 | 1045             | 869            | 50                           | 1260                           | 1890                            |             |
| ND                                                                           | -  | 1400 | 1451             | 1206           | 50                           | 1770                           | 1947                            | ATV6L0M10T4 |
| HD                                                                           | -  | 1100 | 1151             | 957            | 50                           | 1420                           | 2130                            |             |
| ND                                                                           | -  | 1700 | 1761             | 1464           | 50                           | 2140                           | 2354                            | ATV6L0M12T4 |
| HD                                                                           | -  | 1400 | 1451             | 1206           | 50                           | 1770                           | 2655                            |             |
| ND                                                                           | -  | 2200 | 2282             | 1897           | 50                           | 2680                           | 2948                            | ATV6L0M15T4 |
| HD                                                                           | -  | 1700 | 1761             | 1464           | 50                           | 2140                           | 3210                            |             |
| ND                                                                           | -  | 2500 | 2598             | 2160           | 50                           | 3200                           | 3520                            | ATV6L0M18T4 |
| HD                                                                           | -  | 2000 | 2073             | 1723           | 50                           | 2470                           | 3705                            |             |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

(4) APM-L architecture is ready for 12-pulse supply, which allows a THDi ≤9%.

## Variable speed drives

Altivar Process Modular

Modular Liquid-cooled drives

Three-phase supply voltage: 480 V 50/60 Hz

ATVM\_CP20136



ATV9L0M15T4

ATVM\_CP20137



ATV9L0M18T4

## 480 V (-15...10%) IP00 Modular Liquid-cooled drives (1)

| Motor                                                         |       | Line supply      |                |                              | Altivar Process                |                                 |           |
|---------------------------------------------------------------|-------|------------------|----------------|------------------------------|--------------------------------|---------------------------------|-----------|
| Power indicated on rating plate (2)                           |       | Line current (3) | Apparent power | Maximum prospective line Isc | Maximum continuous current (2) | Max. transient current for 60 s | Reference |
| ND: Normal duty<br>HD: Heavy duty                             |       | 480 V            | 480 V          |                              |                                |                                 |           |
|                                                               | kW HP | A                | kVA            | kA                           | A                              | A                               |           |
| Altivar Process Modular Liquid-cooled                         |       |                  |                |                              |                                |                                 |           |
| THDi ≤48% at 100% load in Normal duty with 6-pulse supply (4) |       |                  |                |                              |                                |                                 |           |
| ND                                                            | -     | 200              | 230            | 191                          | 50                             | 250                             | 300       |
| HD                                                            | -     | 150              | 183            | 152                          | 50                             | 211                             | 317       |
| ND                                                            | -     | 250              | 278            | 231                          | 50                             | 302                             | 362       |
| HD                                                            | -     | 200              | 230            | 191                          | 50                             | 250                             | 375       |
| ND                                                            | -     | 300              | 327            | 272                          | 50                             | 370                             | 444       |
| HD                                                            | -     | 250              | 278            | 231                          | 50                             | 302                             | 453       |
| ND                                                            | -     | 400              | 425            | 353                          | 50                             | 477                             | 572       |
| HD                                                            | -     | 300              | 327            | 272                          | 50                             | 370                             | 555       |
| ND                                                            | -     | 500              | 527            | 438                          | 50                             | 590                             | 708       |
| HD                                                            | -     | 400              | 425            | 353                          | 50                             | 477                             | 716       |
| ND                                                            | -     | 600              | 638            | 530                          | 50                             | 730                             | 876       |
| HD                                                            | -     | 500              | 540            | 449                          | 50                             | 590                             | 885       |
| ND                                                            | -     | 700              | 738            | 614                          | 50                             | 900                             | 1080      |
| HD                                                            | -     | 600              | 638            | 530                          | 50                             | 730                             | 1095      |
| ND                                                            | -     | 900              | 938            | 780                          | 50                             | 1140                            | 1368      |
| HD                                                            | -     | 700              | 738            | 614                          | 50                             | 900                             | 1350      |
| ND                                                            | -     | 1100             | 1148           | 954                          | 50                             | 1420                            | 1704      |
| HD                                                            | -     | 900              | 944            | 785                          | 50                             | 1140                            | 1710      |
| ND                                                            | -     | 1300             | 1345           | 1118                         | 50                             | 1600                            | 1920      |
| HD                                                            | -     | 1000             | 1045           | 869                          | 50                             | 1260                            | 1890      |
| ND                                                            | -     | 1400             | 1451           | 1206                         | 50                             | 1770                            | 2124      |
| HD                                                            | -     | 1100             | 1151           | 957                          | 50                             | 1420                            | 2130      |
| ND                                                            | -     | 1700             | 1761           | 1464                         | 50                             | 2140                            | 2568      |
| HD                                                            | -     | 1400             | 1451           | 1206                         | 50                             | 1770                            | 2655      |
| ND                                                            | -     | 2200             | 2282           | 1897                         | 50                             | 2680                            | 3216      |
| HD                                                            | -     | 1700             | 1761           | 1464                         | 50                             | 2140                            | 3210      |
| ND                                                            | -     | 2500             | 2598           | 2160                         | 50                             | 3200                            | 3840      |
| HD                                                            | -     | 2000             | 2073           | 1723                         | 50                             | 2470                            | 3705      |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

(4) APM-L architecture is ready for 12-pulse supply, which allows a THDi ≤9%.



## Variable speed drives

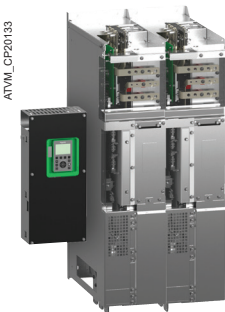
Altivar Process Modular

Modular Liquid-cooled drives

Three-phase supply voltage: 500 V 50/60 Hz



ATV6L0C20N6



ATV6L0C71N6

500 V (-10...15%) IP00 Modular Liquid-cooled drives <sup>(1)</sup>

| Motor                                                          |      |   | Line supply      |                |                              | Altivar Process                |                                 |             |
|----------------------------------------------------------------|------|---|------------------|----------------|------------------------------|--------------------------------|---------------------------------|-------------|
| Power indicated on rating plate (2)                            |      |   | Line current (3) | Apparent power | Maximum prospective line Isc | Maximum continuous current (2) | Max. transient current for 60 s | Reference   |
| ND: Normal duty<br>HD: Heavy duty                              |      |   | 500 V            | 500 V          |                              |                                |                                 |             |
| kW                                                             | HP   |   | A                | kVA            | kA                           | A                              | A                               |             |
| Altivar Process Modular Liquid-cooled                          |      |   |                  |                |                              |                                |                                 |             |
| THDi ≤ 48% at 100% load in Normal duty with 6-pulse supply (4) |      |   |                  |                |                              |                                |                                 |             |
| ND                                                             | 132  | - | 196              | 170            | 50                           | 215                            | 237                             | ATV6L0C20N6 |
| HD                                                             | 110  | - | 169              | 146            | 50                           | 175                            | 263                             |             |
| ND                                                             | 200  | - | 281              | 243            | 50                           | 308                            | 339                             | ATV6L0C28N6 |
| HD                                                             | 160  | - | 230              | 199            | 50                           | 240                            | 360                             |             |
| ND                                                             | 220  | - | 307              | 266            | 50                           | 340                            | 374                             | ATV6L0C31N6 |
| HD                                                             | 180  | - | 256              | 222            | 50                           | 275                            | 413                             |             |
| ND                                                             | 250  | - | 344              | 298            | 50                           | 425                            | 468                             | ATV6L0C40N6 |
| HD                                                             | 220  | - | 307              | 266            | 50                           | 340                            | 510                             |             |
| ND                                                             | 315  | - | 429              | 372            | 50                           | 480                            | 528                             | ATV6L0C45N6 |
| HD                                                             | 250  | - | 344              | 298            | 50                           | 384                            | 576                             |             |
| ND                                                             | 400  | - | 549              | 475            | 50                           | 590                            | 649                             | ATV6L0C56N6 |
| HD                                                             | 315  | - | 442              | 383            | 50                           | 480                            | 720                             |             |
| ND                                                             | 500  | - | 679              | 588            | 50                           | 740                            | 814                             | ATV6L0C71N6 |
| HD                                                             | 400  | - | 549              | 475            | 50                           | 590                            | 885                             |             |
| ND                                                             | 630  | - | 846              | 733            | 50                           | 930                            | 1023                            | ATV6L0C90N6 |
| HD                                                             | 500  | - | 679              | 588            | 50                           | 740                            | 1110                            |             |
| ND                                                             | 800  | - | 1070             | 927            | 50                           | 1230                           | 1353                            | ATV6L0M12N6 |
| HD                                                             | 710  | - | 957              | 829            | 50                           | 1030                           | 1545                            |             |
| ND                                                             | 1000 | - | 1335             | 1156           | 50                           | 1425                           | 1568                            | ATV6L0M14N6 |
| HD                                                             | 800  | - | 1070             | 927            | 50                           | 1130                           | 1695                            |             |
| ND                                                             | 1200 | - | 1603             | 1388           | 50                           | 1620                           | 1782                            | ATV6L0M16N6 |
| HD                                                             | 900  | - | 1204             | 1043           | 50                           | 1330                           | 1995                            |             |
| ND                                                             | 1300 | - | 1737             | 1504           | 50                           | 1820                           | 2002                            | ATV6L0M18N6 |
| HD                                                             | 1000 | - | 1335             | 1156           | 50                           | 1425                           | 2138                            |             |
| ND                                                             | 1600 | - | 2141             | 1854           | 50                           | 2220                           | 2442                            | ATV6L0M22N6 |
| HD                                                             | 1200 | - | 1602             | 1387           | 50                           | 1720                           | 2580                            |             |
| ND                                                             | 1900 | - | 2550             | 2208           | 50                           | 2620                           | 2882                            | ATV6L0M26N6 |
| HD                                                             | 1500 | - | 2005             | 1736           | 50                           | 2120                           | 3180                            |             |

<sup>(1)</sup> Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.<sup>(2)</sup> These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual).

<sup>(3)</sup> Typical value for the indicated motor power and for the maximum prospective line Isc.<sup>(4)</sup> APM-L architecture is ready for 12-pulse supply, which allows a THDi ≤ 9%.

## Variable speed drives

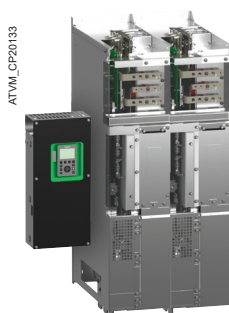
Altivar Process Modular

Modular Liquid-cooled drives

Three-phase supply voltage: 500 V 50/60 Hz



ATV9L0C20N6



ATV9L0C71N6

| 500 V (-10...15%) IP00 Modular Liquid-cooled drives (1).       |      |   |                  |                |                              |                                |                                 |             |
|----------------------------------------------------------------|------|---|------------------|----------------|------------------------------|--------------------------------|---------------------------------|-------------|
| Motor                                                          |      |   | Line supply      |                |                              | Altivar Process                |                                 |             |
| Power indicated on rating plate (2)                            |      |   | Line current (3) | Apparent power | Maximum prospective line Isc | Maximum continuous current (2) | Max. transient current for 60 s | Reference   |
| ND: Normal duty<br>HD: Heavy duty                              |      |   | 500 V            | 500 V          |                              |                                |                                 |             |
| kW                                                             | HP   |   | A                | kVA            | kA                           | A                              | A                               |             |
| Altivar Process Modular Liquid-cooled                          |      |   |                  |                |                              |                                |                                 |             |
| THDi ≤ 48% at 100% load in Normal duty with 6-pulse supply (4) |      |   |                  |                |                              |                                |                                 |             |
| ND                                                             | 132  | - | 196              | 170            | 50                           | 215                            | 258                             | ATV9L0C20N6 |
| HD                                                             | 110  | - | 169              | 146            | 50                           | 175                            | 263                             |             |
| ND                                                             | 200  | - | 281              | 243            | 50                           | 308                            | 370                             | ATV9L0C28N6 |
| HD                                                             | 160  | - | 230              | 199            | 50                           | 240                            | 360                             |             |
| ND                                                             | 220  | - | 307              | 266            | 50                           | 340                            | 408                             | ATV9L0C31N6 |
| HD                                                             | 180  | - | 256              | 222            | 50                           | 275                            | 413                             |             |
| ND                                                             | 250  | - | 344              | 298            | 50                           | 425                            | 510                             | ATV9L0C40N6 |
| HD                                                             | 220  | - | 307              | 266            | 50                           | 340                            | 510                             |             |
| ND                                                             | 315  | - | 429              | 372            | 50                           | 480                            | 576                             | ATV9L0C45N6 |
| HD                                                             | 250  | - | 344              | 298            | 50                           | 384                            | 576                             |             |
| ND                                                             | 400  | - | 549              | 475            | 50                           | 590                            | 708                             | ATV9L0C56N6 |
| HD                                                             | 315  | - | 442              | 383            | 50                           | 480                            | 720                             |             |
| ND                                                             | 500  | - | 679              | 588            | 50                           | 740                            | 888                             | ATV9L0C71N6 |
| HD                                                             | 400  | - | 549              | 475            | 50                           | 590                            | 885                             |             |
| ND                                                             | 630  | - | 846              | 733            | 50                           | 930                            | 1116                            | ATV9L0C90N6 |
| HD                                                             | 500  | - | 679              | 588            | 50                           | 740                            | 1110                            |             |
| ND                                                             | 800  | - | 1070             | 927            | 50                           | 1230                           | 1476                            | ATV9L0M12N6 |
| HD                                                             | 710  | - | 957              | 829            | 50                           | 1030                           | 1545                            |             |
| ND                                                             | 1000 | - | 1335             | 1156           | 50                           | 1425                           | 1710                            | ATV9L0M14N6 |
| HD                                                             | 800  | - | 1070             | 927            | 50                           | 1130                           | 1695                            |             |
| ND                                                             | 1200 | - | 1603             | 1388           | 50                           | 1620                           | 1944                            | ATV9L0M16N6 |
| HD                                                             | 900  | - | 1204             | 1043           | 50                           | 1330                           | 1995                            |             |
| ND                                                             | 1300 | - | 1737             | 1504           | 50                           | 1820                           | 2184                            | ATV9L0M18N6 |
| HD                                                             | 1000 | - | 1335             | 1156           | 50                           | 1425                           | 2138                            |             |
| ND                                                             | 1600 | - | 2141             | 1854           | 50                           | 2220                           | 2664                            | ATV9L0M22N6 |
| HD                                                             | 1200 | - | 1602             | 1387           | 50                           | 1720                           | 2580                            |             |
| ND                                                             | 1900 | - | 2550             | 2208           | 50                           | 2620                           | 3144                            | ATV9L0M26N6 |
| HD                                                             | 1500 | - | 2005             | 1736           | 50                           | 2120                           | 3180                            |             |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

(4) APM-L architecture is ready for 12-pulse supply, which allows a THDi ≤ 9%.

## Variable speed drives

Altivar Process Modular

Modular Liquid-cooled drives

Three-phase supply voltage: 600 V 50/60 Hz

ATV\_M\_CP20134



ATV6L0M12T6

ATV\_M\_CP20135



ATV6L0M18T6

600 V (-15...10%) IP00 Modular Liquid-cooled drives <sup>(1)</sup>

| Motor                                                                     |    | Line supply                 |                |                              | Altivar Process                           |                                 |           |
|---------------------------------------------------------------------------|----|-----------------------------|----------------|------------------------------|-------------------------------------------|---------------------------------|-----------|
| Power indicated on rating plate <sup>(2)</sup>                            |    | Line current <sup>(3)</sup> | Apparent power | Maximum prospective line Isc | Maximum continuous current <sup>(2)</sup> | Max. transient current for 60 s | Reference |
| ND: Normal duty<br>HD: Heavy duty                                         |    | 600 V                       | 600 V          |                              |                                           |                                 |           |
| kW                                                                        | HP | A                           | kVA            | kA                           | A                                         | A                               |           |
| Altivar Process Modular Liquid-cooled                                     |    |                             |                |                              |                                           |                                 |           |
| THDi ≤ 48% at 100% load in Normal duty with 6-pulse supply <sup>(4)</sup> |    |                             |                |                              |                                           |                                 |           |
| ND                                                                        | -  | 200                         | 184            | 191                          | 50                                        | 215                             | 237       |
| HD                                                                        | -  | 150                         | 146            | 152                          | 50                                        | 175                             | 263       |
| ND                                                                        | -  | 300                         | 261            | 271                          | 50                                        | 308                             | 339       |
| HD                                                                        | -  | 200                         | 184            | 191                          | 50                                        | 240                             | 360       |
| ND                                                                        | -  | 350                         | 302            | 314                          | 50                                        | 340                             | 374       |
| HD                                                                        | -  | 250                         | 223            | 232                          | 50                                        | 275                             | 413       |
| ND                                                                        | -  | 450                         | 381            | 396                          | 50                                        | 425                             | 468       |
| HD                                                                        | -  | 350                         | 302            | 314                          | 50                                        | 340                             | 510       |
| ND                                                                        | -  | 500                         | 422            | 439                          | 50                                        | 480                             | 528       |
| HD                                                                        | -  | 400                         | 340            | 353                          | 50                                        | 384                             | 576       |
| ND                                                                        | -  | 600                         | 512            | 532                          | 50                                        | 590                             | 649       |
| HD                                                                        | -  | 500                         | 434            | 451                          | 50                                        | 480                             | 720       |
| ND                                                                        | -  | 700                         | 592            | 615                          | 50                                        | 740                             | 814       |
| HD                                                                        | -  | 600                         | 512            | 532                          | 50                                        | 590                             | 885       |
| ND                                                                        | -  | 900                         | 751            | 780                          | 50                                        | 930                             | 1023      |
| HD                                                                        | -  | 700                         | 592            | 615                          | 50                                        | 740                             | 1110      |
| ND                                                                        | -  | 1200                        | 996            | 1035                         | 50                                        | 1230                            | 1353      |
| HD                                                                        | -  | 1000                        | 838            | 871                          | 50                                        | 1030                            | 1545      |
| ND                                                                        | -  | 1400                        | 1159           | 1204                         | 50                                        | 1425                            | 1568      |
| HD                                                                        | -  | 1100                        | 919            | 955                          | 50                                        | 1130                            | 1695      |
| ND                                                                        | -  | 1600                        | 1325           | 1377                         | 50                                        | 1620                            | 1782      |
| HD                                                                        | -  | 1300                        | 1081           | 1123                         | 50                                        | 1330                            | 1995      |
| ND                                                                        | -  | 1800                        | 1490           | 1548                         | 50                                        | 1820                            | 2002      |
| HD                                                                        | -  | 1400                        | 1162           | 1208                         | 50                                        | 1425                            | 2138      |
| ND                                                                        | -  | 2200                        | 1823           | 1895                         | 50                                        | 2220                            | 2442      |
| HD                                                                        | -  | 1700                        | 1409           | 1464                         | 50                                        | 1720                            | 2580      |
| ND                                                                        | -  | 2600                        | 2156           | 2241                         | 50                                        | 2620                            | 2882      |
| HD                                                                        | -  | 2100                        | 1740           | 1808                         | 50                                        | 2120                            | 3180      |

<sup>(1)</sup> Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.<sup>(2)</sup> These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual).

<sup>(3)</sup> Typical value for the indicated motor power and for the maximum prospective line Isc.<sup>(4)</sup> APM-L architecture is ready for 12-pulse supply, which allows a THDi ≤ 9%.

## Variable speed drives

Altivar Process Modular

Modular Liquid-cooled drives

Three-phase supply voltage: 600 V 50/60 Hz

ATVM\_CP20134



ATV9L0M12T6

ATVM\_CP20135



ATV9L0M18T6

600 V (-15...10%) IP00 Modular Liquid-cooled drives <sup>(1)</sup>

| Motor                                                          |    |      | Line supply      |                |                              | Altivar Process                |                                 |             |
|----------------------------------------------------------------|----|------|------------------|----------------|------------------------------|--------------------------------|---------------------------------|-------------|
| Power indicated on rating plate (2)                            |    |      | Line current (3) | Apparent power | Maximum prospective line Isc | Maximum continuous current (2) | Max. transient current for 60 s | Reference   |
| ND: Normal duty<br>HD: Heavy duty                              |    |      | 600 V            | 600 V          |                              |                                |                                 |             |
| kW                                                             | HP |      | A                | kVA            | kA                           | A                              | A                               |             |
| Altivar Process Modular Liquid-cooled                          |    |      |                  |                |                              |                                |                                 |             |
| THDi ≤ 48% at 100% load in Normal duty with 6-pulse supply (4) |    |      |                  |                |                              |                                |                                 |             |
| ND                                                             | -  | 200  | 184              | 191            | 50                           | 215                            | 258                             | ATV9L0C20T6 |
| HD                                                             | -  | 150  | 146              | 152            | 50                           | 175                            | 263                             |             |
| ND                                                             | -  | 300  | 261              | 271            | 50                           | 308                            | 370                             | ATV9L0C28T6 |
| HD                                                             | -  | 200  | 184              | 191            | 50                           | 240                            | 360                             |             |
| ND                                                             | -  | 350  | 302              | 314            | 50                           | 340                            | 408                             | ATV9L0C31T6 |
| HD                                                             | -  | 250  | 223              | 232            | 50                           | 275                            | 413                             |             |
| ND                                                             | -  | 450  | 381              | 396            | 50                           | 425                            | 510                             | ATV9L0C40T6 |
| HD                                                             | -  | 350  | 302              | 314            | 50                           | 340                            | 510                             |             |
| ND                                                             | -  | 500  | 422              | 439            | 50                           | 480                            | 576                             | ATV9L0C45T6 |
| HD                                                             | -  | 400  | 340              | 353            | 50                           | 384                            | 576                             |             |
| ND                                                             | -  | 600  | 512              | 532            | 50                           | 590                            | 708                             | ATV9L0C56T6 |
| HD                                                             | -  | 500  | 434              | 451            | 50                           | 480                            | 720                             |             |
| ND                                                             | -  | 700  | 592              | 615            | 50                           | 740                            | 888                             | ATV9L0C71T6 |
| HD                                                             | -  | 600  | 512              | 532            | 50                           | 590                            | 885                             |             |
| ND                                                             | -  | 900  | 751              | 780            | 50                           | 930                            | 1116                            | ATV9L0C90T6 |
| HD                                                             | -  | 700  | 592              | 615            | 50                           | 740                            | 1110                            |             |
| ND                                                             | -  | 1200 | 996              | 1035           | 50                           | 1230                           | 1476                            | ATV9L0M12T6 |
| HD                                                             | -  | 1000 | 838              | 871            | 50                           | 1030                           | 1545                            |             |
| ND                                                             | -  | 1400 | 1159             | 1204           | 50                           | 1425                           | 1710                            | ATV9L0M14T6 |
| HD                                                             | -  | 1100 | 919              | 955            | 50                           | 1130                           | 1695                            |             |
| ND                                                             | -  | 1600 | 1325             | 1377           | 50                           | 1620                           | 1944                            | ATV9L0M16T6 |
| HD                                                             | -  | 1300 | 1081             | 1123           | 50                           | 1330                           | 1995                            |             |
| ND                                                             | -  | 1800 | 1490             | 1548           | 50                           | 1820                           | 2184                            | ATV9L0M18T6 |
| HD                                                             | -  | 1400 | 1162             | 1208           | 50                           | 1425                           | 2138                            |             |
| ND                                                             | -  | 2200 | 1823             | 1895           | 50                           | 2220                           | 2664                            | ATV9L0M22T6 |
| HD                                                             | -  | 1700 | 1409             | 1464           | 50                           | 1720                           | 2580                            |             |
| ND                                                             | -  | 2600 | 2156             | 2241           | 50                           | 2620                           | 3144                            | ATV9L0M26T6 |
| HD                                                             | -  | 2100 | 1740             | 1808           | 50                           | 2120                           | 3180                            |             |

<sup>(1)</sup> Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.<sup>(2)</sup> These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual).

<sup>(3)</sup> Typical value for the indicated motor power and for the maximum prospective line Isc.<sup>(4)</sup> APM-L architecture is ready for 12-pulse supply, which allows a THDi ≤ 9%.

## Variable speed drives

Altivar Process Modular

Modular Liquid-cooled drives

Three-phase supply voltage: 690 V 50/60 Hz

ATVM\_CP20136



ATV6L0M22Q6

ATVM\_CP20136



ATV6L0M26Q6

690 V (-15...10%) IP00 Modular Liquid-cooled drives <sup>(1)</sup>

| Motor                                                          |      |   | Line supply      |                |                              | Altivar Process                |                                 |             |
|----------------------------------------------------------------|------|---|------------------|----------------|------------------------------|--------------------------------|---------------------------------|-------------|
| Power indicated on rating plate (2)                            |      |   | Line current (3) | Apparent power | Maximum prospective line Isc | Maximum continuous current (2) | Max. transient current for 60 s | Reference   |
| ND: Normal duty<br>HD: Heavy duty                              |      |   | 690 V            | 690 V          |                              |                                |                                 |             |
| kW                                                             | HP   |   | A                | kVA            | kA                           | A                              | A                               |             |
| Altivar Process Modular Liquid-cooled                          |      |   |                  |                |                              |                                |                                 |             |
| THDi ≤ 48% at 100% load in Normal duty with 6-pulse supply (4) |      |   |                  |                |                              |                                |                                 |             |
| ND                                                             | 200  | - | 218              | 261            | 50                           | 215                            | 237                             | ATV6L0C20Q6 |
| HD                                                             | 160  | - | 184              | 220            | 50                           | 175                            | 263                             |             |
| ND                                                             | 280  | - | 290              | 347            | 50                           | 308                            | 339                             | ATV6L0C28Q6 |
| HD                                                             | 220  | - | 236              | 282            | 50                           | 240                            | 360                             |             |
| ND                                                             | 315  | - | 322              | 385            | 50                           | 340                            | 374                             | ATV6L0C31Q6 |
| HD                                                             | 250  | - | 262              | 313            | 50                           | 275                            | 413                             |             |
| ND                                                             | 400  | - | 399              | 477            | 50                           | 425                            | 468                             | ATV6L0C40Q6 |
| HD                                                             | 315  | - | 322              | 385            | 50                           | 340                            | 510                             |             |
| ND                                                             | 450  | - | 446              | 533            | 50                           | 480                            | 528                             | ATV6L0C45Q6 |
| HD                                                             | 355  | - | 359              | 429            | 50                           | 384                            | 576                             |             |
| ND                                                             | 560  | - | 563              | 673            | 50                           | 590                            | 649                             | ATV6L0C56Q6 |
| HD                                                             | 450  | - | 462              | 552            | 50                           | 480                            | 720                             |             |
| ND                                                             | 710  | - | 700              | 837            | 50                           | 740                            | 814                             | ATV6L0C71Q6 |
| HD                                                             | 560  | - | 563              | 673            | 50                           | 590                            | 885                             |             |
| ND                                                             | 900  | - | 875              | 1046           | 50                           | 930                            | 1023                            | ATV6L0C90Q6 |
| HD                                                             | 710  | - | 700              | 837            | 50                           | 740                            | 1110                            |             |
| ND                                                             | 1200 | - | 1260             | 1506           | 50                           | 1230                           | 1353                            | ATV6L0M12Q6 |
| HD                                                             | 1000 | - | 976              | 1166           | 50                           | 1030                           | 1545                            |             |
| ND                                                             | 1400 | - | 1355             | 1619           | 50                           | 1425                           | 1568                            | ATV6L0M14Q6 |
| HD                                                             | 1100 | - | 1070             | 1279           | 50                           | 1130                           | 1695                            |             |
| ND                                                             | 1600 | - | 1547             | 1849           | 50                           | 1620                           | 1782                            | ATV6L0M16Q6 |
| HD                                                             | 1300 | - | 1262             | 1508           | 50                           | 1330                           | 1995                            |             |
| ND                                                             | 1800 | - | 1740             | 2080           | 50                           | 1820                           | 2002                            | ATV6L0M18Q6 |
| HD                                                             | 1400 | - | 1357             | 1622           | 50                           | 1425                           | 2138                            |             |
| ND                                                             | 2200 | - | 2128             | 2543           | 50                           | 2220                           | 2442                            | ATV6L0M22Q6 |
| HD                                                             | 1700 | - | 1644             | 1965           | 50                           | 1720                           | 2580                            |             |
| ND                                                             | 2600 | - | 2517             | 3008           | 50                           | 2620                           | 2882                            | ATV6L0M26Q6 |
| HD                                                             | 2100 | - | 2030             | 2426           | 50                           | 2120                           | 3180                            |             |

<sup>(1)</sup> Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.<sup>(2)</sup> These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual).

<sup>(3)</sup> Typical value for the indicated motor power and for the maximum prospective line Isc.<sup>(4)</sup> APM-L architecture is ready for 12-pulse supply, which allows a THDi ≤ 9%.



## Variable speed drives

Altivar Process Modular

Modular Liquid-cooled drives

Three-phase supply voltage: 690 V 50/60 Hz



ATV9L0M22Q6



ATV9L0M26Q6

| 690 V (-15...10%) IP00 Modular Liquid-cooled drives <sup>(1)</sup>        |      |   |                             |                |                              |                                           |                                 |             |
|---------------------------------------------------------------------------|------|---|-----------------------------|----------------|------------------------------|-------------------------------------------|---------------------------------|-------------|
| Motor                                                                     |      |   | Line supply                 |                |                              | Altivar Process                           |                                 |             |
| Power indicated on rating plate <sup>(2)</sup>                            |      |   | Line current <sup>(3)</sup> | Apparent power | Maximum prospective line Isc | Maximum continuous current <sup>(2)</sup> | Max. transient current for 60 s | Reference   |
| ND: Normal duty<br>HD: Heavy duty                                         |      |   | 690 V                       | 690 V          |                              |                                           |                                 |             |
| kW                                                                        | HP   |   | A                           | kVA            | kA                           | A                                         | A                               |             |
| Altivar Process Modular Liquid-cooled                                     |      |   |                             |                |                              |                                           |                                 |             |
| THDi ≤ 48% at 100% load in Normal duty with 6-pulse supply <sup>(4)</sup> |      |   |                             |                |                              |                                           |                                 |             |
| ND                                                                        | 200  | - | 218                         | 261            | 50                           | 215                                       | 258                             | ATV9L0C20Q6 |
| HD                                                                        | 160  | - | 184                         | 220            | 50                           | 175                                       | 263                             |             |
| ND                                                                        | 280  | - | 290                         | 347            | 50                           | 308                                       | 370                             | ATV9L0C28Q6 |
| HD                                                                        | 220  | - | 236                         | 282            | 50                           | 240                                       | 360                             |             |
| ND                                                                        | 315  | - | 322                         | 385            | 50                           | 340                                       | 408                             | ATV9L0C31Q6 |
| HD                                                                        | 250  | - | 262                         | 313            | 50                           | 275                                       | 413                             |             |
| ND                                                                        | 400  | - | 399                         | 477            | 50                           | 425                                       | 510                             | ATV9L0C40Q6 |
| HD                                                                        | 315  | - | 322                         | 385            | 50                           | 340                                       | 510                             |             |
| ND                                                                        | 450  | - | 446                         | 533            | 50                           | 480                                       | 576                             | ATV9L0C45Q6 |
| HD                                                                        | 355  | - | 359                         | 429            | 50                           | 384                                       | 576                             |             |
| ND                                                                        | 560  | - | 563                         | 673            | 50                           | 590                                       | 708                             | ATV9L0C56Q6 |
| HD                                                                        | 450  | - | 462                         | 552            | 50                           | 480                                       | 720                             |             |
| ND                                                                        | 710  | - | 700                         | 837            | 50                           | 740                                       | 888                             | ATV9L0C71Q6 |
| HD                                                                        | 560  | - | 563                         | 673            | 50                           | 590                                       | 885                             |             |
| ND                                                                        | 900  | - | 875                         | 1046           | 50                           | 930                                       | 1116                            | ATV9L0C90Q6 |
| HD                                                                        | 710  | - | 700                         | 837            | 50                           | 740                                       | 1110                            |             |
| ND                                                                        | 1200 | - | 1260                        | 1506           | 50                           | 1230                                      | 1476                            | ATV9L0M12Q6 |
| HD                                                                        | 1000 | - | 976                         | 1166           | 50                           | 1030                                      | 1545                            |             |
| ND                                                                        | 1400 | - | 1355                        | 1619           | 50                           | 1425                                      | 1710                            | ATV9L0M14Q6 |
| HD                                                                        | 1100 | - | 1070                        | 1279           | 50                           | 1130                                      | 1695                            |             |
| ND                                                                        | 1600 | - | 1547                        | 1849           | 50                           | 1620                                      | 1944                            | ATV9L0M16Q6 |
| HD                                                                        | 1300 | - | 1262                        | 1508           | 50                           | 1330                                      | 1995                            |             |
| ND                                                                        | 1800 | - | 1740                        | 2080           | 50                           | 1820                                      | 2184                            | ATV9L0M18Q6 |
| HD                                                                        | 1400 | - | 1357                        | 1622           | 50                           | 1425                                      | 2138                            |             |
| ND                                                                        | 2200 | - | 2128                        | 2543           | 50                           | 2220                                      | 2664                            | ATV9L0M22Q6 |
| HD                                                                        | 1700 | - | 1644                        | 1965           | 50                           | 1720                                      | 2580                            |             |
| ND                                                                        | 2600 | - | 2517                        | 3008           | 50                           | 2620                                      | 3144                            | ATV9L0M26Q6 |
| HD                                                                        | 2100 | - | 2030                        | 2426           | 50                           | 2120                                      | 3180                            |             |

(1) Integrated motor chokes allowing a shielded motor cable length up to 300 m/984 ft in category C3.

(2) These values are given for a nominal switching frequency of 2.5 kHz for use in continuous operation.

The switching frequency is adjustable from 2 to 4.9 kHz for all ratings.

Above 2.5 kHz, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.

For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Integration Manual).

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

(4) APM-L architecture is ready for 12-pulse supply, which allows a THDi ≤ 9%.

## Variable speed drives

Altivar Process Modular

Braking units 400 V power supply

Standard drives



MODBUOC16Q4APM

| Braking units 400 V power supply     |      |   |             |              |    |                               |               |        |     |                |
|--------------------------------------|------|---|-------------|--------------|----|-------------------------------|---------------|--------|-----|----------------|
| Drive                                |      |   |             | Braking unit |    |                               |               |        |     |                |
| Nominal power                        |      |   | Reference   | Power rating |    | Minimum resistor value        | Braking power |        |     | Reference      |
| ND: Normal duty<br>HD: Heavy duty    |      |   |             |              |    |                               | Cycle (1)     |        |     |                |
| kW                                   | HP   |   |             | kW           | HP | Ω                             | 1             | 2      | 3   |                |
| 400 V power supply - Standard drives |      |   |             |              |    |                               |               |        |     |                |
| ND                                   | 110  | – | ATV9A0C11Q4 | 160          | –  | 3x 6.7                        | 198           | 116.16 | 75  | MODBUOC16Q4APM |
| HD                                   | 90   | – |             |              |    |                               |               |        |     |                |
| ND                                   | 132  | – | ATV9A0C13Q4 |              |    |                               |               |        |     |                |
| HD                                   | 110  | – |             |              |    |                               |               |        |     |                |
| ND                                   | 160  | – | ATV9A0C16Q4 |              |    |                               |               |        |     |                |
| HD                                   | 132  | – |             |              |    |                               |               |        |     |                |
| ND                                   | 200  | – | ATV9A0C20Q4 | 315          | –  | 3x 3.35                       | 375           | 220    | 130 | MODBUOC31Q4APM |
| HD                                   | 160  | – |             |              |    |                               |               |        |     |                |
| ND                                   | 250  | – | ATV9A0C25Q4 |              |    |                               |               |        |     |                |
| HD                                   | 200  | – |             |              |    |                               |               |        |     |                |
| ND                                   | 315  | – | ATV9A0C31Q4 |              |    |                               |               |        |     |                |
| HD                                   | 250  | – |             |              |    |                               |               |        |     |                |
| ND                                   | 355  | – | ATV9A0C35Q4 | 500          | –  | 3x 2.23                       | 600           | 352    | 225 | MODBUOC50Q4APM |
| HD                                   | 280  | – |             |              |    |                               |               |        |     |                |
| ND                                   | 400  | – | ATV9A0C40Q4 |              |    |                               |               |        |     |                |
| HD                                   | 315  | – |             |              |    |                               |               |        |     |                |
| ND                                   | 450  | – | ATV9A0C45Q4 |              |    |                               |               |        |     |                |
| HD                                   | 355  | – |             |              |    |                               |               |        |     |                |
| ND                                   | 500  | – | ATV9A0C50Q4 |              |    |                               |               |        |     |                |
| HD                                   | 400  | – |             |              |    |                               |               |        |     |                |
| ND                                   | 560  | – | ATV9A0C56Q4 | 630          | –  | 6x 3,35                       | 750           | 440    | 260 | MODBUOC63Q4APM |
| HD                                   | 450  | – |             |              |    |                               |               |        |     |                |
| ND                                   | 630  | – | ATV9A0C63Q4 |              |    |                               |               |        |     |                |
| HD                                   | 500  | – |             |              |    |                               |               |        |     |                |
| ND                                   | 710  | – | ATV9A0C71Q4 | 800          | –  | 6x 2,68<br>ou<br>3x 2,23<br>+ | 945           | 554,4  | 355 | MODBUOC80Q4APM |
| HD                                   | 560  | – |             |              |    |                               |               |        |     |                |
| ND                                   | 800  | – | ATV9A0C80Q4 |              |    |                               |               |        |     |                |
| HD                                   | 630  | – |             |              |    |                               |               |        |     |                |
| ND                                   | 1000 | – | ATV9A0M10Q4 |              |    |                               |               |        |     |                |
| HD                                   | 800  | – |             |              |    |                               |               |        |     |                |

(1) Value of the average power that can be dissipated at 50 °C/122 °F. For a 240 s period:

- Cycle 1: 12 s braking at overload (=5%)
- Cycle 2: 120 s braking at overload (=50%)
- Cycle 3: 240 s continuous braking (=100%)



MODBUOC31Q4APM

| Braking units 400 V power supply (continued)          |      |    |             |              |    |                        |               |        |     |                |
|-------------------------------------------------------|------|----|-------------|--------------|----|------------------------|---------------|--------|-----|----------------|
| Drive                                                 |      |    |             | Braking unit |    |                        |               |        |     |                |
| Nominal power                                         |      |    | Reference   | Power rating |    | Minimum resistor value | Braking power |        |     | Reference      |
| ND: Normal duty<br>HD: Heavy duty                     |      |    |             |              |    |                        | Cycle (1)     |        |     |                |
| kW                                                    |      | HP |             | kW           | HP | Ω                      | 1             | 2      | 3   |                |
| 400 V power supply - Low Harmonic/Regenerative drives |      |    |             |              |    |                        |               |        |     |                |
| ND                                                    | 110  | –  | ATV9B0C11Q4 | 160          | –  | 3x 6.7                 | 198           | 116.16 | 75  | MODBUOC16Q4APM |
| HD                                                    | 90   | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 132  | –  | ATV9B0C13Q4 |              |    |                        |               |        |     |                |
| HD                                                    | 110  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 160  | –  | ATV9B0C16Q4 |              |    |                        |               |        |     |                |
| HD                                                    | 132  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 200  | –  | ATV9B0C20Q4 | 315          | –  | 3x 3.35                | 375           | 220    | 130 | MODBUOC31Q4APM |
| HD                                                    | 160  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 250  | –  | ATV9B0C25Q4 |              |    |                        |               |        |     |                |
| HD                                                    | 200  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 315  | –  | ATV9B0C31Q4 |              |    |                        |               |        |     |                |
| HD                                                    | 250  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 355  | –  | ATV9B0C35Q4 | 500          | –  | 3x 2,23                | 600           | 352    | 225 | MODBUOC50Q4APM |
| HD                                                    | 280  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 400  | –  | ATV9B0C40Q4 |              |    |                        |               |        |     |                |
| HD                                                    | 315  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 450  | –  | ATV9B0C45Q4 |              |    |                        |               |        |     |                |
| HD                                                    | 355  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 500  | –  | ATV9B0C50Q4 |              |    |                        |               |        |     |                |
| HD                                                    | 400  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 560  | –  | ATV9B0C56Q4 |              |    |                        |               |        |     |                |
| HD                                                    | 450  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 630  | –  | ATV9B0C63Q4 |              |    |                        |               |        |     |                |
| HD                                                    | 500  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 710  | –  | ATV9B0C71Q4 |              |    |                        |               |        |     |                |
| HD                                                    | 560  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 800  | –  | ATV9B0C80Q4 |              |    |                        |               |        |     |                |
| HD                                                    | 630  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 1000 | –  | ATV9B0M10Q4 |              |    |                        |               |        |     |                |
| HD                                                    | 800  | –  |             |              |    |                        |               |        |     |                |

(1) Value of the average power that can be dissipated at 50 °C/122 °F. For a 240 s period:

- Cycle 1: 12 s braking at overload (=5%)
- Cycle 2: 120 s braking at overload (=50%)
- Cycle 3: 240 s continuous braking (=100%)



MODBUOC50Q4APM

## Braking units 400 V power supply (continued)

| Drive                                     |      |    |                             | Braking unit |    |                        |               |        |     |                                |
|-------------------------------------------|------|----|-----------------------------|--------------|----|------------------------|---------------|--------|-----|--------------------------------|
| Nominal power                             |      |    | Reference                   | Power rating |    | Minimum resistor value | Braking power |        |     | Reference                      |
| ND: Normal duty<br>HD: Heavy duty         |      |    |                             |              |    |                        | Cycle (1)     |        |     |                                |
|                                           |      |    |                             |              |    |                        | 1             | 2      | 3   |                                |
| kW                                        |      | HP |                             | kW           | HP | Ω                      |               |        |     |                                |
| 400 V power supply - Liquid-cooled drives |      |    |                             |              |    |                        |               |        |     |                                |
| ND                                        | 132  | -  | <a href="#">ATV9L0C13Q4</a> | 160          | –  | 3x 6.7                 | 198           | 116.16 | 75  | <a href="#">MODBUOC16Q4APM</a> |
| HD                                        | 110  | -  |                             |              |    |                        |               |        |     |                                |
| ND                                        | 160  | -  | <a href="#">ATV9L0C16Q4</a> |              |    |                        |               |        |     |                                |
| HD                                        | 132  | -  |                             |              |    |                        |               |        |     |                                |
| ND                                        | 200  | -  | <a href="#">ATV9L0C20Q4</a> | 315          | –  | 3x 3.35                | 375           | 220    | 130 | <a href="#">MODBUOC31Q4APM</a> |
| HD                                        | 160  | -  |                             |              |    |                        |               |        |     |                                |
| ND                                        | 250  | -  | <a href="#">ATV9L0C25Q4</a> |              |    |                        |               |        |     |                                |
| HD                                        | 200  | -  |                             |              |    |                        |               |        |     |                                |
| ND                                        | 315  | -  | <a href="#">ATV9L0C31Q4</a> |              |    |                        |               |        |     |                                |
| HD                                        | 250  | -  |                             |              |    |                        |               |        |     |                                |
| ND                                        | 400  | -  | <a href="#">ATV9L0C40Q4</a> | 500          | –  | 3x 2.23                | 600           | 352    | 225 | <a href="#">MODBUOC50Q4APM</a> |
| HD                                        | 315  | -  |                             |              |    |                        |               |        |     |                                |
| ND                                        | 500  | -  | <a href="#">ATV9L0C50Q4</a> |              |    |                        |               |        |     |                                |
| HD                                        | 400  | -  |                             |              |    |                        |               |        |     |                                |
| ND                                        | 630  | -  | <a href="#">ATV9L0C63Q4</a> | 630          | –  | 6x 3.35                | 750           | 440    | 260 | <a href="#">MODBUOC63Q4APM</a> |
| HD                                        | 500  | -  |                             |              |    |                        |               |        |     |                                |
| ND                                        | 800  | -  | <a href="#">ATV9L0C80Q4</a> | 800          | –  | 6x 2.68                | 945           | 554.4  | 355 | <a href="#">MODBUOC80Q4APM</a> |
| HD                                        | 630  | -  |                             |              |    | or                     |               |        |     |                                |
| ND                                        | 900  | -  | <a href="#">ATV9L0C90Q4</a> |              |    | 3x 2.23                |               |        |     |                                |
| HD                                        | 710  | -  |                             |              |    | +                      |               |        |     |                                |
| ND                                        | 1000 | -  | <a href="#">ATV9L0M10Q4</a> |              |    | 3x 3.35                |               |        |     |                                |
| HD                                        | 800  | -  |                             |              |    |                        |               |        |     |                                |
| ND                                        | 1200 | -  | <a href="#">ATV9L0M12Q4</a> |              |    |                        |               |        |     |                                |
| HD                                        | 1000 | -  |                             |              |    |                        |               |        |     |                                |
| ND                                        | 1500 | -  | <a href="#">ATV9L0M15Q4</a> |              |    |                        |               |        |     |                                |
| HD                                        | 1200 | -  |                             |              |    |                        |               |        |     |                                |
| ND                                        | 1800 | -  | <a href="#">ATV9L0M18Q4</a> |              |    |                        |               |        |     |                                |
| HD                                        | 1400 | -  |                             |              |    |                        |               |        |     |                                |

(1) Value of the average power that can be dissipated at 50 °C/122 °F. For a 240 s period:

- Cycle 1: 12 s braking at overload (=5%)
- Cycle 2: 120 s braking at overload (=50%)
- Cycle 3: 240 s continuous braking (=100%)



MODBUOC16R4APM

| Braking units 440 V power supply     |      |   |             |              |    |                        |               |        |     |                |
|--------------------------------------|------|---|-------------|--------------|----|------------------------|---------------|--------|-----|----------------|
| Drive                                |      |   |             | Braking unit |    |                        |               |        |     |                |
| Nominal power                        |      |   | Reference   | Power rating |    | Minimum resistor value | Braking power |        |     | Reference      |
| ND: Normal duty<br>HD: Heavy duty    |      |   |             |              |    |                        | Cycle (1)     |        |     |                |
| kW                                   | HP   |   |             | kW           | HP | Ω                      | 1             | 2      | 3   |                |
| 440 V power supply - Standard drives |      |   |             |              |    |                        |               |        |     |                |
| ND                                   | 110  | – | ATV9A0C11R4 | 160          | –  | 3x 6.7                 | 198           | 116.16 | 75  | MODBUOC16R4APM |
| HD                                   | 90   | – |             |              |    |                        |               |        |     |                |
| ND                                   | 132  | – | ATV9A0C13R4 |              |    |                        |               |        |     |                |
| HD                                   | 110  | – |             |              |    |                        |               |        |     |                |
| ND                                   | 160  | – | ATV9A0C16R4 |              |    |                        |               |        |     |                |
| HD                                   | 132  | – |             |              |    |                        |               |        |     |                |
| ND                                   | 200  | – | ATV9A0C20R4 | 315          | –  | 3x 3.35                | 375           | 220    | 130 | MODBUOC31R4APM |
| HD                                   | 160  | – |             |              |    |                        |               |        |     |                |
| ND                                   | 250  | – | ATV9A0C25R4 |              |    |                        |               |        |     |                |
| HD                                   | 200  | – |             |              |    |                        |               |        |     |                |
| ND                                   | 315  | – | ATV9A0C31R4 |              |    |                        |               |        |     |                |
| HD                                   | 250  | – |             |              |    |                        |               |        |     |                |
| ND                                   | 355  | – | ATV9A0C35R4 | 500          | –  | 3x 2.23                | 600           | 352    | 225 | MODBUOC50R4APM |
| HD                                   | 280  | – |             |              |    |                        |               |        |     |                |
| ND                                   | 400  | – | ATV9A0C40R4 |              |    |                        |               |        |     |                |
| HD                                   | 315  | – |             |              |    |                        |               |        |     |                |
| ND                                   | 450  | – | ATV9A0C45R4 |              |    |                        |               |        |     |                |
| HD                                   | 355  | – |             |              |    |                        |               |        |     |                |
| ND                                   | 500  | – | ATV9A0C50R4 |              |    |                        |               |        |     |                |
| HD                                   | 400  | – |             |              |    |                        |               |        |     |                |
| ND                                   | 560  | – | ATV9A0C56R4 | 630          | –  | 6x 3.35                | 750           | 440    | 260 | MODBUOC63R4APM |
| HD                                   | 450  | – |             |              |    |                        |               |        |     |                |
| ND                                   | 630  | – | ATV9A0C63R4 |              |    |                        |               |        |     |                |
| HD                                   | 500  | – |             |              |    |                        |               |        |     |                |
| ND                                   | 710  | – | ATV9A0C71R4 | 800          | –  | 6x 2.68                | 945           | 554.4  | 355 | MODBUOC80R4APM |
| HD                                   | 580  | – |             |              |    | or<br>3x 2.23          |               |        |     |                |
| ND                                   | 800  | – | ATV9A0C80R4 |              |    | +                      |               |        |     |                |
| HD                                   | 630  | – |             |              |    | 3x 3.35                |               |        |     |                |
| ND                                   | 1000 | – | ATV9A0M10R4 |              |    |                        |               |        |     |                |
| HD                                   | 800  | – |             |              |    |                        |               |        |     |                |

(1) Value of the average power that can be dissipated at 50 °C/122 °F. For a 240 s period:

- Cycle 1: 12 s braking at overload (=5%)
- Cycle 2: 120 s braking at overload (=50%)
- Cycle 3: 240 s continuous braking (=100%)





MODBUOC31R4APM

| Braking units 440 V power supply (continued)          |      |    |             |              |    |                        |               |        |     |                |
|-------------------------------------------------------|------|----|-------------|--------------|----|------------------------|---------------|--------|-----|----------------|
| Drive                                                 |      |    |             | Braking unit |    |                        |               |        |     |                |
| Nominal power                                         |      |    | Reference   | Power rating |    | Minimum resistor value | Braking power |        |     | Reference      |
| ND: Normal duty<br>HD: Heavy duty                     |      |    |             |              |    |                        | Cycle (1)     |        |     |                |
| kW                                                    |      | HP |             | kW           | HP | Ω                      | 1             | 2      | 3   |                |
| 440 V power supply - Low Harmonic/Regenerative drives |      |    |             |              |    |                        |               |        |     |                |
| ND                                                    | 110  | –  | ATV9B0C11R4 | 160          | –  | 3x 6.7                 | 198           | 116.16 | 75  | MODBUOC16R4APM |
| HD                                                    | 90   | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 132  | –  | ATV9B0C13R4 |              |    |                        |               |        |     |                |
| HD                                                    | 110  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 160  | –  | ATV9B0C16R4 |              |    |                        |               |        |     |                |
| HD                                                    | 132  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 200  | –  | ATV9B0C20R4 | 315          | –  | 3x 3.35                | 375           | 220    | 130 | MODBUOC31R4APM |
| HD                                                    | 160  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 250  | –  | ATV9B0C25R4 |              |    |                        |               |        |     |                |
| HD                                                    | 200  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 315  | –  | ATV9B0C31R4 |              |    |                        |               |        |     |                |
| HD                                                    | 250  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 355  | –  | ATV9B0C35R4 | 500          | –  | 3x 2.23                | 600           | 352    | 225 | MODBUOC50R4APM |
| HD                                                    | 280  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 400  | –  | ATV9B0C40R4 |              |    |                        |               |        |     |                |
| HD                                                    | 315  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 450  | –  | ATV9B0C45R4 |              |    |                        |               |        |     |                |
| HD                                                    | 355  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 500  | –  | ATV9B0C50R4 |              |    |                        |               |        |     |                |
| HD                                                    | 400  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 560  | –  | ATV9B0C56R4 |              |    |                        |               |        |     |                |
| HD                                                    | 450  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 630  | –  | ATV9B0C63R4 |              |    |                        |               |        |     |                |
| HD                                                    | 500  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 710  | –  | ATV9B0C71R4 |              |    |                        |               |        |     |                |
| HD                                                    | 560  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 800  | –  | ATV9B0C80R4 |              |    |                        |               |        |     |                |
| HD                                                    | 630  | –  |             |              |    |                        |               |        |     |                |
| ND                                                    | 1000 | –  | ATV9B0M10R4 |              |    |                        |               |        |     |                |
| HD                                                    | 800  | –  |             |              |    |                        |               |        |     |                |

(1) Value of the average power that can be dissipated at 50 °C/122 °F. For a 240 s period:

- Cycle 1: 12 s braking at overload (=5%)
- Cycle 2: 120 s braking at overload (=50%)
- Cycle 3: 240 s continuous braking (=100%)



MODBUOC50R4APM

| Braking units 440 V power supply (continued) |      |           |                             |              |    |                        |               |        |     |                                |
|----------------------------------------------|------|-----------|-----------------------------|--------------|----|------------------------|---------------|--------|-----|--------------------------------|
| Drive                                        |      |           |                             | Braking unit |    |                        |               |        |     |                                |
| Nominal power                                |      | Reference |                             | Power rating |    | Minimum resistor value | Braking power |        |     | Reference                      |
| ND: Normal duty<br>HD: Heavy duty            |      |           |                             |              |    |                        | Cycle (1)     |        |     |                                |
|                                              |      |           |                             |              |    |                        | 1             | 2      | 3   |                                |
| kW                                           | HP   |           |                             | kW           | HP | Ω                      |               |        |     |                                |
| 440 V power supply - Liquid-cooled drives    |      |           |                             |              |    |                        |               |        |     |                                |
| ND                                           | 132  | -         | <a href="#">ATV9L0C13R4</a> | 160          | –  | 3x 6.7                 | 198           | 116.16 | 75  | <a href="#">MODBUOC16R4APM</a> |
| HD                                           | 110  | -         |                             |              |    |                        |               |        |     |                                |
| ND                                           | 160  | -         | <a href="#">ATV9L0C16R4</a> |              |    |                        |               |        |     |                                |
| HD                                           | 132  | -         |                             |              |    |                        |               |        |     |                                |
| ND                                           | 200  | -         | <a href="#">ATV9L0C20R4</a> | 315          | –  | 3x 3.35                | 375           | 220    | 130 | <a href="#">MODBUOC31R4APM</a> |
| HD                                           | 160  | -         |                             |              |    |                        |               |        |     |                                |
| ND                                           | 250  | -         | <a href="#">ATV9L0C25R4</a> |              |    |                        |               |        |     |                                |
| HD                                           | 200  | -         |                             |              |    |                        |               |        |     |                                |
| ND                                           | 315  | -         | <a href="#">ATV9L0C31R4</a> |              |    |                        |               |        |     |                                |
| HD                                           | 250  | -         |                             |              |    |                        |               |        |     |                                |
| ND                                           | 400  | -         | <a href="#">ATV9L0C40R4</a> | 500          | –  | 3x 2.23                | 600           | 352    | 225 | <a href="#">MODBUOC50R4APM</a> |
| HD                                           | 315  | -         |                             |              |    |                        |               |        |     |                                |
| ND                                           | 500  | -         | <a href="#">ATV9L0C50R4</a> |              |    |                        |               |        |     |                                |
| HD                                           | 400  | -         |                             |              |    |                        |               |        |     |                                |
| ND                                           | 630  | -         | <a href="#">ATV9L0C63R4</a> | 630          | –  | 6x 3.35                | 750           | 440    | 260 | <a href="#">MODBUOC63R4APM</a> |
| HD                                           | 500  | -         |                             |              |    |                        |               |        |     |                                |
| ND                                           | 800  | -         | <a href="#">ATV9L0C80R4</a> | 800          | –  | 6x 2.68                | 945           | 554.4  | 355 | <a href="#">MODBUOC80R4APM</a> |
| HD                                           | 630  | -         |                             |              |    | or<br>3x 2.23          |               |        |     |                                |
| ND                                           | 900  | -         | <a href="#">ATV9L0C90R4</a> |              |    | +                      |               |        |     |                                |
| HD                                           | 710  | -         |                             |              |    | 3x 3.35                |               |        |     |                                |
| ND                                           | 1000 | -         | <a href="#">ATV9L0M10R4</a> |              |    |                        |               |        |     |                                |
| HD                                           | 800  | -         |                             |              |    |                        |               |        |     |                                |
| ND                                           | 1200 | -         | <a href="#">ATV9L0M12R4</a> |              |    |                        |               |        |     |                                |
| HD                                           | 1000 | -         |                             |              |    |                        |               |        |     |                                |
| ND                                           | 1500 | -         | <a href="#">ATV9L0M15R4</a> |              |    |                        |               |        |     |                                |
| HD                                           | 1200 | -         |                             |              |    |                        |               |        |     |                                |
| ND                                           | 1800 | -         | <a href="#">ATV9L0M18R4</a> |              |    |                        |               |        |     |                                |
| HD                                           | 1400 | -         |                             |              |    |                        |               |        |     |                                |

(1) Value of the average power that can be dissipated at 50 °C/122 °F. For a 240 s period:

- Cycle 1: 12 s braking at overload (=5%)
- Cycle 2: 120 s braking at overload (=50%)
- Cycle 3: 240 s continuous braking (=100%)

## Variable speed drives

Altivar Process Modular

Braking units 480 V power supply

Standard drives

ATVWL\_OP10057



MODBUOC80T4APM

| Braking units 480 V power supply     |    |      |             |              |      |                        |               |        |     |                |
|--------------------------------------|----|------|-------------|--------------|------|------------------------|---------------|--------|-----|----------------|
| Drive                                |    |      |             | Braking unit |      |                        |               |        |     |                |
| Nominal power                        |    |      | Reference   | Power rating |      | Minimum resistor value | Braking power |        |     | Reference      |
| ND: Normal duty<br>HD: Heavy duty    |    |      |             |              |      |                        | Cycle (1)     |        |     |                |
|                                      |    |      |             | kW           | HP   | Ω                      | 1             | 2      | 3   |                |
| kW                                   | HP |      |             |              |      |                        |               |        |     |                |
| 480 V power supply - Standard drives |    |      |             |              |      |                        |               |        |     |                |
| ND                                   | –  | 150  | ATV9A0C11T4 | –            | 250  | 3x 6.7                 | 198           | 116.16 | 75  | MODBUOC16T4APM |
| HD                                   | –  | 125  |             |              |      |                        |               |        |     |                |
| ND                                   | –  | 200  | ATV9A0C13T4 |              |      |                        |               |        |     |                |
| HD                                   | –  | 150  |             |              |      |                        |               |        |     |                |
| ND                                   | –  | 250  | ATV9A0C16T4 |              |      |                        |               |        |     |                |
| HD                                   | –  | 200  |             |              |      |                        |               |        |     |                |
| ND                                   | –  | 300  | ATV9A0C20T4 | –            | 500  | 3x 3.35                | 375           | 220    | 130 | MODBUOC31T4APM |
| HD                                   | –  | 250  |             |              |      |                        |               |        |     |                |
| ND                                   | –  | 400  | ATV9A0C25T4 |              |      |                        |               |        |     |                |
| HD                                   | –  | 300  |             |              |      |                        |               |        |     |                |
| ND                                   | –  | 500  | ATV9A0C31T4 |              |      |                        |               |        |     |                |
| HD                                   | –  | 400  |             |              |      |                        |               |        |     |                |
| ND                                   | –  | 550  | ATV9A0C35T4 | –            | 700  | 3x 2.23                | 600           | 352    | 225 | MODBUOC50T4APM |
| HD                                   | –  | 450  |             |              |      |                        |               |        |     |                |
| ND                                   | –  | 600  | ATV9A0C40T4 |              |      |                        |               |        |     |                |
| HD                                   | –  | 500  |             |              |      |                        |               |        |     |                |
| ND                                   | –  | 650  | ATV9A0C45T4 |              |      |                        |               |        |     |                |
| HD                                   | –  | 550  |             |              |      |                        |               |        |     |                |
| ND                                   | –  | 700  | ATV9A0C50T4 |              |      |                        |               |        |     |                |
| HD                                   | –  | 600  |             |              |      |                        |               |        |     |                |
| ND                                   | –  | 800  | ATV9A0C56T4 | –            | 900  | 6x 3.35                | 750           | 440    | 260 | MODBUOC63T4APM |
| HD                                   | –  | 650  |             |              |      |                        |               |        |     |                |
| ND                                   | –  | 900  | ATV9A0C63T4 |              |      |                        |               |        |     |                |
| HD                                   | –  | 700  |             |              |      |                        |               |        |     |                |
| ND                                   | –  | 1000 | ATV9A0C71T4 | –            | 1100 | 6x 2.68                | 945           | 554.4  | 355 | MODBUOC80T4APM |
| HD                                   | –  | 800  |             |              |      | or                     |               |        |     |                |
| ND                                   | –  | 1100 | ATV9A0C80T4 |              |      | 3x 2.23                |               |        |     |                |
| HD                                   | –  | 900  |             |              |      | +                      |               |        |     |                |
|                                      |    |      |             |              |      | 3x 3.35                |               |        |     |                |
| ND                                   | –  | 1400 | ATV9A0M10T4 |              |      |                        |               |        |     |                |
| HD                                   | –  | 1100 |             |              |      |                        |               |        |     |                |

(1) Value of the average power that can be dissipated at 50 °C/122 °F. For a 240 s period:

- Cycle 1: 12 s braking at overload (=5%)
- Cycle 2: 120 s braking at overload (=50%)
- Cycle 3: 240 s continuous braking (=100%)

## Variable speed drives

Altivar Process Modular

Braking units 480 V power supply

Low Harmonic/Regenerative drives



MODBUOC50T4APM

| Braking units 480 V power supply (continued)          |    |      |             |              |     |                        |               |        |     |                |
|-------------------------------------------------------|----|------|-------------|--------------|-----|------------------------|---------------|--------|-----|----------------|
| Drive                                                 |    |      |             | Braking unit |     |                        |               |        |     |                |
| Nominal power                                         |    |      | Reference   | Power rating |     | Minimum resistor value | Braking power |        |     | Reference      |
| ND: Normal duty<br>HD: Heavy duty                     |    |      |             |              |     |                        | Cycle (1)     |        |     |                |
|                                                       |    |      |             |              |     |                        | 1             | 2      | 3   |                |
| kW                                                    | HP |      |             | kW           | HP  | Ω                      |               |        |     |                |
| 480 V power supply - Low Harmonic/Regenerative drives |    |      |             |              |     |                        |               |        |     |                |
| ND                                                    | –  | 150  | ATV9B0C11T4 | –            | 250 | 3x 6.7                 | 198           | 116.16 | 75  | MODBUOC16T4APM |
| HD                                                    | –  | 125  |             |              |     |                        |               |        |     |                |
| ND                                                    | –  | 200  | ATV9B0C13T4 |              |     |                        |               |        |     |                |
| HD                                                    | –  | 150  |             |              |     |                        |               |        |     |                |
| ND                                                    | –  | 250  | ATV9B0C16T4 |              |     |                        |               |        |     |                |
| HD                                                    | –  | 200  |             |              |     |                        |               |        |     |                |
| ND                                                    | –  | 300  | ATV9B0C20T4 | –            | 500 | 3x 3.35                | 375           | 220    | 130 | MODBUOC31T4APM |
| HD                                                    | –  | 250  |             |              |     |                        |               |        |     |                |
| ND                                                    | –  | 400  | ATV9B0C25T4 |              |     |                        |               |        |     |                |
| HD                                                    | –  | 300  |             |              |     |                        |               |        |     |                |
| ND                                                    | –  | 500  | ATV9B0C31T4 |              |     |                        |               |        |     |                |
| HD                                                    | –  | 400  |             |              |     |                        |               |        |     |                |
| ND                                                    | –  | 550  | ATV9B0C35T4 | –            | 700 | 3x 2.23                | 600           | 352    | 225 | MODBUOC50T4APM |
| HD                                                    | –  | 450  |             |              |     |                        |               |        |     |                |
| ND                                                    | –  | 600  | ATV9B0C40T4 |              |     |                        |               |        |     |                |
| HD                                                    | –  | 500  |             |              |     |                        |               |        |     |                |
| ND                                                    | –  | 650  | ATV9B0C45T4 |              |     |                        |               |        |     |                |
| HD                                                    | –  | 550  |             |              |     |                        |               |        |     |                |
| ND                                                    | –  | 700  | ATV9B0C50T4 |              |     |                        |               |        |     |                |
| HD                                                    | –  | 600  |             |              |     |                        |               |        |     |                |
| ND                                                    | –  | 800  | ATV9B0C56T4 |              |     |                        |               |        |     |                |
| HD                                                    | –  | 650  |             |              |     |                        |               |        |     |                |
| ND                                                    | –  | 900  | ATV9B0C63T4 |              |     |                        |               |        |     |                |
| HD                                                    | –  | 700  |             |              |     |                        |               |        |     |                |
| ND                                                    | –  | 1000 | ATV9B0C71T4 |              |     |                        |               |        |     |                |
| HD                                                    | –  | 800  |             |              |     |                        |               |        |     |                |
| ND                                                    | –  | 1100 | ATV9B0C80T4 |              |     |                        |               |        |     |                |
| HD                                                    | –  | 900  |             |              |     |                        |               |        |     |                |
| ND                                                    | –  | 1400 | ATV9B0M10T4 |              |     |                        |               |        |     |                |
| HD                                                    | –  | 1100 |             |              |     |                        |               |        |     |                |

(1) Value of the average power that can be dissipated at 50 °C/122 °F. For a 240 s period:

- Cycle 1: 12 s braking at overload (=5%)
- Cycle 2: 120 s braking at overload (=50%)
- Cycle 3: 240 s continuous braking (=100%)



MODBUOC16T4APM

## Braking units 480 V power supply (continued)

| Drive                                     |   |      |             | Braking unit |      |                        |               |        |     |                |
|-------------------------------------------|---|------|-------------|--------------|------|------------------------|---------------|--------|-----|----------------|
| Nominal power                             |   |      | Reference   | Power rating |      | Minimum resistor value | Braking power |        |     | Reference      |
| ND: Normal duty<br>HD: Heavy duty         |   |      |             |              |      |                        | Cycle (1)     |        |     |                |
|                                           |   |      |             |              |      |                        | 1             | 2      | 3   |                |
| kW                                        |   | HP   |             | kW           | HP   | Ω                      |               |        |     |                |
| 480 V power supply - Liquid-cooled drives |   |      |             |              |      |                        |               |        |     |                |
| ND                                        | - | 200  | ATV9L0C13T4 | –            | 250  | 3x 6.7                 | 198           | 116.16 | 75  | MODBUOC16T4APM |
| HD                                        | - | 150  |             |              |      |                        |               |        |     |                |
| ND                                        | - | 250  | ATV9L0C16T4 |              |      |                        |               |        |     |                |
| HD                                        | - | 200  |             |              |      |                        |               |        |     |                |
| ND                                        | - | 300  | ATV9L0C20T4 | –            | 500  | 3x 3.35                | 375           | 220    | 130 | MODBUOC31T4APM |
| HD                                        | - | 250  |             |              |      |                        |               |        |     |                |
| ND                                        | - | 400  | ATV9L0C25T4 |              |      |                        |               |        |     |                |
| HD                                        | - | 300  |             |              |      |                        |               |        |     |                |
| ND                                        | - | 500  | ATV9L0C31T4 |              |      |                        |               |        |     |                |
| HD                                        | - | 400  |             |              |      |                        |               |        |     |                |
| ND                                        | - | 600  | ATV9L0C40T4 | –            | 700  | 3x 2.23                | 600           | 352    | 225 | MODBUOC50T4APM |
| HD                                        | - | 500  |             |              |      |                        |               |        |     |                |
| ND                                        | - | 700  | ATV9L0C50T4 |              |      |                        |               |        |     |                |
| HD                                        | - | 600  |             |              |      |                        |               |        |     |                |
| ND                                        | - | 900  | ATV9L0C63T4 | –            | 900  | 6x 3.35                | 750           | 440    | 260 | MODBUOC63T4APM |
| HD                                        | - | 700  |             |              |      |                        |               |        |     |                |
| ND                                        | - | 1100 | ATV9L0C80T4 | –            | 1100 | 6x 2.68                | 945           | 554.4  | 355 | MODBUOC80T4APM |
| HD                                        | - | 900  |             |              |      | or                     |               |        |     |                |
| ND                                        | - | 1300 | ATV9L0C90T4 |              |      | 3x 2.23                |               |        |     |                |
| HD                                        | - | 1000 |             |              |      | +                      |               |        |     |                |
| ND                                        | - | 1400 | ATV9L0M10T4 |              |      | 3x 3.35                |               |        |     |                |
| HD                                        | - | 1100 |             |              |      |                        |               |        |     |                |
| ND                                        | - | 1700 | ATV9L0M12T4 |              |      |                        |               |        |     |                |
| HD                                        | - | 1400 |             |              |      |                        |               |        |     |                |
| ND                                        | - | 2200 | ATV9L0M15T4 |              |      |                        |               |        |     |                |
| HD                                        | - | 1700 |             |              |      |                        |               |        |     |                |
| ND                                        | - | 2500 | ATV9L0M18T4 |              |      |                        |               |        |     |                |
| HD                                        | - | 2000 |             |              |      |                        |               |        |     |                |

(1) Value of the average power that can be dissipated at 50 °C/122 °F. For a 240 s period:

- Cycle 1: 12 s braking at overload (=5%)
- Cycle 2: 120 s braking at overload (=50%)
- Cycle 3: 240 s continuous braking (=100%)





MODBUOC40N6APM

| Braking units 500 V power supply          |      |           |             |              |    |                                     |               |       |     |                |
|-------------------------------------------|------|-----------|-------------|--------------|----|-------------------------------------|---------------|-------|-----|----------------|
| Drive                                     |      |           |             | Braking unit |    |                                     |               |       |     |                |
| Nominal power                             |      | Reference |             | Power rating |    | Minimum resistor value              | Braking power |       |     | Reference      |
| ND: Normal duty<br>HD: Heavy duty         |      |           |             |              |    |                                     | Cycle (1)     |       |     |                |
|                                           |      |           |             |              |    |                                     | 1             | 2     | 3   |                |
| kW                                        | HP   |           |             | kW           | HP | Ω                                   |               |       |     |                |
| 500 V power supply - Standard drives      |      |           |             |              |    |                                     |               |       |     |                |
| ND                                        | 75   | –         | ATV9A0C11N6 | 132          | –  | 3x 11                               | 240           | 140.8 | 85  | MODBUOC20N6APM |
| HD                                        | 55   | –         |             |              |    |                                     |               |       |     |                |
| ND                                        | 90   | –         | ATV9A0C13N6 |              |    |                                     |               |       |     |                |
| HD                                        | 75   | –         |             |              |    |                                     |               |       |     |                |
| ND                                        | 110  | –         | ATV9A0C16N6 |              |    |                                     |               |       |     |                |
| HD                                        | 90   | –         |             |              |    |                                     |               |       |     |                |
| ND                                        | 132  | –         | ATV9A0C20N6 |              |    |                                     |               |       |     |                |
| HD                                        | 110  | –         |             |              |    |                                     |               |       |     |                |
| ND                                        | 160  | –         | ATV9A0C25N6 | 280          | –  | 3x 5.5                              | 472.5         | 277.2 | 165 | MODBUOC40N6APM |
| HD                                        | 132  | –         |             |              |    |                                     |               |       |     |                |
| ND                                        | 220  | –         | ATV9A0C31N6 |              |    |                                     |               |       |     |                |
| HD                                        | 160  | –         |             |              |    |                                     |               |       |     |                |
| ND                                        | 280  | –         | ATV9A0C40N6 |              |    |                                     |               |       |     |                |
| HD                                        | 220  | –         |             |              |    |                                     |               |       |     |                |
| ND                                        | 355  | –         | ATV9A0C50N6 | 450          | –  | 3x 3.67                             | 750           | 440   | 285 | MODBUOC63N6APM |
| HD                                        | 280  | –         |             |              |    |                                     |               |       |     |                |
| ND                                        | 450  | –         | ATV9A0C63N6 |              |    |                                     |               |       |     |                |
| HD                                        | 355  | –         |             |              |    |                                     |               |       |     |                |
| ND                                        | 560  | –         | ATV9A0C80N6 | 560          | –  | 6x 5.5                              | 945           | 554.4 | 330 | MODBUOC80N6APM |
| HD                                        | 450  | –         |             |              |    |                                     |               |       |     |                |
| ND                                        | 710  | –         | ATV9A0M10N6 | 710          | –  | 6x 4.4<br>or<br>3x 3.67<br>+ 3x 5.5 | 1200          | 704   | 450 | MODBUOM10N6APM |
| HD                                        | 560  | –         |             |              |    |                                     |               |       |     |                |
| ND                                        | 800  | –         | ATV9A0M12N6 | 800          | –  | 6x 3.67                             | 1500          | 785   | 550 | MODBUOM12N6APM |
| HD                                        | 710  | –         |             |              |    |                                     |               |       |     |                |
| 500 V power supply - Liquid-cooled drives |      |           |             |              |    |                                     |               |       |     |                |
| ND                                        | 132  | -         | ATV9L0C20N6 | 132          | –  | 3x 11                               | 240           | 140.8 | 85  | MODBUOC20N6APM |
| HD                                        | 110  | -         |             |              |    |                                     |               |       |     |                |
| ND                                        | 200  | -         | ATV9L0C28N6 | 280          | –  | 3x 5.5                              | 472.5         | 277.2 | 165 | MODBUOC40N6APM |
| HD                                        | 160  | -         |             |              |    |                                     |               |       |     |                |
| ND                                        | 220  | -         | ATV9L0C31N6 |              |    |                                     |               |       |     |                |
| HD                                        | 180  | -         |             |              |    |                                     |               |       |     |                |
| ND                                        | 250  | -         | ATV9L0C40N6 |              |    |                                     |               |       |     |                |
| HD                                        | 220  | -         |             |              |    |                                     |               |       |     |                |
| ND                                        | 315  | -         | ATV9L0C45N6 | 450          | –  | 3x 3.67                             | 750           | 440   | 285 | MODBUOC63N6APM |
| HD                                        | 250  | -         |             |              |    |                                     |               |       |     |                |
| ND                                        | 400  | -         | ATV9L0C56N6 |              |    |                                     |               |       |     |                |
| HD                                        | 315  | -         |             |              |    |                                     |               |       |     |                |
| ND                                        | 500  | -         | ATV9L0C71N6 | 560          | –  | 6x 5.5                              | 945           | 554.4 | 330 | MODBUOC80N6APM |
| HD                                        | 400  | -         |             |              |    |                                     |               |       |     |                |
| ND                                        | 630  | -         | ATV9L0C90N6 | 710          | –  | 6x 4.4<br>or<br>3x 3.67<br>+ 3x 5.5 | 1200          | 704   | 450 | MODBUOM10N6APM |
| HD                                        | 500  | -         |             |              |    |                                     |               |       |     |                |
| ND                                        | 800  | -         | ATV9L0M12N6 | 800          | –  | 6x 3.67                             | 1500          | 785   | 550 | MODBUOM12N6APM |
| HD                                        | 710  | -         |             |              |    |                                     |               |       |     |                |
| ND                                        | 1000 | -         | ATV9L0M14N6 |              |    |                                     |               |       |     |                |
| HD                                        | 800  | -         |             |              |    |                                     |               |       |     |                |
| ND                                        | 1200 | -         | ATV9L0M16N6 |              |    |                                     |               |       |     |                |
| HD                                        | 900  | -         |             |              |    |                                     |               |       |     |                |
| ND                                        | 1300 | -         | ATV9L0M18N6 |              |    |                                     |               |       |     |                |
| HD                                        | 1000 | -         |             |              |    |                                     |               |       |     |                |
| ND                                        | 1600 | -         | ATV9L0M22N6 |              |    |                                     |               |       |     |                |
| HD                                        | 1200 | -         |             |              |    |                                     |               |       |     |                |
| ND                                        | 1900 | -         | ATV9L0M26N6 |              |    |                                     |               |       |     |                |
| HD                                        | 1500 | -         |             |              |    |                                     |               |       |     |                |

(1) Value of the average power that can be dissipated at 50 °C/122 °F. For a 240 s period:

- Cycle 1: 12 s braking at overload (=5%)
- Cycle 2: 120 s braking at overload (=50%)
- Cycle 3: 240 s continuous braking (=100%)

## Variable speed drives

Altivar Process Modular

Braking units 600 V power supply

Standard and Liquid-cooled drives



MODBUOC40T6APM

| Braking units 600 V power supply          |    |      |             |              |      |                                     |               |       |     |                |  |
|-------------------------------------------|----|------|-------------|--------------|------|-------------------------------------|---------------|-------|-----|----------------|--|
| Drive                                     |    |      |             | Braking unit |      |                                     |               |       |     |                |  |
| Nominal power                             |    |      | Reference   | Power rating |      | Minimum resistor value              | Braking power |       |     | Reference      |  |
| ND: Normal duty<br>HD: Heavy duty         |    |      |             |              |      |                                     | Cycle (1)     |       |     |                |  |
|                                           |    |      |             | 1            |      |                                     | 2             |       | 3   |                |  |
| kW                                        | HP |      |             | kW           | HP   |                                     | Ω             |       |     |                |  |
| 600 V power supply - Standard drives      |    |      |             |              |      |                                     |               |       |     |                |  |
| ND                                        | –  | 125  | ATV9A0C11T6 | –            | 200  | 3x 11                               | 240           | 140.8 | 85  | MODBUOC20T6APM |  |
| HD                                        | –  | 100  |             |              |      |                                     |               |       |     |                |  |
| ND                                        | –  | 150  | ATV9A0C13T6 |              |      |                                     |               |       |     |                |  |
| HD                                        | –  | 125  |             |              |      |                                     |               |       |     |                |  |
| ND                                        | –  | 175  | ATV9A0C16T6 |              |      |                                     |               |       |     |                |  |
| HD                                        | –  | 150  |             |              |      |                                     |               |       |     |                |  |
| ND                                        | –  | 200  | ATV9A0C20T6 |              |      |                                     |               |       |     |                |  |
| HD                                        | –  | 175  |             |              |      |                                     |               |       |     |                |  |
| ND                                        | –  | 250  | ATV9A0C25T6 | –            | 450  | 3x 5.5                              | 472.5         | 277.2 | 165 | MODBUOC40T6APM |  |
| HD                                        | –  | 200  |             |              |      |                                     |               |       |     |                |  |
| ND                                        | –  | 350  | ATV9A0C31T6 |              |      |                                     |               |       |     |                |  |
| HD                                        | –  | 250  |             |              |      |                                     |               |       |     |                |  |
| ND                                        | –  | 450  | ATV9A0C40T6 |              |      |                                     |               |       |     |                |  |
| HD                                        | –  | 350  |             |              |      |                                     |               |       |     |                |  |
| ND                                        | –  | 550  | ATV9A0C50T6 | –            | 650  | 3x 3.67                             | 750           | 440   | 285 | MODBUOC63T6APM |  |
| HD                                        | –  | 450  |             |              |      |                                     |               |       |     |                |  |
| ND                                        | –  | 650  | ATV9A0C63T6 |              |      |                                     |               |       |     |                |  |
| HD                                        | –  | 550  |             |              |      |                                     |               |       |     |                |  |
| ND                                        | –  | 800  | ATV9A0C80T6 | –            | 800  | 6x 5.5                              | 945           | 554.4 | 330 | MODBUOC80T6APM |  |
| HD                                        | –  | 650  |             |              |      |                                     |               |       |     |                |  |
| ND                                        | –  | 1000 | ATV9A0M10T6 | –            | 1000 | 6x 4.4<br>or<br>3x 3.67<br>+ 3x 5.5 | 1200          | 704   | 450 | MODBUOM10T6APM |  |
| HD                                        | –  | 800  |             |              |      |                                     |               |       |     |                |  |
| ND                                        | –  | 1200 | ATV9A0M12T6 | –            | 1200 | 6x 3.67                             | 1500          | 785   | 550 | MODBUOM12T6APM |  |
| HD                                        | –  | 1000 |             |              |      |                                     |               |       |     |                |  |
| 600 V power supply - Liquid-cooled drives |    |      |             |              |      |                                     |               |       |     |                |  |
| ND                                        | -  | 200  | ATV9L0C20T6 | –            | 200  | 3x 11                               | 240           | 140.8 | 85  | MODBUOC20T6APM |  |
| HD                                        | –  | 150  |             |              |      |                                     |               |       |     |                |  |
| ND                                        | -  | 300  | ATV9L0C28T6 | –            | 450  | 3x 5.5                              | 472.5         | 277.2 | 165 | MODBUOC40T6APM |  |
| HD                                        | -  | 200  |             |              |      |                                     |               |       |     |                |  |
| ND                                        | -  | 350  | ATV9L0C31T6 |              |      |                                     |               |       |     |                |  |
| HD                                        | -  | 250  |             |              |      |                                     |               |       |     |                |  |
| ND                                        | -  | 450  | ATV9L0C40T6 |              |      |                                     |               |       |     |                |  |
| HD                                        | -  | 350  |             |              |      |                                     |               |       |     |                |  |
| ND                                        | -  | 500  | ATV9L0C45T6 | –            | 650  | 3x 3.67                             | 750           | 440   | 285 | MODBUOC63T6APM |  |
| HD                                        | -  | 400  |             |              |      |                                     |               |       |     |                |  |
| ND                                        | -  | 600  | ATV9L0C56T6 |              |      |                                     |               |       |     |                |  |
| HD                                        | -  | 500  |             |              |      |                                     |               |       |     |                |  |
| ND                                        | -  | 700  | ATV9L0C71T6 | –            | 800  | 6x 5.5                              | 945           | 554.4 | 330 | MODBUOC80T6APM |  |
| HD                                        | -  | 600  |             |              |      |                                     |               |       |     |                |  |
| ND                                        | -  | 900  | ATV9L0C90T6 | –            | 1000 | 6x 4.4<br>or<br>3x 3.67<br>+ 3x 5.5 | 1200          | 704   | 450 | MODBUOM10T6APM |  |
| HD                                        | -  | 700  |             |              |      |                                     |               |       |     |                |  |
| ND                                        | -  | 1200 | ATV9L0M12T6 | –            | 1200 | 6x 3.67                             | 1500          | 785   | 550 | MODBUOM12T6APM |  |
| HD                                        | -  | 1000 |             |              |      |                                     |               |       |     |                |  |
| ND                                        | -  | 1400 | ATV9L0M14T6 |              |      |                                     |               |       |     |                |  |
| HD                                        | -  | 1100 |             |              |      |                                     |               |       |     |                |  |
| ND                                        | -  | 1600 | ATV9L0M16T6 |              |      |                                     |               |       |     |                |  |
| HD                                        | -  | 1300 |             |              |      |                                     |               |       |     |                |  |
| ND                                        | -  | 1800 | ATV9L0M18T6 |              |      |                                     |               |       |     |                |  |
| HD                                        | -  | 1400 |             |              |      |                                     |               |       |     |                |  |
| ND                                        | -  | 2200 | ATV9L0M22T6 |              |      |                                     |               |       |     |                |  |
| HD                                        | -  | 1700 |             |              |      |                                     |               |       |     |                |  |
| ND                                        | -  | 2600 | ATV9L0M26T6 |              |      |                                     |               |       |     |                |  |
| HD                                        | -  | 2100 |             |              |      |                                     |               |       |     |                |  |

(1) Value of the average power that can be dissipated at 50 °C/122 °F. For a 240 s period:

- Cycle 1: 12 s braking at overload (=5%)
- Cycle 2: 120 s braking at overload (=50%)
- Cycle 3: 240 s continuous braking (=100%)

ATV9L0P19057



MODBUOM12Q6APM

| Braking units 690 V power supply          |      |           |             |              |    |                                        |               |       |     |                |
|-------------------------------------------|------|-----------|-------------|--------------|----|----------------------------------------|---------------|-------|-----|----------------|
| Drive                                     |      |           |             | Braking unit |    |                                        |               |       |     |                |
| Nominal power                             |      | Reference |             | Power rating |    | Minimum resistor value                 | Braking power |       |     | Reference      |
| ND: Normal duty<br>HD: Heavy duty         |      |           |             |              |    |                                        | Cycle (1)     |       |     |                |
|                                           |      |           |             |              |    |                                        | 1             | 2     | 3   |                |
| kW                                        | HP   |           |             | kW           | HP | Ω                                      |               |       |     |                |
| 690 V power supply - Standard drives      |      |           |             |              |    |                                        |               |       |     |                |
| ND                                        | 110  | –         | ATV9A0C11Q6 | 200          | –  | 3x 11                                  | 240           | 140.8 | 85  | MODBUOC20Q6APM |
| HD                                        | 90   | –         |             |              |    |                                        |               |       |     |                |
| ND                                        | 132  | –         | ATV9A0C13Q6 |              |    |                                        |               |       |     |                |
| HD                                        | 110  | –         |             |              |    |                                        |               |       |     |                |
| ND                                        | 160  | –         | ATV9A0C16Q6 |              |    |                                        |               |       |     |                |
| HD                                        | 132  | –         |             |              |    |                                        |               |       |     |                |
| ND                                        | 200  | –         | ATV9A0C20Q6 |              |    |                                        |               |       |     |                |
| HD                                        | 160  | –         |             |              |    |                                        |               |       |     |                |
| ND                                        | 250  | –         | ATV9A0C25Q6 | 400          | –  | 3x 5.5                                 | 472.5         | 277.2 | 165 | MODBUOC40Q6APM |
| HD                                        | 200  | –         |             |              |    |                                        |               |       |     |                |
| ND                                        | 315  | –         | ATV9A0C31Q6 |              |    |                                        |               |       |     |                |
| HD                                        | 250  | –         |             |              |    |                                        |               |       |     |                |
| ND                                        | 400  | –         | ATV9A0C40Q6 |              |    |                                        |               |       |     |                |
| HD                                        | 315  | –         |             |              |    |                                        |               |       |     |                |
| ND                                        | 500  | –         | ATV9A0C50Q6 | 630          | –  | 3x 3.67                                | 750           | 440   | 285 | MODBUOC63Q6APM |
| HD                                        | 400  | –         |             |              |    |                                        |               |       |     |                |
| ND                                        | 630  | –         | ATV9A0C63Q6 |              |    |                                        |               |       |     |                |
| HD                                        | 500  | –         |             |              |    |                                        |               |       |     |                |
| ND                                        | 800  | –         | ATV9A0C80Q6 | 800          | –  | 6x 5.5                                 | 945           | 554.4 | 330 | MODBUOC80Q6APM |
| HD                                        | 630  | –         |             |              |    |                                        |               |       |     |                |
| ND                                        | 1000 | –         | ATV9A0M10Q6 | 1000         | –  | 6x 4.4<br>or<br>3x 3.67<br>+<br>3x 5.5 | 1200          | 704   | 450 | MODBUOM10Q6APM |
| HD                                        | 800  | –         |             |              |    |                                        |               |       |     |                |
| ND                                        | 1200 | –         | ATV9A0M12Q6 | 1200         | –  | 6x 3.67                                | 1500          | 785   | 550 | MODBUOM12Q6APM |
| HD                                        | 1000 | –         |             |              |    |                                        |               |       |     |                |
| 690 V power supply - Liquid-cooled drives |      |           |             |              |    |                                        |               |       |     |                |
| ND                                        | 200  | -         | ATV9L0C20Q6 | 200          | –  | 3x 11                                  | 240           | 140.8 | 85  | MODBUOC20Q6APM |
| HD                                        | 160  | -         |             |              |    |                                        |               |       |     |                |
| ND                                        | 280  | -         | ATV9L0C28Q6 | 400          | –  | 3x 5.5                                 | 472.5         | 277.2 | 165 | MODBUOC40Q6APM |
| HD                                        | 220  | -         |             |              |    |                                        |               |       |     |                |
| ND                                        | 315  | -         | ATV9L0C31Q6 |              |    |                                        |               |       |     |                |
| HD                                        | 250  | -         |             |              |    |                                        |               |       |     |                |
| ND                                        | 400  | -         | ATV9L0C40Q6 |              |    |                                        |               |       |     |                |
| HD                                        | 315  | -         |             |              |    |                                        |               |       |     |                |
| ND                                        | 450  | -         | ATV9L0C45Q6 | 630          | –  | 3x 3.67                                | 750           | 440   | 285 | MODBUOC63Q6APM |
| HD                                        | 355  | -         |             |              |    |                                        |               |       |     |                |
| ND                                        | 560  | -         | ATV9L0C56Q6 |              |    |                                        |               |       |     |                |
| HD                                        | 450  | -         |             |              |    |                                        |               |       |     |                |
| ND                                        | 710  | -         | ATV9L0C71Q6 | 800          | –  | 6x 5.5                                 | 945           | 554.4 | 330 | MODBUOC80Q6APM |
| HD                                        | 560  | -         |             |              |    |                                        |               |       |     |                |
| ND                                        | 900  | -         | ATV9L0C90Q6 | 1000         | –  | 6x 4.4<br>or<br>3x 3.67<br>+<br>3x 5.5 | 1200          | 704   | 450 | MODBUOM10Q6APM |
| HD                                        | 710  | -         |             |              |    |                                        |               |       |     |                |
| ND                                        | 1200 | -         | ATV9L0M12Q6 | 1200         | –  | 6x 3.67                                | 1500          | 785   | 550 | MODBUOM12Q6APM |
| HD                                        | 1000 | -         |             |              |    |                                        |               |       |     |                |
| ND                                        | 1400 | -         | ATV9L0M14Q6 |              |    |                                        |               |       |     |                |
| HD                                        | 1100 | -         |             |              |    |                                        |               |       |     |                |
| ND                                        | 1600 | -         | ATV9L0M16Q6 |              |    |                                        |               |       |     |                |
| HD                                        | 1300 | -         |             |              |    |                                        |               |       |     |                |
| ND                                        | 1800 | -         | ATV9L0M18Q6 |              |    |                                        |               |       |     |                |
| HD                                        | 1400 | -         |             |              |    |                                        |               |       |     |                |
| ND                                        | 2200 | -         | ATV9L0M22Q6 |              |    |                                        |               |       |     |                |
| HD                                        | 1700 | -         |             |              |    |                                        |               |       |     |                |
| ND                                        | 2600 | -         | ATV9L0M26Q6 |              |    |                                        |               |       |     |                |
| HD                                        | 2100 | -         |             |              |    |                                        |               |       |     |                |

(1) Value of the average power that can be dissipated at 50 °C/122 °F. For a 240 s period:

- Cycle 1: 12 s braking at overload (=5%)
- Cycle 2: 120 s braking at overload (=50%)
- Cycle 3: 240 s continuous braking (=100%)

Variable speed drives  
Altivar Process Modular  
Standard architectures without braking unit  
380...480 V power supply

| Table showing possible combinations to create architectures                       |           |                           |                                                                              |                   |               |                                            |                 |                 |                   |
|-----------------------------------------------------------------------------------|-----------|---------------------------|------------------------------------------------------------------------------|-------------------|---------------|--------------------------------------------|-----------------|-----------------|-------------------|
| Motor (ND/HD)                                                                     |           | Drive<br>ATV6/ATV9<br>(1) | Control units                                                                | Power modules     | Front covers  | Cabinets for IP 20 up to IP 54 integration |                 |                 |                   |
| ND: Normal duty                                                                   |           |                           |                                                                              |                   |               | 400 mm<br>width                            | 600 mm<br>width | 800 mm<br>width | 1,000 mm<br>width |
| HD: Heavy duty                                                                    |           |                           |                                                                              |                   |               |                                            |                 |                 |                   |
| kW                                                                                | HP        |                           |                                                                              |                   |               |                                            |                 |                 |                   |
| Standard drives three-phase supply voltage: 380...480 V 50/60 Hz                  |           |                           |                                                                              |                   |               |                                            |                 |                 |                   |
| 110/90                                                                            | 150/125   | ATV●A0C11●4               | 1 x APM6A0CTLN401<br>(ATV6A0)<br><br>or<br><br>1 x APM9A0CTLN401<br>(ATV9A0) | 1 x APM1A0C16N401 | —             | 1                                          | —               | —               | —                 |
| 132/110                                                                           | 200/150   | ATV●A0C13●4               |                                                                              | 2 x APM1A0C16N401 | 1 x VW3A97A01 | —                                          | 1               | —               | —                 |
| 160/132                                                                           | 250/200   | ATV●A0C16●4               |                                                                              |                   |               |                                            |                 |                 |                   |
| 200/160                                                                           | 300/250   | ATV●A0C20●4               |                                                                              | 3 x APM1A0C16N401 | 2 x VW3A97A01 | —                                          | —               | 1               | —                 |
| 250/200                                                                           | 400/300   | ATV●A0C25●4               |                                                                              |                   |               |                                            |                 |                 |                   |
| 315/250                                                                           | 500/400   | ATV●A0C31●4               |                                                                              |                   |               |                                            |                 |                 |                   |
| 355/280                                                                           | 550/450   | ATV●A0C35●4               |                                                                              | 4 x APM1A0C16N401 | 3 x VW3A97A01 | —                                          | 2               | —               | —                 |
| 400/315                                                                           | 600/500   | ATV●A0C40●4               |                                                                              |                   |               |                                            |                 |                 |                   |
| 450/355                                                                           | 650/550   | ATV●A0C45●4               |                                                                              |                   |               |                                            |                 |                 |                   |
| 500/400                                                                           | 700/600   | ATV●A0C50●4               |                                                                              |                   |               |                                            |                 |                 |                   |
| 560/450                                                                           | 800/650   | ATV●A0C56●4               | 5 x APM1A0C16N401                                                            | 4 x VW3A97A01     | —             | 1                                          | 1               | —               |                   |
| 630/500                                                                           | 900/700   | ATV●A0C63●4               |                                                                              |                   |               |                                            |                 |                 |                   |
| 710/560                                                                           | 1000/800  | ATV●A0C71●4               | 6 x APM1A0C16N401                                                            | 5 x VW3A97A01     | —             | —                                          | 2               | —               |                   |
| 800/630                                                                           | 1100/900  | ATV●A0C80●4               |                                                                              |                   |               |                                            |                 |                 |                   |
| 1000/800                                                                          | 1400/1100 | ATV●A0M10●4               |                                                                              |                   |               |                                            |                 |                 |                   |
| Low Harmonic/Regenerative drives three-phase supply voltage: 380...480 V 50/60 Hz |           |                           |                                                                              |                   |               |                                            |                 |                 |                   |
| 110/90                                                                            | 150/125   | ATV●B0C11●4               | 1 x APM6B0CTLN401<br>(ATV6B0)<br><br>or<br><br>1 x APM9B0CTLN401<br>(ATV9B0) | 1 x APM1B0C16N4   | —             | —                                          | 1               | —               | —                 |
| 132/110                                                                           | 200/150   | ATV●B0C13●4               |                                                                              | 2 x APM1B0C16N4   | 1 x VW3A97B01 | —                                          | —               | —               | 1                 |
| 160/132                                                                           | 250/200   | ATV●B0C16●4               |                                                                              |                   |               |                                            |                 |                 |                   |
| 200/160                                                                           | 300/250   | ATV●B0C20●4               |                                                                              | 3 x APM1B0C16N4   | 2 x VW3A97B01 | —                                          | 1               | —               | 1                 |
| 250/200                                                                           | 400/300   | ATV●B0C25●4               |                                                                              |                   |               |                                            |                 |                 |                   |
| 315/250                                                                           | 500/400   | ATV●B0C31●4               |                                                                              |                   |               |                                            |                 |                 |                   |
| 355/280                                                                           | 550/450   | ATV●B0C35●4               |                                                                              | 4 x APM1B0C16N4   | 3 x VW3A97B01 | —                                          | —               | —               | 2                 |
| 400/315                                                                           | 600/500   | ATV●B0C40●4               |                                                                              |                   |               |                                            |                 |                 |                   |
| 450/355                                                                           | 650/550   | ATV●B0C45●4               |                                                                              |                   |               |                                            |                 |                 |                   |
| 500/400                                                                           | 700/600   | ATV●B0C50●4               |                                                                              |                   |               |                                            |                 |                 |                   |
| 560/450                                                                           | 800/650   | ATV●B0C56●4               | 5 x APM1B0C16N4                                                              | 4 x VW3A97B01     | —             | 1                                          | —               | 2               |                   |
| 630/500                                                                           | 900/700   | ATV●B0C63●4               |                                                                              |                   |               |                                            |                 |                 |                   |
| 710/560                                                                           | 1000/800  | ATV●B0C71●4               | 6 x APM1B0C16N4                                                              | 5 x VW3A97B01     | —             | 2                                          | —               | 2               |                   |
| 800/630                                                                           | 1100/900  | ATV●B0C80●4               |                                                                              |                   |               |                                            |                 |                 |                   |
| 1000/800                                                                          | 1400/1100 | ATV●B0M10●4               |                                                                              |                   |               |                                            |                 |                 |                   |
| Pages                                                                             |           | 36                        | 20                                                                           | 20                | 21            | (2) (3)                                    |                 |                 |                   |

(1) Replace "●4" with "Q4" for 400V, "R4" for 440V, and "T4" for 480V power supply.  
(2) These cabinet recommendations are for standard integration. For flexible solutions, please contact your Schneider Electric supplier.  
(3) Cabinets must have a minimum depth of 600 mm/23.6 in., and a minimum height of:  
■ 2,150 mm/84.6 in. (including the roof-top extension) for IP20/21/23/40/41/43 standard cabinet integration  
■ 2,350 mm/92.5 in. (including the plinth and roof-top extension) for IP54 standard cabinet integration

Variable speed drives  
Altivar Process Modular  
Standard architectures without braking unit  
500...690 V power supply

| Table showing possible combinations to create architectures                       |           |                           |                                                                          |                 |               |                                               |                 |                 |                   |
|-----------------------------------------------------------------------------------|-----------|---------------------------|--------------------------------------------------------------------------|-----------------|---------------|-----------------------------------------------|-----------------|-----------------|-------------------|
| Motor (ND/HD)                                                                     |           | Drive<br>ATV6/ATV9<br>(1) | Control units                                                            | Power modules   | Front covers  | Cabinets for IP 20 up to IP 54<br>integration |                 |                 |                   |
| ND: Normal duty                                                                   |           |                           |                                                                          |                 |               | 400 mm<br>width                               | 600 mm<br>width | 800 mm<br>width | 1,000 mm<br>width |
| HD: Heavy duty                                                                    |           |                           |                                                                          |                 |               |                                               |                 |                 |                   |
| kW                                                                                | HP        |                           |                                                                          |                 |               |                                               |                 |                 |                   |
| Standard drives three-phase supply voltage: 500...690 V 50/60 Hz                  |           |                           |                                                                          |                 |               |                                               |                 |                 |                   |
| 75/55 (500V)<br>110/90 (690V)                                                     | 125/100   | ATV●A0C11●6               | 1 x APM6A0CTLY6<br>(ATV6A0)<br><br>or<br><br>1 x APM9A0CTLY6<br>(ATV9A0) | 1 x APM1A0C20Y6 | —             | 1                                             | —               | —               | —                 |
| 90/75 (500V)<br>132/110 (690V)                                                    | 150/125   | ATV●A0C13●6               |                                                                          | 2 x APM1A0C20Y6 | 1 x VW3A97A01 | —                                             | 1               | —               | —                 |
| 110/90 (500V)<br>160/132 (690V)                                                   | 175/150   | ATV●A0C16●6               |                                                                          |                 |               |                                               |                 |                 |                   |
| 132/110 (500V)<br>200/160 (690)                                                   | 200/175   | ATV●A0C20●6               |                                                                          | 3 x APM1A0C20Y6 | 2 x VW3A97A01 | —                                             | —               | 1               | —                 |
| 160/132 (500V)<br>250/200 (690V)                                                  | 250/200   | ATV●A0C25●6               |                                                                          |                 |               |                                               |                 |                 |                   |
| 220/160 (500V)<br>315/250 (690V)                                                  | 350/250   | ATV●A0C31●6               |                                                                          |                 |               |                                               |                 |                 |                   |
| 280/220 (500V)<br>400/315 (690V)                                                  | 450/350   | ATV●A0C40●6               |                                                                          | 4 x APM1A0C20Y6 | 3 x VW3A97A01 | —                                             | 2               | —               | —                 |
| 355/280 (500V)<br>500/400 (690V)                                                  | 550/450   | ATV●A0C50●6               |                                                                          |                 |               |                                               |                 |                 |                   |
| 450/355 (500V)<br>630/500 (690V)                                                  | 650/550   | ATV●A0C63●6               |                                                                          |                 |               |                                               |                 |                 |                   |
| 560/450 (500V)<br>800/630 (690V)                                                  | 800/650   | ATV●A0C80●6               |                                                                          | 5 x APM1A0C20Y6 | 4 x VW3A97A01 | —                                             | 1               | 1               | —                 |
| 710/560 (500V)<br>1000/800 (690V)                                                 | 1000/800  | ATV●A0M10●6               |                                                                          |                 |               |                                               |                 |                 |                   |
| 800/710 (500V)<br>1200/1000 (690V)                                                | 1200/1000 | ATV●A0M12●6               |                                                                          | 6 x APM1A0C20Y6 | 5 x VW3A97A01 | —                                             | —               | 2               | —                 |
| Low Harmonic/Regenerative drives three-phase supply voltage: 500...690 V 50/60 Hz |           |                           |                                                                          |                 |               |                                               |                 |                 |                   |
| 75/55 (500V)<br>110/90 (690V)                                                     | 125/100   | ATV●B0C11●6               | 1 x APM6B0CTLY6<br>(ATV6B0)<br><br>or<br><br>1 x APM9B0CTLY6<br>(ATV9B0) | 1 x APM1B0C20Y6 | —             | —                                             | 1               | —               | —                 |
| 90/75 (500V)<br>132/110 (690V)                                                    | 150/125   | ATV●B0C13●6               |                                                                          | 2 x APM1B0C20Y6 | 1 x VW3A97B01 | —                                             | —               | —               | 1                 |
| 110/90 (500V)<br>160/132 (690V)                                                   | 175/150   | ATV●B0C16●6               |                                                                          |                 |               |                                               |                 |                 |                   |
| 132/110 (500V)<br>200/160 (690)                                                   | 200/175   | ATV●B0C20●6               |                                                                          | 3 x APM1B0C20Y6 | 2 x VW3A97B01 | —                                             | 1               | —               | 1                 |
| 160/132 (500V)<br>250/200 (690V)                                                  | 250/200   | ATV●B0C25●6               |                                                                          |                 |               |                                               |                 |                 |                   |
| 220/160 (500V)<br>315/250 (690V)                                                  | 350/250   | ATV●B0C31●6               |                                                                          |                 |               |                                               |                 |                 |                   |
| 280/220 (500V)<br>400/315 (690V)                                                  | 450/350   | ATV●B0C40●6               |                                                                          | 4 x APM1B0C20Y6 | 3 x VW3A97B01 | —                                             | —               | —               | 2                 |
| 355/280 (500V)<br>500/400 (690V)                                                  | 550/450   | ATV●B0C50●6               |                                                                          |                 |               |                                               |                 |                 |                   |
| 450/355 (500V)<br>630/500 (690V)                                                  | 650/550   | ATV●B0C63●6               |                                                                          |                 |               |                                               |                 |                 |                   |
| 560/450 (500V)<br>800/630 (690V)                                                  | 800/650   | ATV●B0C80●6               |                                                                          | 5 x APM1B0C20Y6 | 4 x VW3A97B01 | —                                             | 1               | —               | 2                 |
| 710/560 (500V)<br>1000/800 (690V)                                                 | 1000/800  | ATV●B0M10●6               |                                                                          |                 |               |                                               |                 |                 |                   |
| 800/710 (500V)<br>1200/1000 (690V)                                                | 1200/1000 | ATV●B0M12●6               |                                                                          | 6 x APM1B0C20Y6 | 5 x VW3A97B01 | —                                             | —               | —               | 3                 |
| Pages                                                                             |           | 36                        | 20                                                                       | 20              | 21            | (2) (3)                                       |                 |                 |                   |

(1) Replace "●6" with "N6" for 500V, "Q6" for 600V, and "Y6" for 690V power supply.  
(2) These cabinet recommendations are for standard integration. For flexible solutions, please contact your Schneider Electric supplier.  
(3) Cabinets must have a minimum depth of 600 mm/23.6 in., and a minimum height of:  
■ 2,150 mm/84.6 in. (including the roof-top extension) for IP20/21/23/40/41/43 standard cabinet integration  
■ 2,350 mm/92.5 in. (including the plinth and roof-top extension) for IP54 standard cabinet integration

| Table showing possible combinations to create architectures                       |    |                                 |                                 |                            |                                |                                                                   |              |              |                |
|-----------------------------------------------------------------------------------|----|---------------------------------|---------------------------------|----------------------------|--------------------------------|-------------------------------------------------------------------|--------------|--------------|----------------|
| Motor                                                                             |    | Braking units                   | Control units for braking units | Braking unit power modules | Front covers for braking units | Cabinets (drive + braking unit) for IP 20 up to IP 54 integration |              |              |                |
| ND: Normal duty                                                                   |    |                                 |                                 |                            |                                | 400 mm width                                                      | 600 mm width | 800 mm width | 1,000 mm width |
| HD: Heavy duty                                                                    |    |                                 |                                 |                            |                                |                                                                   |              |              |                |
| kW                                                                                | HP |                                 |                                 |                            |                                |                                                                   |              |              |                |
| Standard drives three-phase supply voltage: 380...480 V 50/60 Hz                  |    |                                 |                                 |                            |                                |                                                                   |              |              |                |
| ND 110...160                                                                      |    | 1 x MODBUOC16Q4APM              | 1 x APMBC0CTLN4                 | 1 x APMBC0C50N4            | —                              | —                                                                 | 1            | —            | —              |
| HD 90...132                                                                       |    | 1 x MODBUOC16R4APM              |                                 |                            |                                |                                                                   |              |              |                |
|                                                                                   |    | ND 150...250<br>HD 125...200    |                                 |                            |                                |                                                                   |              |              |                |
| ND 200...315                                                                      |    | 1 x MODBUOC31Q4APM              | 1 x APMBC0CTLN4                 | 1 x APMBC0C50N4            | —                              | —                                                                 | —            | 1            | —              |
| HD 160...250                                                                      |    | 1 x MODBUOC31R4APM              |                                 |                            |                                |                                                                   |              |              |                |
|                                                                                   |    | ND 300...500<br>HD 250...400    |                                 |                            |                                |                                                                   |              |              |                |
| ND 355...500                                                                      |    | 1 x MODBUOC50Q4APM              | 1 x APMBC0CTLN4                 | 1 x APMBC0C50N4            | —                              | 1                                                                 | —            | 1            | —              |
| HD 280...400                                                                      |    | 1 x MODBUOC50R4APM              |                                 |                            |                                |                                                                   |              |              |                |
|                                                                                   |    | ND 550...700<br>HD 450...600    |                                 |                            |                                |                                                                   |              |              |                |
| ND 560...630                                                                      |    | 2 x MODBUOC63Q4APM              | 1 x APMBC0CTLN4                 | 2 x APMBC0C50N4            | 1 x VW3A97A01                  | —                                                                 | —            | 2            | —              |
| HD 450...500                                                                      |    | 2 x MODBUOC63R4APM              |                                 |                            |                                |                                                                   |              |              |                |
|                                                                                   |    | ND 800...900<br>HD 650...700    |                                 |                            |                                |                                                                   |              |              |                |
| ND 710...1000                                                                     |    | 2 x MODBUOC80Q4APM              | 1 x APMBC0CTLN4                 | 2 x APMBC0C50N4            | 1 x VW3A97A01                  | —                                                                 | 2            | 1            | —              |
| HD 560...800                                                                      |    | 2 x MODBUOC80R4APM              |                                 |                            |                                |                                                                   |              |              |                |
|                                                                                   |    | ND 1000...1400<br>HD 800...1100 |                                 |                            |                                |                                                                   |              |              |                |
| Low Harmonic/Regenerative drives three-phase supply voltage: 380...480 V 50/60 Hz |    |                                 |                                 |                            |                                |                                                                   |              |              |                |
| ND 110...160                                                                      |    | 1 x MODBUOC16Q4APM              | 1 x APMBC0CTLN4                 | 1 x APMBC0C50N4            | —                              | 1                                                                 | 1            | —            | —              |
| HD 90...132                                                                       |    | 1 x MODBUOC16R4APM              |                                 |                            |                                |                                                                   |              |              |                |
|                                                                                   |    | ND 150...250<br>HD 125...200    |                                 |                            |                                |                                                                   |              |              |                |
| ND 200...315                                                                      |    | 1 x MODBUOC31Q4APM              | 1 x APMBC0CTLN4                 | 1 x APMBC0C50N4            | —                              | 1                                                                 | —            | —            | 1              |
| HD 160...250                                                                      |    | 1 x MODBUOC31R4APM              |                                 |                            |                                |                                                                   |              |              |                |
|                                                                                   |    | ND 300...500<br>HD 250...400    |                                 |                            |                                |                                                                   |              |              |                |
| ND 355...500                                                                      |    | 1 x MODBUOC50Q4APM              | 1 x APMBC0CTLN4                 | 1 x APMBC0C50N4            | —                              | 1                                                                 | 1            | —            | 1              |
| HD 280...400                                                                      |    | 1 x MODBUOC50R4APM              |                                 |                            |                                |                                                                   |              |              |                |
|                                                                                   |    | ND 550...700<br>HD 450...600    |                                 |                            |                                |                                                                   |              |              |                |
| ND 560...630                                                                      |    | 1 x MODBUOC50Q4APM              | 1 x APMBC0CTLN4                 | 1 x APMBC0C50N4            | —                              | 1                                                                 | —            | —            | 2              |
| HD 450...500                                                                      |    | 1 x MODBUOC50R4APM              |                                 |                            |                                |                                                                   |              |              |                |
|                                                                                   |    | ND 800...900<br>HD 650...700    |                                 |                            |                                |                                                                   |              |              |                |
| ND 710...1000                                                                     |    | 1 x MODBUOC50Q4APM              | 1 x APMBC0CTLN4                 | 1 x APMBC0C50N4            | —                              | 1                                                                 | 1            | —            | 2              |
| HD 560...800                                                                      |    | 1 x MODBUOC50R4APM              |                                 |                            |                                |                                                                   |              |              |                |
|                                                                                   |    | ND 1000...1400<br>HD 800...1100 |                                 |                            |                                |                                                                   |              |              |                |
| Pages                                                                             |    | 72                              | 20                              | 20                         | 21                             | (1) (2)                                                           |              |              |                |

(1) These cabinet recommendations are for standard integration. For flexible solutions, please contact your Schneider Electric supplier.  
(2) Cabinets must have a minimum depth of 600 mm/23.6 in., and a minimum height of:  
■ 2,150 mm/84.6 in. (including the roof-top extension) for IP20/21/23/40/41/43 standard cabinet integration  
■ 2,350 mm/92.5 in. (including the plinth and roof-top extension) for IP54 standard cabinet integration

| Table showing possible combinations to create architectures      |    |                              |                                 |                            |                                |                                                                   |              |              |                |
|------------------------------------------------------------------|----|------------------------------|---------------------------------|----------------------------|--------------------------------|-------------------------------------------------------------------|--------------|--------------|----------------|
| Motor                                                            |    | Braking units                | Control units for braking units | Braking unit power modules | Front covers for braking units | Cabinets (drive + braking unit) for IP 20 up to IP 54 integration |              |              |                |
| ND: Normal duty                                                  |    |                              |                                 |                            |                                | 400 mm width                                                      | 600 mm width | 800 mm width | 1,000 mm width |
| HD: Heavy duty                                                   |    |                              |                                 |                            |                                |                                                                   |              |              |                |
| kW                                                               | HP |                              |                                 |                            |                                |                                                                   |              |              |                |
| Standard drives three-phase supply voltage: 500...690 V 50/60 Hz |    |                              |                                 |                            |                                |                                                                   |              |              |                |
| ND 75...132<br>HD 55...110                                       |    | 1 x MODBUOC20N6APM           | 1 x APMBC0CTLY6                 | 1 x APMBC0C63Y6            | –                              | –                                                                 | 1            | –            | –              |
| ND 110...200<br>HD 90...160                                      |    | 1 x MODBUOC20Q6APM           |                                 |                            |                                |                                                                   |              |              |                |
|                                                                  |    | ND 175...200<br>HD 150...175 |                                 |                            |                                |                                                                   |              |              |                |
| ND 160...280<br>HD 132...220                                     |    | 1 x MODBUOC40N6APM           | 1 x APMBC0CTLY6                 | 1 x APMBC0C63Y6            | –                              | –                                                                 | –            | 1            | –              |
| ND 250...400<br>HD 200...315                                     |    | 1 x MODBUOC40Q6APM           |                                 |                            |                                |                                                                   |              |              |                |
|                                                                  |    | ND 250...450<br>HD 200...350 |                                 |                            |                                |                                                                   |              |              |                |
| ND 355...450<br>HD 280...355                                     |    | 1 x MODBUOC63N6APM           | 1 x APMBC0CTLY6                 | 1 x APMBC0C63Y6            | –                              | 1                                                                 | –            | 1            | –              |
| ND 500...630<br>HD 400...500                                     |    | 1 x MODBUOC63Q6APM           |                                 |                            |                                |                                                                   |              |              |                |
|                                                                  |    | ND 550...650<br>HD 450...550 |                                 |                            |                                |                                                                   |              |              |                |
| ND 560<br>HD 450                                                 |    | 2 x MODBUOC80N6APM           | 1 x APMBC0CTLY6                 | 2 x APMBC0C63Y6            | 1 x VW3A97A01                  | –                                                                 | –            | 2            | –              |
| ND 800<br>HD 630                                                 |    | 2 x MODBUOC80Q6APM           |                                 |                            |                                |                                                                   |              |              |                |
|                                                                  |    | ND 800<br>HD 650             |                                 |                            |                                |                                                                   |              |              |                |
| ND 710<br>HD 560                                                 |    | 2 x MODBUOM10N6APM           | 1 x APMBC0CTLY6                 | 2 x APMBC0C63Y6            | 1 x VW3A97A01                  | –                                                                 | 2            | 1            | –              |
| ND 1000<br>HD 800                                                |    | 2 x MODBUOM10Q6APM           |                                 |                            |                                |                                                                   |              |              |                |
|                                                                  |    | ND 1000<br>HD 800            |                                 |                            |                                |                                                                   |              |              |                |
| ND 800<br>HD 710                                                 |    | 2 x MODBUOM12N6APM           | 1 x APMBC0CTLY6                 | 2 x APMBC0C63Y6            | 1 x VW3A97A01                  | –                                                                 | 1            | 2            | –              |
| ND 1200<br>HD 1000                                               |    | 2 x MODBUOM12Q6APM           |                                 |                            |                                |                                                                   |              |              |                |
|                                                                  |    | ND 1200<br>HD 1000           |                                 |                            |                                |                                                                   |              |              |                |
| Pages                                                            |    | 75                           | 20                              | 20                         | 21                             | (1) (2)                                                           |              |              |                |

(1) These cabinet recommendations are for standard integration. For flexible solutions, please contact your Schneider Electric supplier.  
(2) Cabinets must have a minimum depth of 600 mm/23.6 in., and a minimum height of:  
■ 2,150 mm/84.6 in. (including the roof-top extension) for IP20/21/23/40/41/43 standard cabinet integration  
■ 2,350 mm/92.5 in. (including the plinth and roof-top extension) for IP54 standard cabinet integration



Variable speed drives  
Altivar Process Modular  
Reduced height architectures without braking unit

| Table showing possible combinations to create architectures                               |           |                           |                                                                              |                                             |                   |               |                                                  |                    |  |
|-------------------------------------------------------------------------------------------|-----------|---------------------------|------------------------------------------------------------------------------|---------------------------------------------|-------------------|---------------|--------------------------------------------------|--------------------|--|
| Motor (ND/HD)                                                                             |           | Drive<br>ATV6/ATV9<br>(1) | Control units                                                                | Power modules                               | Mains module      | Front covers  | Cabinets for<br>IP 20 up to IP 54<br>integration |                    |  |
| ND: Normal duty                                                                           |           |                           |                                                                              |                                             |                   |               | 600<br>mm<br>width                               | 800<br>mm<br>width |  |
| HD: Heavy duty                                                                            |           |                           |                                                                              |                                             |                   |               |                                                  |                    |  |
| kW                                                                                        | HP        |                           |                                                                              |                                             |                   |               |                                                  |                    |  |
| Standard drives three-phase supply voltage: 380...480 V 50/60 Hz - Reduced Height version |           |                           |                                                                              |                                             |                   |               |                                                  |                    |  |
| 110/90                                                                                    | 150/125   | ATV●A0C11●4               | 1 x APM6A0CTLN401<br>(ATV6A0)<br><br>or<br><br>1 x APM9A0CTLN401<br>(ATV9A0) | 1 x APM1A0C16N4RH                           | 1 x APMCA01LCN4RH | —             | —                                                | 1                  |  |
| 132/110                                                                                   | 200/150   | ATV●A0C13●4               |                                                                              |                                             |                   |               |                                                  |                    |  |
| 160/132                                                                                   | 250/200   | ATV●A0C16●4               |                                                                              |                                             |                   |               |                                                  |                    |  |
| 200/160                                                                                   | 300/250   | ATV●A0C20●4               |                                                                              |                                             |                   |               |                                                  |                    |  |
| 250/200                                                                                   | 400/300   | ATV●A0C25●4               |                                                                              | 2 x APM1A0C16N4RH                           | 1 x APMCA02LCN4RH | 1 x VW3A97A01 | 2                                                | —                  |  |
| 315/250                                                                                   | 500/400   | ATV●A0C31●4               |                                                                              |                                             |                   |               |                                                  |                    |  |
| 355/280                                                                                   | 550/450   | ATV●A0C35●4               |                                                                              | 3 x APM1A0C16N4RH                           | 1 x APMCA03LCN4RH | 2 x VW3A97A01 | 1                                                | 1                  |  |
| 400/315                                                                                   | 600/500   | ATV●A0C40●4               |                                                                              |                                             |                   |               |                                                  |                    |  |
| 450/355                                                                                   | 650/550   | ATV●A0C45●4               |                                                                              |                                             |                   |               |                                                  |                    |  |
| 500/400                                                                                   | 700/600   | ATV●A0C50●4               |                                                                              |                                             |                   |               |                                                  |                    |  |
| 560/450                                                                                   | 800/650   | ATV●A0C56●4               | 4 x APM1A0C16N4RH                                                            | 2 x APMCA02LCN4RH                           | 3 x VW3A97A01     | 4             | —                                                |                    |  |
| 630/500                                                                                   | 900/700   | ATV●A0C63●4               |                                                                              |                                             |                   |               |                                                  |                    |  |
| 710/560                                                                                   | 1000/800  | ATV●A0C71●4               | 5 x APM1A0C16N4RH                                                            | 1 x APMCA02LCN4RH<br>+<br>1 x APMCA03LCN4RH | 4 x VW3A97A01     | 3             | 1                                                |                    |  |
| 800/630                                                                                   | 1100/900  | ATV●A0C80●4               |                                                                              |                                             |                   |               |                                                  |                    |  |
| 1000/800                                                                                  | 1400/1100 | ATV●A0M10●4               | 6 x APM1A0C16N4RH                                                            | 1 x APMCA03LCN4RH<br>+<br>1 x APMCA03LCN4RH | 5 x VW3A97A01     | 2             | 2                                                |                    |  |
| Standard drives three-phase supply voltage: 500...690 V 50/60 Hz - Reduced Height version |           |                           |                                                                              |                                             |                   |               |                                                  |                    |  |
| 75/55 (500V)<br>110/90 (690V)                                                             | 125/100   | ATV●A0C11●6               | 1 x APM6A0CTLY6<br>(ATV6A0)<br><br>or<br><br>1 x APM9A0CTLY6<br>(ATV9A0)     | 1 x APM1A0C20Y6RH                           | 1 x APMCA01LCY6RH | —             | —                                                | 1                  |  |
| 90/75 (500V)<br>132/110 (690V)                                                            | 150/125   | ATV●A0C13●6               |                                                                              |                                             |                   |               |                                                  |                    |  |
| 110/90 (500V)<br>160/132 (690V)                                                           | 175/150   | ATV●A0C16●6               |                                                                              |                                             |                   |               |                                                  |                    |  |
| 132/110 (500V)<br>200/160 (690V)                                                          | 200/175   | ATV●A0C20●6               |                                                                              |                                             |                   |               |                                                  |                    |  |
| 160/132 (500V)<br>250/200 (690V)                                                          | 250/200   | ATV●A0C25●6               |                                                                              | 2 x APM1A0C20Y6RH                           | 1 x APMCA02LCY6RH | 1 x VW3A97A01 | 2                                                | —                  |  |
| 220/160 (500V)<br>315/250 (690V)                                                          | 350/250   | ATV●A0C31●6               |                                                                              |                                             |                   |               |                                                  |                    |  |
| 280/220 (500V)<br>400/315 (690V)                                                          | 450/350   | ATV●A0C40●6               |                                                                              |                                             |                   |               |                                                  |                    |  |
| 355/280 (500V)<br>500/400 (690V)                                                          | 550/450   | ATV●A0C50●6               |                                                                              | 3 x APM1A0C20Y6RH                           | 1 x APMCA03LCY6RH | 2 x VW3A97A01 | 1                                                | 1                  |  |
| 450/355 (500V)<br>630/500 (690V)                                                          | 650/550   | ATV●A0C63●6               |                                                                              |                                             |                   |               |                                                  |                    |  |
| 560/450 (500V)<br>800/630 (690V)                                                          | 800/650   | ATV●A0C80●6               |                                                                              | 4 x APM1A0C20Y6RH                           | 2 x APMCA02LCY6RH | 3 x VW3A97A01 | 4                                                | —                  |  |
| 710/560 (500V)<br>1000/800 (690V)                                                         | 1000/800  | ATV●A0M10●6               | 5 x APM1A0C20Y6RH                                                            | 1 x APMCA02LCY6RH<br>+<br>1 x APMCA03LCY6RH | 4 x VW3A97A01     | 3             | 1                                                |                    |  |
| 800/710 (500V)<br>1200/1000 (690V)                                                        | 1200/1000 | ATV●A0M12●6               | 6 x APM1A0C20Y6RH                                                            | 2 x APMCA03LCY6RH                           | 5 x VW3A97A01     | 2             | 2                                                |                    |  |
| Pages                                                                                     |           | 36                        | 20                                                                           | 20                                          | 21                | 21            | (2) (3)                                          |                    |  |

(1) Replace "●4" with "Q4" for 400V, "R4" for 440V, and "T4" for 480V power supply. Replace "●6" with "N6" for 500V, "Q6" for 600V, and "Y6" for 690V power supply.  
(2) These cabinet recommendations are for standard integration. For flexible solutions, please contact your Schneider Electric supplier.  
(3) Cabinets must have a minimum depth of 600 mm/23.6 in., and a minimum height of:  
■ 2,150 mm/84.6 in. (including the roof-top extension) for IP20/21/23/40/41/43 standard cabinet integration  
■ 2,350 mm/92.5 in. (including the plinth and roof-top extension) for IP54 standard cabinet integration

Variable speed drives  
Altivar Process Modular  
Reduced height architectures with braking unit

| Table showing possible combinations to create architectures                               |                                 |                                          |                                 |                            |                                |                                                                   |              |
|-------------------------------------------------------------------------------------------|---------------------------------|------------------------------------------|---------------------------------|----------------------------|--------------------------------|-------------------------------------------------------------------|--------------|
| Motor                                                                                     |                                 | Braking units                            | Control units for braking units | Braking unit power modules | Front covers for braking units | Cabinets (drive + braking unit) for IP 20 up to IP 54 integration |              |
|                                                                                           |                                 |                                          |                                 |                            |                                | 600 mm width                                                      | 800 mm width |
|                                                                                           |                                 |                                          |                                 |                            |                                |                                                                   |              |
| ND: Normal duty                                                                           |                                 |                                          |                                 |                            |                                |                                                                   |              |
| HD: Heavy duty                                                                            |                                 |                                          |                                 |                            |                                |                                                                   |              |
| kW                                                                                        | HP                              |                                          |                                 |                            |                                |                                                                   |              |
| Standard drives three-phase supply voltage: 380...480 V 50/60 Hz - reduced height version |                                 |                                          |                                 |                            |                                |                                                                   |              |
| ND 110...160<br>HD 90...132                                                               |                                 | 1 x MODBUOC16Q4APM<br>1 x MODBUOC16R4APM | 1 x APMBC0CTLN4                 | 1 x APMBC0C50N4            | —                              | 2                                                                 | —            |
|                                                                                           | ND 150...250<br>HD 125...200    | 1 x MODBUOC16T4APM                       |                                 |                            |                                |                                                                   |              |
| ND 200...315<br>HD 160...250                                                              |                                 | 1 x MODBUOC31Q4APM<br>1 x MODBUOC31R4APM | 1 x APMBC0CTLN4                 | 1 x APMBC0C50N4            | —                              | 1                                                                 | 1            |
|                                                                                           | ND 300...500<br>HD 250...400    | 1 x MODBUOC31T4APM                       |                                 |                            |                                |                                                                   |              |
| ND 355...500<br>HD 280...400                                                              |                                 | 1 x MODBUOC50Q4APM<br>1 x MODBUOC50R4APM | 1 x APMBC0CTLN4                 | 1 x APMBC0C50N4            | —                              | 3                                                                 | —            |
|                                                                                           | ND 550...700<br>HD 450...600    | 1 x MODBUOC50T4APM                       |                                 |                            |                                |                                                                   |              |
| ND 560...630<br>HD 450...500                                                              |                                 | 2 x MODBUOC63Q4APM<br>2 x MODBUOC63R4APM | 1 x APMBC0CTLN4                 | 2 x APMBC0C50N4            | 1 x VW3A97A01                  | 5                                                                 | —            |
|                                                                                           | ND 800...900<br>HD 650...700    | 2 x MODBUOC63T4APM                       |                                 |                            |                                |                                                                   |              |
| ND 710...1000<br>HD 560...800                                                             |                                 | 2 x MODBUOC80Q4APM<br>2 x MODBUOC80R4APM | 1 x APMBC0CTLN4                 | 2 x APMBC0C50N4            | 1 x VW3A97A01                  | 4                                                                 | 1            |
|                                                                                           | ND 1000...1400<br>HD 800...1100 | 2 x MODBUOC80T4APM                       |                                 |                            |                                |                                                                   |              |
| Standard drives three-phase supply voltage: 500...690 V 50/60 Hz - reduced height version |                                 |                                          |                                 |                            |                                |                                                                   |              |
| ND 75...132<br>HD 55...110                                                                |                                 | 1 x MODBUOC20N6APM<br>1 x MODBUOC20Q6APM | 1 x APMBC0CTLY6                 | 1 x APMBC0C63Y6            | —                              | 2                                                                 | —            |
| ND 110...200<br>HD 90...160                                                               |                                 |                                          |                                 |                            |                                |                                                                   |              |
|                                                                                           | ND 175...200<br>HD 150...175    | 1 x MODBUOC20T6APM                       |                                 |                            |                                |                                                                   |              |
| ND 160...280<br>HD 132...220                                                              |                                 | 1 x MODBUOC40N6APM<br>1 x MODBUOC40Q6APM | 1 x APMBC0CTLY6                 | 1 x APMBC0C63Y6            | —                              | 1                                                                 | 1            |
| ND 250...400<br>HD 200...315                                                              | ND 250...450<br>HD 200...350    | 1 x MODBUOC40T6APM                       |                                 |                            |                                |                                                                   |              |
| ND 355...450<br>HD 280...355                                                              |                                 | 1 x MODBUOC63N6APM<br>1 x MODBUOC63Q6APM | 1 x APMBC0CTLY6                 | 1 x APMBC0C63Y6            | —                              | 3                                                                 | —            |
| ND 500...630<br>HD 400...500                                                              |                                 |                                          |                                 |                            |                                |                                                                   |              |
|                                                                                           | ND 550...650<br>HD 450...550    | 1 x MODBUOC63T6APM                       |                                 |                            |                                |                                                                   |              |
| ND 560<br>HD 450                                                                          |                                 | 2 x MODBUOC80N6APM<br>2 x MODBUOC80Q6APM | 1 x APMBC0CTLY6                 | 2 x APMBC0C63Y6            | 1 x VW3A97A01                  | 5                                                                 | —            |
| ND 800<br>HD 630                                                                          |                                 |                                          |                                 |                            |                                |                                                                   |              |
|                                                                                           | ND 800<br>HD 650                | 2 x MODBUOC80T6APM                       |                                 |                            |                                |                                                                   |              |
| ND 710<br>HD 560                                                                          |                                 | 2 x MODBUOM10N6APM<br>2 x MODBUOM10Q6APM | 1 x APMBC0CTLY6                 | 2 x APMBC0C63Y6            | 1 x VW3A97A01                  | 4                                                                 | 1            |
| ND 1000<br>HD 800                                                                         |                                 |                                          |                                 |                            |                                |                                                                   |              |
|                                                                                           | ND 1000<br>HD 800               | 2 x MODBUOM10T6APM                       |                                 |                            |                                |                                                                   |              |
| ND 800<br>HD 710                                                                          |                                 | 2 x MODBUOM12N6APM<br>2 x MODBUOM12Q6APM | 1 x APMBC0CTLY6                 | 2 x APMBC0C63Y6            | 1 x VW3A97A01                  | 3                                                                 | 2            |
| ND 1200<br>HD 1000                                                                        |                                 |                                          |                                 |                            |                                |                                                                   |              |
|                                                                                           | ND 1200<br>HD 1000              | 2 x MODBUOM12T6APM                       |                                 |                            |                                |                                                                   |              |
| Pages                                                                                     |                                 | 72                                       | 20                              | 20                         | 21                             | (1) (2)                                                           |              |

(1) These cabinet recommendations are for standard integration. For flexible solutions, please contact your Schneider Electric supplier.  
(2) Cabinets must have a minimum depth of 600 mm/23.6 in., and a minimum height of:  
■ 2,150 mm/84.6 in. (including the roof-top extension) for IP20/21/23/40/41/43 standard cabinet integration  
■ 2,350 mm/92.5 in. (including the plinth and roof-top extension) for IP54 standard cabinet integration



Variable speed drives  
Altivar Process Modular  
Standard liquid-cooled architectures without braking unit  
Universal version

| Table showing possible combinations to create architectures                                        |           |                                                                                                    |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
|----------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------|-------------------|-------------------------|------------------------------------------------------------------------|-----------------------------------------------|--|
| Motor (ND/HD)                                                                                      |           | Drive ATV6/ATV9<br>(1)                                                                             | Control units                                                          | Power modules                      | Line choke module | Motor protection module | Cabinet cooling module (2)                                             | Cabinets for IP 20 up to IP 66<br>integration |  |
| ND: Normal duty<br>HD: Heavy duty                                                                  |           |                                                                                                    |                                                                        |                                    |                   |                         |                                                                        | 600 mm width                                  |  |
| kW                                                                                                 | HP        | Standard liquid-cooled drives three-phase supply voltage: 380...480 V 50/60 Hz - Universal version |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 132/110                                                                                            | 200/150   | ATV●L0C13●4                                                                                        | 1 x APM6L0CTLN<br>(ATV6L0)<br><br>or<br><br>1 x APM6L0CTLN<br>(ATV9L0) | 1 x APM1L0C20N4                    | 1 x APM1L0LCMN4   | 1 x APM1L0MPMN4         | 1 x APM1L0CCM230<br>(230V)<br><br>or<br><br>1 x APM1L0CCM115<br>(115V) | 1                                             |  |
| 160/132                                                                                            | 250/200   | ATV●L0C16●4                                                                                        |                                                                        | 1 x APM1L0C31N4                    |                   |                         |                                                                        |                                               |  |
| 200/160                                                                                            | 300/250   | ATV●L0C20●4                                                                                        |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 250/200                                                                                            | 400/300   | ATV●L0C25●4                                                                                        |                                                                        | 2 x APM1L0C20N4<br>2 x APM1L0C31N4 | 2 x APM1L0LCMN4   | 2 x APM1L0MPMN4         |                                                                        | 2                                             |  |
| 315/250                                                                                            | 500/400   | ATV●L0C31●4                                                                                        |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 400/315                                                                                            | 600/500   | ATV●L0C40●4                                                                                        |                                                                        | 3 x APM1L0C31N4                    | 3 x APM1L0LCMN4   | 3 x APM1L0MPMN4         |                                                                        | 3                                             |  |
| 500/400                                                                                            | 700/600   | ATV●L0C50●4                                                                                        |                                                                        | 4 x APM1L0C31N4                    | 4 x APM1L0LCMN4   | 4 x APM1L0MPMN4         |                                                                        | 4                                             |  |
| 630/500                                                                                            | 900/700   | ATV●L0C63●4                                                                                        |                                                                        | 5 x APM1L0C31N4                    | 5 x APM1L0LCMN4   | 5 x APM1L0MPMN4         |                                                                        | 5                                             |  |
| 800/630                                                                                            | 1100/900  | ATV●L0C80●4                                                                                        |                                                                        | 6 x APM1L0C31N4                    | 6 x APM1L0LCMN4   | 6 x APM1L0MPMN4         |                                                                        | 6                                             |  |
| 900/710                                                                                            | 1300/1000 | ATV●L0C90●4                                                                                        |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 1000/800                                                                                           | 1400/1100 | ATV●L0M10●4                                                                                        |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 1200/1000                                                                                          | 1700/1400 | ATV●L0M12●4                                                                                        |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 1500/1200                                                                                          | 2200/1700 | ATV●L0M15●4                                                                                        |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 1800/1400                                                                                          | 2500/2000 | ATV●L0M18●4                                                                                        |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| Standard liquid-cooled drives three-phase supply voltage: 500...690 V 50/60 Hz - Universal version |           |                                                                                                    |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 132/110 (500V)                                                                                     | 200/150   | ATV●L0C20●6                                                                                        | 1 x APM6L0CTLN<br>(ATV6L0)<br><br>or<br><br>1 x APM6L0CTLN<br>(ATV9L0) | 1 x APM1L0C28Y6                    | 1 x APM1L0LCMY6   | 1 x APM1L0MPMY6         | 1 x APM1L0CCM230<br>(230V)<br><br>or<br><br>1 x APM1L0CCM115<br>(115V) | 1                                             |  |
| 200/160 (690V)                                                                                     | 300/200   | ATV●L0C28●6                                                                                        |                                                                        | 1 x APM1L0C45Y6                    |                   |                         |                                                                        |                                               |  |
| 200/160 (500V)                                                                                     |           |                                                                                                    |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 280/220 (690V)                                                                                     | 350/250   | ATV●L0C31●6                                                                                        |                                                                        | 2 x APM1L0C28Y6<br>2 x APM1L0C45Y6 | 2 x APM1L0LCMY6   | 2 x APM1L0MPMY6         |                                                                        | 2                                             |  |
| 220/180 (500V)                                                                                     |           |                                                                                                    |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 315/250 (690V)                                                                                     | 450/350   | ATV●L0C40●6                                                                                        |                                                                        | 3 x APM1L0C45Y6                    | 3 x APM1L0LCMY6   | 3 x APM1L0MPMY6         |                                                                        | 3                                             |  |
| 250/220 (500V)                                                                                     |           |                                                                                                    |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 400/315 (690)                                                                                      | 500/400   | ATV●L0C45●6                                                                                        |                                                                        | 4 x APM1L0C45Y6                    | 4 x APM1L0LCMY6   | 4 x APM1L0MPMY6         |                                                                        | 4                                             |  |
| 315/250 (500V)                                                                                     |           |                                                                                                    |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 450/355 (690V)                                                                                     | 600/500   | ATV●L0C56●6                                                                                        |                                                                        | 5 x APM1L0C45Y6                    | 5 x APM1L0LCMY6   | 5 x APM1L0MPMY6         |                                                                        | 6                                             |  |
| 400/315 (500V)                                                                                     |           |                                                                                                    |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 560/450 (690V)                                                                                     | 700/600   | ATV●L0C71●6                                                                                        |                                                                        | 6 x APM1L0C45Y6                    | 6 x APM1L0LCMY6   | 6 x APM1L0MPMY6         |                                                                        |                                               |  |
| 500/400 (500V)                                                                                     |           |                                                                                                    |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 710/560 (690V)                                                                                     | 900/700   | ATV●L0C90●6                                                                                        |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 630/500 (500V)                                                                                     |           |                                                                                                    |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 900/710 (690V)                                                                                     | 1200/1000 | ATV●L0M12●6                                                                                        |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 800/710 (500V)                                                                                     |           |                                                                                                    |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 1200/1000(690V)                                                                                    | 1400/1100 | ATV●L0M14●6                                                                                        |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 1000/800 (500V)                                                                                    |           |                                                                                                    |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 1400/1100 (690V)                                                                                   | 1600/1300 | ATV●L0M16●6                                                                                        |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 1200/900 (500V)                                                                                    |           |                                                                                                    |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 1600/1300 (690V)                                                                                   | 1800/1400 | ATV●L0M18●6                                                                                        |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 1300/1000 (500V)                                                                                   |           |                                                                                                    |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 1800/1400 (690V)                                                                                   | 2200/1700 | ATV●L0M22●6                                                                                        |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 1600/1200 (500V)                                                                                   |           |                                                                                                    |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 2200/1700 (690V)                                                                                   | 2600/2100 | ATV●L0M26●6                                                                                        |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 1900/1500 (500V)                                                                                   |           |                                                                                                    |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| 2600/2100 (690V)                                                                                   |           |                                                                                                    |                                                                        |                                    |                   |                         |                                                                        |                                               |  |
| Pages                                                                                              |           | 60                                                                                                 | 22                                                                     | 20                                 | 26                | 26                      | 26                                                                     | (3) (4)                                       |  |

(1) Replace "●4" with "Q4" for 400V, "R4" for 440V, and "T4" for 480V power supply. Replace "●6" with "N6" for 500V, "Q6" for 600V, and "Y6" for 690V power supply.  
(2) Depending on the available control voltage, a module with 115 VAC or 230 VAC can be used.  
(3) These cabinet recommendations are for standard integration. For flexible solutions, please contact your Schneider Electric supplier.  
(4) Cabinets must have a minimum depth of 600 mm/23.6 in., and a minimum height of:  
■ 2,150 mm/84.6 in. (including the roof-top extension) for IP20/21/23/40/41/43 standard cabinet integration  
■ 2,350 mm/92.5 in. (including the plinth and roof-top extension) for IP54 standard cabinet integration

Variable speed drives  
Altivar Process Modular  
Standard liquid-cooled architectures without braking unit  
Compact version

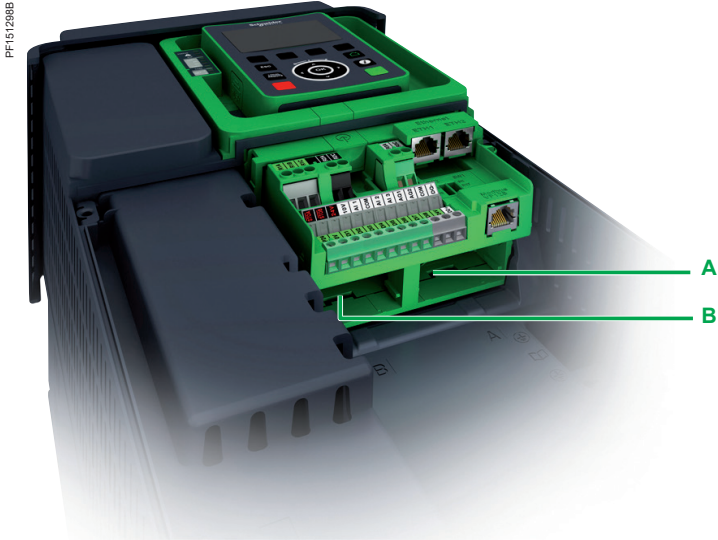
| Table showing possible combinations to create architectures                                      |           |                        |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
|--------------------------------------------------------------------------------------------------|-----------|------------------------|------------------------------------------------------------------------|-----------------|--------------------|-------------------------|-------------------------|--------------------------------------------|--------------|--------------|--|--|--|--|--|--|--|--|
| Motor (ND/HD)<br><br>ND: Normal duty<br>HD: Heavy duty                                           |           | Drive ATV6/ATV9<br>(1) | Control units                                                          | Power modules   | Line filter module | Line paralleling module | Motor protection module | Cabinets for IP 20 up to IP 66 integration |              |              |  |  |  |  |  |  |  |  |
|                                                                                                  |           |                        |                                                                        |                 |                    |                         |                         | 400 mm width                               | 600 mm width | 800 mm width |  |  |  |  |  |  |  |  |
| Standard liquid-cooled drives three-phase supply voltage: 380...480 V 50/60 Hz - Compact version |           |                        |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 132/110                                                                                          | 200/150   | ATV●L0C13●4            | 1 x APM6L0CTLN<br>(ATV6L0)<br><br>or<br><br>1 x APM6L0CTLN<br>(ATV9L0) | 1 x APM1L0C20N4 | 1 x APM1L0LFMN4    | 1 x APM1L0LPMN4         | 1 x APM1L0MPMN4         | 1                                          | –            | –            |  |  |  |  |  |  |  |  |
| 160/132                                                                                          | 250/200   | ATV●L0C16●4            |                                                                        | 1 x APM1L0C31N4 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 200/160                                                                                          | 300/250   | ATV●L0C20●4            |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 250/200                                                                                          | 400/300   | ATV●L0C25●4            |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 315/250                                                                                          | 500/400   | ATV●L0C31●4            |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 400/315                                                                                          | 600/500   | ATV●L0C40●4            |                                                                        | 2 x APM1L0C20N4 | 1 x APM1L0LFMN4    | 2 x APM1L0LPMN4         | 2 x APM1L0MPMN4         | –                                          | 1            | –            |  |  |  |  |  |  |  |  |
| 500/400                                                                                          | 700/600   | ATV●L0C50●4            |                                                                        | 2 x APM1L0C31N4 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 630/500                                                                                          | 900/700   | ATV●L0C63●4            |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 800/630                                                                                          | 1100/900  | ATV●L0C80●4            |                                                                        | 3 x APM1L0C31N4 | 1 x APM1L0LFMN4    | 3 x APM1L0LPMN4         | 3 x APM1L0MPMN4         | –                                          | –            | 1            |  |  |  |  |  |  |  |  |
| 900/710                                                                                          | 1300/1000 | ATV●L0C90●4            |                                                                        | 4 x APM1L0C31N4 | 2 x APM1L0LFMN4    | 4 x APM1L0LPMN4         | 4 x APM1L0MPMN4         | –                                          | 2            | –            |  |  |  |  |  |  |  |  |
| 1000/800                                                                                         | 1400/1100 | ATV●L0M10●4            |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 1200/1000                                                                                        | 1700/1400 | ATV●L0M12●4            |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 1500/1200                                                                                        | 2200/1700 | ATV●L0M15●4            |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 1800/1400                                                                                        | 2500/2000 | ATV●L0M18●4            |                                                                        | 6 x APM1L0C31N4 | 2 x APM1L0LFMN4    | 6 x APM1L0LPMN4         | 6 x APM1L0MPMN4         | –                                          | –            | 2            |  |  |  |  |  |  |  |  |
| Standard liquid-cooled drives three-phase supply voltage: 500...690 V 50/60 Hz - Compact version |           |                        |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 132/110 (500V)                                                                                   | 200/150   | ATV●L0C20●6            | 1 x APM6L0CTLN<br>(ATV6L0)<br><br>or<br><br>1 x APM6L0CTLN<br>(ATV9L0) | 1 x APM1L0C28Y6 | 1 x APM1L0LFMY6    | 1 x APM1L0LPMY6         | 1 x APM1L0MPMY6         | 1                                          |              |              |  |  |  |  |  |  |  |  |
| 200/160 (690V)                                                                                   | 300/200   | ATV●L0C28●6            |                                                                        | 1 x APM1L0C45Y6 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 200/160 (500V)                                                                                   |           |                        |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 280/220 (690V)                                                                                   | 350/250   | ATV●L0C31●6            |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 220/180 (500V)                                                                                   |           |                        |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 315/250 (690V)                                                                                   | 450/350   | ATV●L0C40●6            |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 250/220 (500V)                                                                                   |           |                        |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 400/315 (690)                                                                                    | 500/400   | ATV●L0C45●6            |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 315/250 (500V)                                                                                   |           |                        |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 450/355 (690V)                                                                                   | 600/500   | ATV●L0C56●6            |                                                                        | 2 x APM1L0C28Y6 | 1 x APM1L0LFMY6    | 2 x APM1L0LPMY6         | 2 x APM1L0MPMY6         | 2                                          |              |              |  |  |  |  |  |  |  |  |
| 400/315 (500V)                                                                                   |           |                        |                                                                        | 2 x APM1L0C45Y6 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 560/450 (690V)                                                                                   |           |                        |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 500/400 (500V)                                                                                   |           |                        |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 710/560 (690V)                                                                                   |           |                        |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 630/500 (500V)                                                                                   | 900/700   | ATV●L0C90●6            |                                                                        | 3 x APM1L0C45Y6 | 1 x APM1L0LFMY6    | 3 x APM1L0LPMY6         | 3 x APM1L0MPMY6         | 3                                          |              |              |  |  |  |  |  |  |  |  |
| 900/710 (690V)                                                                                   |           |                        |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 800/710 (500V)                                                                                   | 1200/1000 | ATV●L0M12●6            |                                                                        | 4 x APM1L0C45Y6 | 2 x APM1L0LFMY6    | 4 x APM1L0LPMY6         | 4 x APM1L0MPMY6         | 4                                          |              |              |  |  |  |  |  |  |  |  |
| 1200/1000(690V)                                                                                  |           |                        |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 1000/800 (500V)                                                                                  | 1400/1100 | ATV●L0M14●6            |                                                                        | 5 x APM1L0C45Y6 | 2 x APM1L0LFMY6    | 5 x APM1L0LPMY6         | 5 x APM1L0MPMY6         | 5                                          |              |              |  |  |  |  |  |  |  |  |
| 1400/1100 (690V)                                                                                 |           |                        |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 1200/900 (500V)                                                                                  | 1600/1300 | ATV●L0M16●6            |                                                                        | 6 x APM1L0C45Y6 | 2 x APM1L0LFMY6    | 4 x APM1L0LPMY6         | 4 x APM1L0MPMY6         | 6                                          |              |              |  |  |  |  |  |  |  |  |
| 1600/1300 (690V)                                                                                 |           |                        |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 1300/1000 (500V)                                                                                 | 1800/1400 | ATV●L0M18●6            |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 1800/1400 (690V)                                                                                 |           |                        |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 1600/1200 (500V)                                                                                 | 2200/1700 | ATV●L0M22●6            |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 2200/1700 (690V)                                                                                 |           |                        |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 1900/1500 (500V)                                                                                 | 2600/2100 | ATV●L0M26●6            |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| 2600/2100 (690V)                                                                                 |           |                        |                                                                        |                 |                    |                         |                         |                                            |              |              |  |  |  |  |  |  |  |  |
| Pages                                                                                            |           | 60                     | 22                                                                     | 20              | 26                 | 26                      | 26                      | (2) (3)                                    |              |              |  |  |  |  |  |  |  |  |

(1) Replace "●4" with "Q4" for 400V, "R4" for 440V, and "T4" for 480V power supply. Replace "●6" with "N6" for 500V, "Q6" for 600V, and "Y6" for 690V power supply.  
(2) These cabinet recommendations are for standard integration. For flexible solutions, please contact your Schneider Electric supplier.  
(3) Cabinets must have a minimum depth of 600 mm/23.6 in., and a minimum height of:  
■ 2,150 mm/84.6 in. (including the roof-top extension) for IP20/21/23/40/41/43 standard cabinet integration  
■ 2,350 mm/92.5 in. (including the plinth and roof-top extension) for IP54 standard cabinet integration

Variable speed drives  
Altivar Process Modular  
Compatibility table

| Module compatibility table                     |           |                   |                 |
|------------------------------------------------|-----------|-------------------|-----------------|
| Safety module                                  |           |                   |                 |
| Description                                    | Reference | Compatibility     | Slot            |
| Safety module                                  | VW3A3802  | ATV900            | C (2)           |
| Encoder interface modules                      |           |                   |                 |
| Description                                    | Reference | Compatibility     | Slot            |
| Digital encoder interface module               | VW3A3420  | ATV900            | B               |
| Analog encoder interface module                | VW3A3422  | ATV900            | B               |
| Resolver interface module                      | VW3A3423  | ATV900            | B               |
| HTL encoder interface module                   | VW3A3424  | ATV900            | B               |
| Additional I/O modules                         |           |                   |                 |
| Description                                    | Reference | Compatibility     | Slot            |
| Extended I/O module (1)                        | VW3A3203  | ATV600 and ATV900 | A or B or C (2) |
| Extended relay module (1)                      | VW3A3204  | ATV600 and ATV900 | A or B or C (2) |
| Fieldbus modules                               |           |                   |                 |
| Description                                    | Reference | Compatibility     | Slot            |
| EtherNet/IP and Modbus TCP dual port           | VW3A3720  | ATV600            | A               |
| EtherNet/IP, Modbus TCP, and MD-Link dual port | VW3A3721  | ATV600            | A               |
| CANopen daisy chain                            | VW3A3608  | ATV600 and ATV900 | A               |
| CANopen SUB-D                                  | VW3A3618  | ATV600 and ATV900 | A               |
| CANopen screw terminal block                   | VW3A3628  | ATV600 and ATV900 | A               |
| PROFINET                                       | VW3A3627  | ATV600 and ATV900 | A               |
| PROFIBUS DP V1                                 | VW3A3607  | ATV600 and ATV900 | A               |
| POWERLINK Network                              | VW3A3619  | ATV600 and ATV900 | A               |
| BACnet MS/TP                                   | VW3A3725  | ATV600            | A               |
| EtherCAT                                       | VW3A3601  | ATV900            | A               |
| DeviceNet                                      | VW3A3609  | ATV600 and ATV900 | A               |

(1) These references can only be used once per drive, e.g. VW3A3203 in slot A and VW3A3204 in slot B.  
(2) The Altivar 900 drive must be equipped with an additional module support VW3A3800 to be able to insert the safety module VW3A3802.



Altivar Process drives slots

For more information on compatible options and accessories, please contact your Schneider Electric supplier or consult the product selector available on our [partner portal](#).

For more details on I/O, encoder, and communication modules, please refer to the Altivar Process ATV600 and ATV900 catalogs:



Altivar Process catalogs  
Click to open the documents

### Applications

Circuit breaker/contactor/drive combinations help to ensure continuity of service in the installation.

The type of circuit breaker/contactor coordination selected can reduce maintenance costs in the event of a motor short-circuit on the drive input by minimizing the time required to make the necessary repairs and the cost of replacement equipment. The suggested combinations provide coordination according to the drive rating.

The selection according to IEC considers loading of components with max. 80% up to 1600A nominal current, to avoid thermal test requirement according IEC 61439-1.

The selection according to UL considers the requirement for disconnect switches not carrying full load currents more than 80% of their nominal current.

The drive controls the motor, provides a monitoring function against short-circuits between the drive and the motor, and helps protect the motor cable against overloads. Overload monitoring is provided by the drive's motor thermal monitoring function if this has been enabled. Otherwise, an external monitoring device such as a probe or thermal overload relay must be provided.

Selecting short-circuit protection devices (fuses or circuit breakers) is key to helping to protect the overall installation against potential damage caused by short-circuits. It is recommended to refer to the APM Integration Manuals



NS1250N Micrologic 5.0

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LC1F1400●●

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ATV6A0C71Q4

### IEC standard motor starters

| Nominal power<br>ND: Normal duty<br>HD: Heavy duty |    | Drive<br>Reference (1) | Circuit breaker            |                 |          | Line contactor |                 |
|----------------------------------------------------|----|------------------------|----------------------------|-----------------|----------|----------------|-----------------|
|                                                    |    |                        | Type (2)                   | Rating<br>@50°C | Ii       | Reference (3)  | Rating<br>@60°C |
| kW                                                 | HP |                        |                            | A               | A        | A              | A               |
| Three-phase supply voltage: 400 V 50/60 Hz         |    |                        |                            |                 |          |                |                 |
| ND 110                                             | —  | ATV●A0C11Q4            | NSX250N Micrologic 2.2 250 | 250             | 3000 (4) | LC1F225●●      | 280             |
| HD 90                                              |    |                        | NSX250N Micrologic 2.2 250 | 250             | 3000 (4) | LC1F185●●      | 240             |
| ND 132                                             | —  | ATV●A0C13Q4            | NSX400N Micrologic 2.3 400 | 400             | 4800 (4) | LC1F265●●      | 300             |
| HD 110                                             |    |                        | NSX250N Micrologic 2.2 250 | 250             | 3000 (4) | LC1F225●●      | 280             |
| ND 160                                             | —  | ATV●A0C16Q4            | NSX400N Micrologic 2.3 400 | 400             | 4800 (4) | LC1F330●●      | 360             |
| HD 132                                             |    |                        | NSX400N Micrologic 2.3 400 | 400             | 4800 (4) | LC1F265●●      | 300             |
| ND 200                                             | —  | ATV●A0C20Q4            | NSX630N Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500●●      | 580             |
| HD 160                                             |    |                        | NSX400N Micrologic 2.3 400 | 400             | 4800 (4) | LC1F400●●      | 430             |
| ND 250                                             | —  | ATV●A0C25Q4            | NSX630N Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500●●      | 580             |
| HD 200                                             |    |                        | NSX630N Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500●●      | 580             |
| ND 315                                             | —  | ATV●A0C31Q4            | NS800N Micrologic 5.0      | 800             | 1600 (5) | LC1F630●●      | 850             |
| HD 250                                             |    |                        | NSX630N Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500●●      | 580             |
| ND 355                                             | —  | ATV●A0C35Q4            | NS800N Micrologic 5.0      | 800             | 1600 (5) | LC1F630●●      | 850             |
| HD 280                                             |    |                        | NS630N Micrologic 5.0      | 630             | 1260 (5) | LC1F630●●      | 850             |
| ND 400                                             | —  | ATV●A0C40Q4            | NS1000N Micrologic 5.0     | 1000            | 2000 (5) | LC1F1250●●     | 1060            |
| HD 315                                             |    |                        | NS800N Micrologic 5.0      | 800             | 1600 (5) | LC1F630●●      | 850             |
| ND 450                                             | —  | ATV●A0C45Q4            | NS1000N Micrologic 5.0     | 1000            | 2000 (5) | LC1F1250●●     | 1060            |
| HD 355                                             |    |                        | NS800N Micrologic 5.0      | 800             | 1600 (5) | LC1F630●●      | 850             |
| ND 500                                             | —  | ATV●A0C50Q4            | NS1250N Micrologic 5.0     | 1250            | 2500 (5) | LC1F1250●●     | 1060            |
| HD 400                                             |    |                        | NS1000N Micrologic 5.0     | 1000            | 2000 (5) | LC1F1250●●     | 1060            |
| ND 560                                             | —  | ATV●A0C56Q4            | NS1250N Micrologic 5.0     | 1250            | 2500 (5) | LC1F1250●●     | 1190            |
| HD 450                                             |    |                        | NS1000N Micrologic 5.0     | 1000            | 2000 (5) | LC1F1250●●     | 1060            |
| ND 630                                             | —  | ATV●A0C63Q4            | NS1600N Micrologic 5.0     | 1600            | 3200 (5) | LC1F1700●●     | 1450            |
| HD 500                                             |    |                        | NS1250N Micrologic 5.0     | 1250            | 2500 (5) | LC1F1400●●     | 1190            |
| ND 710                                             | —  | ATV●A0C71Q4            | NS1600N Micrologic 5.0     | 1600            | 3200 (5) | LC1F2100●●     | 1750            |
| HD 560                                             |    |                        | NS1250N Micrologic 5.0     | 1250            | 2500 (5) | LC1F1400●●     | 1190            |
| ND 800                                             | —  | ATV●A0C80Q4            | MTZ2 20H1 Micrologic 5.0 X | 2000            | 4000 (5) | LC1F2100●●     | 1750            |
| HD 630                                             |    |                        | NS1600N Micrologic 5.0     | 1600            | 3200 (5) | LC1F1700●●     | 1450            |
| ND 1000                                            | —  | ATV●A0M10Q4            | 2x NS1250N Micrologic 5.0  | 1250            | 2500 (5) | 2x LC1F1250●●  | 1060            |
| HD 800                                             |    |                        | 2x NS1000N Micrologic 5.0  | 1000            | 2000 (5) | 2x LC1F1250●●  | 1060            |

(1) Replace the dot ● with «6» for ATV6A0 or «9» for ATV9A0.

(2) The type of circuit breaker is selected for Icu min. 50 kA.

(3) Replace the dots ●● with the control circuit voltage code indicated in the documentation for the contactor.

(4) Rated instantaneous short-circuit current Ii: fixed.

(5) Rated instantaneous short-circuit current Ii: setting 2.





NS800N Micrologic 5.0

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LC1F630●●

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ATV9A0C45R4

| IEC standard motor starters                |      |   |                        |                            |                 |          |                |                 |
|--------------------------------------------|------|---|------------------------|----------------------------|-----------------|----------|----------------|-----------------|
| Nominal power                              |      |   | Drive<br>Reference (1) | Circuit breaker            |                 |          | Line contactor |                 |
| ND: Normal duty<br>HD: Heavy duty          |      |   |                        | Type (2)                   | Rating<br>@50°C | Ii       | Reference (3)  | Rating<br>@60°C |
| kW                                         | HP   |   |                        |                            | A               | A        | A              | A               |
| Three-phase supply voltage: 440 V 50/60 Hz |      |   |                        |                            |                 |          |                |                 |
| ND                                         | 110  | – | ATV●A0C11R4            | NSX250N Micrologic 2.2 250 | 250             | 3000 (4) | LC1F185●●      | 240             |
| HD                                         | 90   |   |                        | NSX250N Micrologic 2.2 250 | 250             | 3000 (4) | LC1D115●●      | 200             |
| ND                                         | 132  | – | ATV●A0C13R4            | NSX400H Micrologic 2.3 400 | 400             | 4800 (4) | LC1F225●●      | 280             |
| HD                                         | 110  |   |                        | NSX250N Micrologic 2.2 250 | 250             | 3000 (4) | LC1F185●●      | 240             |
| ND                                         | 160  | – | ATV●A0C16R4            | NSX400H Micrologic 2.3 400 | 400             | 4800 (4) | LC1F330●●      | 360             |
| HD                                         | 132  |   |                        | NSX400H Micrologic 2.3 400 | 400             | 4800 (4) | LC1F225●●      | 280             |
| ND                                         | 200  | – | ATV●A0C20R4            | NSX630H Micrologic 2.3 630 | 600             | 6900 (4) | LC1F400●●      | 430             |
| HD                                         | 160  |   |                        | NSX400H Micrologic 2.3 400 | 400             | 4800 (4) | LC1F330●●      | 360             |
| ND                                         | 250  | – | ATV●A0C25R4            | NSX630H Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500●●      | 580             |
| HD                                         | 200  |   |                        | NSX630H Micrologic 2.3 630 | 600             | 6900 (4) | LC1F400●●      | 430             |
| ND                                         | 315  | – | ATV●A0C31R4            | NS630bN Micrologic 5.0     | 630             | 1260 (5) | LC1F630●●      | 850             |
| HD                                         | 250  |   |                        | NSX630H Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500●●      | 580             |
| ND                                         | 355  | – | ATV●A0C35R4            | NS800N Micrologic 5.0      | 800             | 1600 (5) | LC1F630●●      | 850             |
| HD                                         | 280  |   |                        | NSX630H Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500●●      | 580             |
| ND                                         | 400  | – | ATV●A0C40R4            | NS800N Micrologic 5.0      | 800             | 1600 (5) | LC1F630●●      | 850             |
| HD                                         | 315  |   |                        | NS630bN Micrologic 5.0     | 630             | 1260 (5) | LC1F630●●      | 850             |
| ND                                         | 450  | – | ATV●A0C45R4            | NS1000N Micrologic 5.0     | 1000            | 2000 (5) | LC1F1250●●     | 1060            |
| HD                                         | 355  |   |                        | NS800N Micrologic 5.0      | 800             | 1600 (5) | LC1F630●●      | 850             |
| ND                                         | 500  | – | ATV●A0C50R4            | NS1000N Micrologic 5.0     | 1000            | 2000 (5) | LC1F1250●●     | 1060            |
| HD                                         | 400  |   |                        | NS800N Micrologic 5.0      | 800             | 1600 (5) | LC1F630●●      | 850             |
| ND                                         | 560  | – | ATV●A0C56R4            | NS1250N Micrologic 5.0     | 1250            | 2500 (5) | LC1F1400●●     | 1190            |
| HD                                         | 450  |   |                        | NS1000N Micrologic 5.0     | 1000            | 2000 (5) | LC1F1250●●     | 1060            |
| ND                                         | 630  | – | ATV●A0C63R4            | NS1250N Micrologic 5.0     | 1250            | 2500 (5) | LC1F1700●●     | 1450            |
| HD                                         | 500  |   |                        | NS1000N Micrologic 5.0     | 1000            | 2000 (5) | LC1F1250●●     | 1060            |
| ND                                         | 710  | – | ATV●A0C71R4            | NS1600N Micrologic 5.0     | 1600            | 3200 (5) | LC1F1700●●     | 1450            |
| HD                                         | 560  |   |                        | NS1250N Micrologic 5.0     | 1250            | 2500 (5) | LC1F1400●●     | 1190            |
| ND                                         | 800  | – | ATV●A0C80R4            | NS1600N Micrologic 5.0     | 1600            | 3200 (5) | LC1F2100●●     | 1750            |
| HD                                         | 630  |   |                        | NS1250N Micrologic 5.0     | 1250            | 2500 (5) | LC1F1700●●     | 1450            |
| ND                                         | 1000 | – | ATV●A0M10R4            | 2x NS1000N Micrologic 5.0  | 1000            | 2000 (5) | 2x LC1F1250●●  | 1060            |
| HD                                         | 800  |   |                        | 2x NS800N Micrologic 5.0   | 800             | 1600 (5) | 2x LC1F630●●   | 850             |

(1) Replace the dot ● with «6» for ATV6A0 or «9» for ATV9A0.

(2) The type of circuit breaker is selected for Icu min. 50 kA.

(3) Replace the dots ●● with the control circuit voltage code indicated in the documentation for the contactor.

(4) Rated instantaneous short-circuit current Ii: fixed.

(5) Rated instantaneous short-circuit current Ii: setting 2.





LLL36600U31X

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LC1F400●●

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ATV9A0C25T4

| UL standard motor starters                 |    |                        |                 |                 |      |                |                 |      |
|--------------------------------------------|----|------------------------|-----------------|-----------------|------|----------------|-----------------|------|
| Nominal power                              |    | Drive<br>Reference (1) | Circuit breaker |                 |      | Line contactor |                 |      |
| ND: Normal duty<br>HD: Heavy duty          |    |                        | Type (2)        | Rating<br>@50°C | li   | Reference (3)  | Rating<br>@60°C |      |
| kW                                         | HP |                        |                 | A               | A    | A              | A               |      |
| Three-phase supply voltage: 480 V 50/60 Hz |    |                        |                 |                 |      |                |                 |      |
| ND                                         | —  | 150                    | ATV•A0C11T4     | JLL36250U31X    | 250  | 500 (4)        | LC1F185••       | 240  |
| HD                                         |    | 125                    |                 | JLL36250U31X    | 250  | 500 (4)        | LC1D115••       | 200  |
| ND                                         | —  | 200                    | ATV•A0C13T4     | LLL36400U31X    | 400  | 800 (4)        | LC1F225••       | 280  |
| HD                                         |    | 150                    |                 | JLL36250U31X    | 250  | 500 (4)        | LC1F185••       | 240  |
| ND                                         | —  | 250                    | ATV•A0C16T4     | LLL36400U31X    | 400  | 800 (4)        | LC1F330••       | 360  |
| HD                                         |    | 200                    |                 | LLL36400U31X    | 400  | 800 (4)        | LC1F225••       | 280  |
| ND                                         | —  | 300                    | ATV•A0C20T4     | LLL36600U31X    | 600  | 1200 (4)       | LC1F400••       | 430  |
| HD                                         |    | 250                    |                 | LLL36400U31X    | 400  | 800 (4)        | LC1F330••       | 360  |
| ND                                         | —  | 400                    | ATV•A0C25T4     | LLL36600U31X    | 600  | 1200 (4)       | LC1F500••       | 580  |
| HD                                         |    | 300                    |                 | LLL36600U31X    | 600  | 1200 (4)       | LC1F400••       | 430  |
| ND                                         | —  | 500                    | ATV•A0C31T4     | PLL34080U31A    | 736  | 1600 (4)       | LC1F630••       | 850  |
| HD                                         |    | 400                    |                 | LLL36600U31X    | 600  | 1200 (4)       | LC1F500••       | 580  |
| ND                                         | —  | 550                    | ATV•A0C35T4     | PLL34080U31A    | 736  | 1600 (4)       | LC1F630••       | 850  |
| HD                                         |    | 450                    |                 | PLL34080U31A    | 736  | 1600 (4)       | LC1F630••       | 850  |
| ND                                         | —  | 600                    | ATV•A0C40T4     | PLL34100U44A    | 920  | 2000 (4)       | LC1F630••       | 850  |
| HD                                         |    | 500                    |                 | PLL34080U31A    | 736  | 1600 (4)       | LC1F630••       | 850  |
| ND                                         | —  | 650                    | ATV•A0C45T4     | PLL34100U44A    | 920  | 2000 (4)       | LC1F1250••      | 1060 |
| HD                                         |    | 550                    |                 | PLL34080U31A    | 736  | 1600 (4)       | LC1F630••       | 850  |
| ND                                         | —  | 700                    | ATV•A0C50T4     | PLL34100U44A    | 920  | 2000 (4)       | LC1F1250••      | 1060 |
| HD                                         |    | 600                    |                 | PLL34100U44A    | 920  | 2000 (4)       | LC1F630••       | 850  |
| ND                                         | —  | 800                    | ATV•A0C56T4     | PLL34120U44A    | 1104 | 2400 (4)       | LC1F1250••      | 1060 |
| HD                                         |    | 650                    |                 | PLL34100U44A    | 920  | 2000 (4)       | LC1F1250••      | 1060 |
| ND                                         | —  | 900                    | ATV•A0C63T4     | RLF36160U44A    | 1472 | 3200 (4)       | LC1F1400••      | 1190 |
| HD                                         |    | 700                    |                 | PLL34120U44A    | 1104 | 2400 (4)       | LC1F1250••      | 1060 |
| ND                                         | —  | 1000                   | ATV•A0C71T4     | RLF36160U44A    | 1472 | 3200 (4)       | LC1F1700••      | 1450 |
| HD                                         |    | 800                    |                 | PLL34120U44A    | 1104 | 2400 (4)       | LC1F1250••      | 1060 |
| ND                                         | —  | 1100                   | ATV•A0C80T4     | RLF36160U44A    | 1472 | 3200 (4)       | LC1F1700••      | 1450 |
| HD                                         |    | 900                    |                 | RLF36160U44A    | 1472 | 3200 (4)       | LC1F1400••      | 1190 |
| ND                                         | —  | 1400                   | ATV•A0M10T4     | 2x PLL34100U44A | 920  | 2000 (4)       | 2x LC1F1250••   | 1060 |
| HD                                         |    | 1100                   |                 | 2x PLL34100U44A | 920  | 2000 (4)       | 2x LC1F630••    | 850  |

(1) Replace the dot ● with «6» for ATV6A0 or «9» for ATV9A0.

(2) The type of circuit breaker is selected for I<sub>cu</sub> min. 50 kA.

(3) Replace the dots ●● with the control circuit voltage code indicated in the documentation for the contactor.

(4) Rated instantaneous short-circuit current I<sub>i</sub>: fixed.

(5) Rated instantaneous short-circuit current I<sub>i</sub>: setting 2.



JRL36250U31X

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LC1D115●●

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ATV6A0C13T6

#### IEC and UL standard motor starters

| Nominal power                              |     |   | Drive<br>Reference (1) | Circuit breaker            |                 |          | Line contactor |                 |
|--------------------------------------------|-----|---|------------------------|----------------------------|-----------------|----------|----------------|-----------------|
| ND: Normal duty<br>HD: Heavy duty          |     |   |                        | Type (2)                   | Rating<br>@50°C | li       | Reference (3)  | Rating<br>@60°C |
| kW                                         | HP  |   |                        |                            | A               | A        | A              | A               |
| Three-phase supply voltage: 500 V 50/60 Hz |     |   |                        |                            |                 |          |                |                 |
| ND                                         | 75  | — | ATV•A0C11N6            | NSX160L Micrologic 2.2 160 | 160             | 2400 (4) | LC1D115●●      | 200             |
| HD                                         | 55  |   |                        | NSX160L Micrologic 2.2 160 | 160             | 2400 (4) | LC1D80●●       | 125             |
| ND                                         | 90  | — | ATV•A0C13N6            | NSX250L Micrologic 2.2 250 | 250             | 3000 (4) | LC1D115●●      | 200             |
| HD                                         | 75  |   |                        | NSX160L Micrologic 2.2 160 | 160             | 2400 (4) | LC1D115●●      | 200             |
| ND                                         | 110 | — | ATV•A0C16N6            | NSX250L Micrologic 2.2 250 | 250             | 3000 (4) | LC1D115●●      | 200             |
| HD                                         | 90  |   |                        | NSX250L Micrologic 2.2 250 | 250             | 3000 (4) | LC1D115●●      | 200             |
| ND                                         | 132 | — | ATV•A0C20N6            | NSX250L Micrologic 2.2 250 | 250             | 3000 (4) | LC1F185●●      | 240             |
| HD                                         | 110 |   |                        | NSX250L Micrologic 2.2 250 | 250             | 3000 (4) | LC1D115●●      | 200             |
| ND                                         | 160 | — | ATV•A0C25N6            | NSX400L Micrologic 2.3 400 | 400             | 4800 (4) | LC1F265●●      | 300             |
| HD                                         | 132 |   |                        | NSX250L Micrologic 2.2 250 | 250             | 3000 (4) | LC1F185●●      | 240             |
| ND                                         | 220 | — | ATV•A0C31N6            | NSX400L Micrologic 2.3 400 | 400             | 4800 (4) | LC1F400●●      | 430             |
| HD                                         | 160 |   |                        | NSX400L Micrologic 2.3 400 | 400             | 4800 (4) | LC1F265●●      | 300             |
| ND                                         | 280 | — | ATV•A0C40N6            | NSX630L Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500●●      | 580             |
| HD                                         | 220 |   |                        | NSX400L Micrologic 2.3 400 | 400             | 4800 (4) | LC1F400●●      | 430             |
| ND                                         | 355 | — | ATV•A0C50N6            | NS630bH Micrologic 5.0     | 630             | 1260 (5) | LC1F630●●      | 850             |
| HD                                         | 280 |   |                        | NSX630L Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500●●      | 580             |
| ND                                         | 450 | — | ATV•A0C63N6            | NS800H Micrologic 5.0      | 800             | 1600 (5) | LC1F630●●      | 850             |
| HD                                         | 355 |   |                        | NS630bH Micrologic 5.0     | 630             | 1260 (5) | LC1F630●●      | 850             |
| ND                                         | 560 | — | ATV•A0C80N6            | NS1000H Micrologic 5.0     | 1000            | 2000 (5) | LC1F1250●●     | 1060            |
| HD                                         | 450 |   |                        | NS800H Micrologic 5.0      | 800             | 1600 (5) | LC1F630●●      | 850             |
| ND                                         | 710 | — | ATV•A0M10N6            | NS1250H Micrologic 5.0     | 1250            | 2500 (5) | LC1F1700●●     | 1450            |
| HD                                         | 560 |   |                        | NS1000H Micrologic 5.0     | 1000            | 2000 (5) | LC1F1250●●     | 1060            |
| ND                                         | 800 | — | ATV•A0M12N6            | NS1600H Micrologic 5.0     | 1600            | 3200 (5) | LC1F1700●●     | 1450            |
| HD                                         | 710 |   |                        | NS1250H Micrologic 5.0     | 1250            | 2500 (5) | LC1F1700●●     | 1450            |

#### Three-phase supply voltage: 600 V 50/60 Hz

|    |   |      |             |                           |      |          |            |      |
|----|---|------|-------------|---------------------------|------|----------|------------|------|
| ND | — | 125  | ATV•A0C11T6 | HRL36150U31X              | 150  | 300 (4)  | LC1D115●●  | 200  |
| HD |   | 100  |             | HRL36150U31X              | 150  | 300 (4)  | LC1D80●●   | 125  |
| ND | — | 150  | ATV•A0C13T6 | JRL36250U31X              | 250  | 500 (4)  | LC1D115●●  | 200  |
| HD |   | 125  |             | HRL36150U31X              | 150  | 300 (4)  | LC1D115●●  | 200  |
| ND | — | 175  | ATV•A0C16T6 | JRL36250U31X              | 250  | 500 (4)  | LC1D115●●  | 200  |
| HD |   | 150  |             | JRL36250U31X              | 250  | 500 (4)  | LC1D115●●  | 200  |
| ND | — | 200  | ATV•A0C20T6 | JRL36250U31X              | 250  | 500 (4)  | LC1F185●●  | 240  |
| HD |   | 175  |             | JRL36250U31X              | 250  | 500 (4)  | LC1D115●●  | 200  |
| ND | — | 250  | ATV•A0C25T6 | LRL36400U31X              | 400  | 800 (4)  | LC1F225●●  | 280  |
| HD |   | 200  |             | JRL36250U31X              | 250  | 500 (4)  | LC1F185●●  | 240  |
| ND | — | 350  | ATV•A0C31T6 | LRL36400U31X              | 400  | 800 (4)  | LC1F400●●  | 430  |
| HD |   | 250  |             | LRL36400U31X              | 400  | 800 (4)  | LC1F225●●  | 280  |
| ND | — | 450  | ATV•A0C40T6 | LRL36600U31X              | 600  | 1200 (4) | LC1F500●●  | 580  |
| HD |   | 350  |             | LRL36400U31X              | 400  | 800 (4)  | LC1F400●●  | 430  |
| ND | — | 550  | ATV•A0C50T6 | LRL36600U31X              | 600  | 1200 (4) | LC1F500●●  | 580  |
| HD |   | 450  |             | LRL36600U31X              | 600  | 1200 (4) | LC1F500●●  | 580  |
| ND | — | 650  | ATV•A0C63T6 | MTZ2 08L Micrologic 3.0 X | 736  | 1600 (4) | LC1F630●●  | 850  |
| HD |   | 550  |             | LRL36600U31X              | 600  | 1200 (4) | LC1F500●●  | 580  |
| ND | — | 800  | ATV•A0C80T6 | MTZ2 12L Micrologic 6.0 X | 1104 | 2400 (4) | LC1F630●●  | 850  |
| HD |   | 650  |             | MTZ2 08L Micrologic 3.0 X | 736  | 1600 (4) | LC1F630●●  | 850  |
| ND | — | 1000 | ATV•A0M10T6 | MTZ2 12L Micrologic 6.0 X | 1104 | 2400 (4) | LC1F1250●● | 1060 |
| HD |   | 800  |             | MTZ2 12L Micrologic 6.0 X | 1104 | 2400 (4) | LC1F630●●  | 850  |
| ND | — | 1200 | ATV•A0M12T6 | MTZ2 16L Micrologic 6.0 X | 1472 | 3200 (4) | LC1F1700●● | 1450 |
| HD |   | 1000 |             | MTZ2 12L Micrologic 6.0 X | 1104 | 2400 (4) | LC1F1250●● | 1060 |

(1) Replace the dot ● with «6» for ATV6A0 or «9» for ATV9A0.

(2) The type of circuit breaker is selected for Icu min. 50 kA.

(3) Replace the dots ●● with the control circuit voltage code indicated in the documentation for the contactor.

(4) Rated instantaneous short-circuit current Ii: fixed.

(5) Rated instantaneous short-circuit current Ii: setting 2.



NSX400HB1 Micrologic 2.3 400

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LC1F330

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ATV9A0C25Q6

| IEC standard motor starters                |      |   |                        |                              |                 |          |                |                 |  |
|--------------------------------------------|------|---|------------------------|------------------------------|-----------------|----------|----------------|-----------------|--|
| Nominal power                              |      |   | Drive<br>Reference (1) | Circuit breaker              |                 |          | Line contactor |                 |  |
| ND: Normal duty<br>HD: Heavy duty          |      |   |                        | Type (2)                     | Rating<br>@50°C | Ii       | Reference (3)  | Rating<br>@60°C |  |
| kW                                         | HP   |   |                        |                              | A               | A        | A              | A               |  |
| Three-phase supply voltage: 690 V 50/60 Hz |      |   |                        |                              |                 |          |                |                 |  |
| ND                                         | 110  | — | ATV•A0C11Q6            | NSX250HB1 Micrologic 2.2 160 | 160             | 2400 (4) | LC1D115••      | 200             |  |
| HD                                         | 90   |   |                        | NSX250HB1 Micrologic 2.2 160 | 160             | 2400 (4) | LC1D80••       | 125             |  |
| ND                                         | 132  | — | ATV•A0C13Q6            | NSX250HB1 Micrologic 2.2 250 | 250             | 3000 (4) | LC1D115••      | 200             |  |
| HD                                         | 110  |   |                        | NSX250HB1 Micrologic 2.2 160 | 160             | 2400 (4) | LC1D115••      | 200             |  |
| ND                                         | 160  | — | ATV•A0C16Q6            | NSX250HB1 Micrologic 2.2 250 | 250             | 3000 (4) | LC1F185••      | 240             |  |
| HD                                         | 132  |   |                        | NSX250HB1 Micrologic 2.2 250 | 250             | 3000 (4) | LC1D115••      | 200             |  |
| ND                                         | 200  | — | ATV•A0C20Q6            | NSX250HB1 Micrologic 2.2 250 | 250             | 3000 (4) | LC1F225••      | 280             |  |
| HD                                         | 160  |   |                        | NSX250HB1 Micrologic 2.2 250 | 250             | 3000 (4) | LC1F185••      | 240             |  |
| ND                                         | 250  | — | ATV•A0C25Q6            | NSX400HB1 Micrologic 2.3 400 | 400             | 4800 (4) | LC1F330••      | 360             |  |
| HD                                         | 200  |   |                        | NSX400HB1 Micrologic 2.3 400 | 400             | 4800 (4) | LC1F225••      | 280             |  |
| ND                                         | 315  | — | ATV•A0C31Q6            | NSX400HB1 Micrologic 2.3 400 | 400             | 4800 (4) | LC1F400••      | 430             |  |
| HD                                         | 250  |   |                        | NSX400HB1 Micrologic 2.3 400 | 400             | 4800 (4) | LC1F330••      | 360             |  |
| ND                                         | 400  | — | ATV•A0C40Q6            | NSX630HB1 Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500••      | 580             |  |
| HD                                         | 315  |   |                        | NSX400HB1 Micrologic 2.3 400 | 400             | 4800 (4) | LC1F400••      | 430             |  |
| ND                                         | 500  | — | ATV•A0C50Q6            | NS630bLB Micrologic 5.0      | 630             | 1260 (5) | LC1F630••      | 850             |  |
| HD                                         | 400  |   |                        | NSX630HB1 Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500••      | 580             |  |
| ND                                         | 630  | — | ATV•A0C63Q6            | NS800LB Micrologic 5.0       | 800             | 1600 (5) | LC1F630••      | 850             |  |
| HD                                         | 500  |   |                        | NS630bLB Micrologic 5.0      | 630             | 1260 (5) | LC1F630••      | 850             |  |
| ND                                         | 800  | — | ATV•A0C80Q6            | MTZ2 10H1 Micrologic 5.0 X   | 1000            | 2000 (5) | LC1F1250••     | 1060            |  |
| HD                                         | 630  |   |                        | NS800LB Micrologic 5.0       | 800             | 1600 (5) | LC1F630••      | 850             |  |
| ND                                         | 1000 | — | ATV•A0M10Q6            | MTZ2 12H1 Micrologic 5.0 X   | 1250            | 2500 (5) | LC1F1700••     | 1450            |  |
| HD                                         | 800  |   |                        | MTZ2 10H1 Micrologic 5.0 X   | 1000            | 2000 (5) | LC1F1250••     | 1060            |  |
| ND                                         | 1200 | — | ATV•A0M12Q6            | MTZ2 16H1 Micrologic 5.0 X   | 1600            | 3200 (5) | LC1F2100••     | 1750            |  |
| HD                                         | 1000 |   |                        | MTZ2 12H1 Micrologic 5.0 X   | 1250            | 2500 (5) | LC1F1700••     | 1450            |  |

(1) Replace the dot • with «6» for ATV6A0 or «9» for ATV9A0.

(2) The type of circuit breaker is selected for Icu min. 50 kA.

(3) Replace the dots •• with the control circuit voltage code indicated in the documentation for the contactor.

(4) Rated instantaneous short-circuit current Ii: fixed.

(5) Rated instantaneous short-circuit current Ii: setting 2.



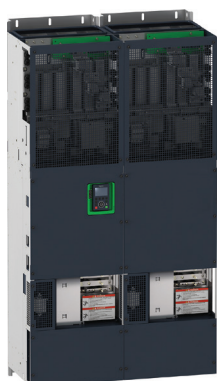
NSX630N Micrologic 2.3 630

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LC1F500●●

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ATV9B0C25Q4

| IEC standard motor starters                |      |   |                        |                            |                 |          |                |                 |
|--------------------------------------------|------|---|------------------------|----------------------------|-----------------|----------|----------------|-----------------|
| Nominal power                              |      |   | Drive<br>Reference (1) | Circuit breaker            |                 |          | Line contactor |                 |
| ND: Normal duty<br>HD: Heavy duty          |      |   |                        | Type (2)                   | Rating<br>@50°C | li       | Reference (3)  | Rating<br>@60°C |
| kW                                         | HP   |   |                        |                            | A               | A        | A              | A               |
| Three-phase supply voltage: 400 V 50/60 Hz |      |   |                        |                            |                 |          |                |                 |
| ND                                         | 110  | – | ATV•B0C11Q4            | NSX250N Micrologic 2.2 250 | 250             | 3000 (4) | LC1F225●●      | 280             |
| HD                                         | 90   |   |                        | NSX250N Micrologic 2.2 250 | 250             | 3000 (4) | LC1F185●●      | 240             |
| ND                                         | 132  | – | ATV•B0C13Q4            | NSX400N Micrologic 2.3 400 | 400             | 4800 (4) | LC1F265●●      | 300             |
| HD                                         | 110  |   |                        | NSX250N Micrologic 2.2 250 | 250             | 3000 (4) | LC1F225●●      | 280             |
| ND                                         | 160  | – | ATV•B0C16Q4            | NSX400N Micrologic 2.3 400 | 400             | 4800 (4) | LC1F330●●      | 360             |
| HD                                         | 132  |   |                        | NSX400N Micrologic 2.3 400 | 400             | 4800 (4) | LC1F265●●      | 300             |
| ND                                         | 200  | – | ATV•B0C20Q4            | NSX630N Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500●●      | 580             |
| HD                                         | 160  |   |                        | NSX400N Micrologic 2.3 400 | 400             | 4800 (4) | LC1F400●●      | 430             |
| ND                                         | 250  | – | ATV•B0C25Q4            | NSX630N Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500●●      | 580             |
| HD                                         | 200  |   |                        | NSX630N Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500●●      | 580             |
| ND                                         | 315  | – | ATV•B0C31Q4            | NS800N Micrologic 5.0      | 800             | 1600 (5) | LC1F630●●      | 850             |
| HD                                         | 250  |   |                        | NSX630N Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500●●      | 580             |
| ND                                         | 355  | – | ATV•B0C35Q4            | NS800N Micrologic 5.0      | 800             | 1600 (5) | LC1F630●●      | 850             |
| HD                                         | 280  |   |                        | NS630bN Micrologic 5.0     | 630             | 1260 (5) | LC1F630●●      | 850             |
| ND                                         | 400  | – | ATV•B0C40Q4            | NS1000N Micrologic 5.0     | 1000            | 2000 (5) | LC1F1250●●     | 1060            |
| HD                                         | 315  |   |                        | NS800N Micrologic 5.0      | 800             | 1600 (5) | LC1F630●●      | 850             |
| ND                                         | 450  | – | ATV•B0C45Q4            | NS1000N Micrologic 5.0     | 1000            | 2000 (5) | LC1F1250●●     | 1060            |
| HD                                         | 355  |   |                        | NS800N Micrologic 5.0      | 800             | 1600 (5) | LC1F630●●      | 850             |
| ND                                         | 500  | – | ATV•B0C50Q4            | NS1250N Micrologic 5.0     | 1250            | 2500 (5) | LC1F1250●●     | 1060            |
| HD                                         | 400  |   |                        | NS1000N Micrologic 5.0     | 1000            | 2000 (5) | LC1F1250●●     | 1060            |
| ND                                         | 560  | – | ATV•B0C56Q4            | NS1250N Micrologic 5.0     | 1250            | 2500 (5) | LC1F1400●●     | 1190            |
| HD                                         | 450  |   |                        | NS1000N Micrologic 5.0     | 1000            | 2000 (5) | LC1F1250●●     | 1060            |
| ND                                         | 630  | – | ATV•B0C63Q4            | NS1600N Micrologic 5.0     | 1600            | 3200 (5) | LC1F1700●●     | 1450            |
| HD                                         | 500  |   |                        | NS1250N Micrologic 5.0     | 1250            | 2500 (5) | LC1F1400●●     | 1190            |
| ND                                         | 710  | – | ATV•B0C71Q4            | NS1600N Micrologic 5.0     | 1600            | 3200 (5) | LC1F2100●●     | 1750            |
| HD                                         | 560  |   |                        | NS1250N Micrologic 5.0     | 1250            | 2500 (5) | LC1F1400●●     | 1190            |
| ND                                         | 800  | – | ATV•B0C80Q4            | MTZ2 20H1 Micrologic 5.0 X | 2000            | 4000 (5) | LC1F2100●●     | 1750            |
| HD                                         | 630  |   |                        | NS1600N Micrologic 5.0     | 1600            | 3200 (5) | LC1F1700●●     | 1450            |
| ND                                         | 1000 | – | ATV•B0M10Q4            | 2x NS1250N Micrologic 5.0  | 1250            | 2500 (5) | 2x LC1F1250●●  | 1060            |
| HD                                         | 800  |   |                        | 2x NS1000N Micrologic 5.0  | 1000            | 2000 (5) | 2x LC1F1250●●  | 1060            |

(1) Replace the dot ● with «6» for ATV6A0 or «9» for ATV9A0.

(2) The type of circuit breaker is selected for Icu min. 50 kA.

(3) Replace the dots ●● with the control circuit voltage code indicated in the documentation for the contactor.

(4) Rated instantaneous short-circuit current Ii: fixed.

(5) Rated instantaneous short-circuit current Ii: setting 2.



NSX250N Micrologic 2.2 250

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LC1D115

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ATV6B0C11R4

| IEC standard motor starters                |      |   |                        |                            |                 |          |                |                 |
|--------------------------------------------|------|---|------------------------|----------------------------|-----------------|----------|----------------|-----------------|
| Nominal power                              |      |   | Drive<br>Reference (1) | Circuit breaker            |                 |          | Line contactor |                 |
| ND: Normal duty<br>HD: Heavy duty          |      |   |                        | Type (2)                   | Rating<br>@50°C | li       | Reference (3)  | Rating<br>@60°C |
| kW                                         | HP   |   |                        |                            | A               | A        | A              | A               |
| Three-phase supply voltage: 440 V 50/60 Hz |      |   |                        |                            |                 |          |                |                 |
| ND                                         | 110  | – | ATV•B0C11R4            | NSX250N Micrologic 2.2 250 | 250             | 3000 (4) | LC1D115••      | 200             |
| HD                                         | 90   |   |                        | NSX250N Micrologic 2.2 250 | 250             | 3000 (4) | LC1D115••      | 200             |
| ND                                         | 132  | – | ATV•B0C13R4            | NSX250N Micrologic 2.2 250 | 250             | 3000 (4) | LC1F185••      | 240             |
| HD                                         | 110  |   |                        | NSX250N Micrologic 2.2 250 | 250             | 3000 (4) | LC1D115••      | 200             |
| ND                                         | 160  | – | ATV•B0C16R4            | NSX400H Micrologic 2.3 400 | 400             | 4800 (4) | LC1F265••      | 300             |
| HD                                         | 132  |   |                        | NSX250N Micrologic 2.2 250 | 250             | 3000 (4) | LC1F185••      | 240             |
| ND                                         | 200  | – | ATV•B0C20R4            | NSX400H Micrologic 2.3 400 | 400             | 4800 (4) | LC1F330••      | 360             |
| HD                                         | 160  |   |                        | NSX400H Micrologic 2.3 400 | 400             | 4800 (4) | LC1F265••      | 300             |
| ND                                         | 250  | – | ATV•B0C25R4            | NSX630H Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500••      | 580             |
| HD                                         | 200  |   |                        | NSX400H Micrologic 2.3 400 | 400             | 4800 (4) | LC1F330••      | 360             |
| ND                                         | 315  | – | ATV•B0C31R4            | NSX630H Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500••      | 580             |
| HD                                         | 250  |   |                        | NSX630H Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500••      | 580             |
| ND                                         | 355  | – | ATV•B0C35R4            | NS630bN Micrologic 5.0     | 630             | 1260 (5) | LC1F630••      | 850             |
| HD                                         | 280  |   |                        | NSX630H Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500••      | 580             |
| ND                                         | 400  | – | ATV•B0C40R4            | NS800N Micrologic 5.0      | 800             | 1600 (5) | LC1F630••      | 850             |
| HD                                         | 315  |   |                        | NSX630H Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500••      | 580             |
| ND                                         | 450  | – | ATV•B0C45R4            | NS800N Micrologic 5.0      | 800             | 1600 (5) | LC1F630••      | 850             |
| HD                                         | 355  |   |                        | NS630bN Micrologic 5.0     | 630             | 1260 (5) | LC1F630••      | 850             |
| ND                                         | 500  | – | ATV•B0C50R4            | NS1000N Micrologic 5.0     | 1000            | 2000 (5) | LC1F1250••     | 1060            |
| HD                                         | 400  |   |                        | NS800N Micrologic 5.0      | 800             | 1600 (5) | LC1F630••      | 850             |
| ND                                         | 560  | – | ATV•B0C56R4            | NS1000N Micrologic 5.0     | 1000            | 2000 (5) | LC1F1250••     | 1060            |
| HD                                         | 450  |   |                        | NS800N Micrologic 5.0      | 800             | 1600 (5) | LC1F630••      | 850             |
| ND                                         | 630  | – | ATV•B0C63R4            | NS1250N Micrologic 5.0     | 1250            | 2500 (5) | LC1F1400••     | 1190            |
| HD                                         | 500  |   |                        | NS1000N Micrologic 5.0     | 1000            | 2000 (5) | LC1F1250••     | 1060            |
| ND                                         | 710  | – | ATV•B0C71R4            | NS1250N Micrologic 5.0     | 1250            | 2500 (5) | LC1F1700••     | 1450            |
| HD                                         | 560  |   |                        | NS1000N Micrologic 5.0     | 1000            | 2000 (5) | LC1F1250••     | 1060            |
| ND                                         | 800  | – | ATV•B0C80R4            | NS1600N Micrologic 5.0     | 1600            | 3200 (5) | LC1F1700••     | 1450            |
| HD                                         | 630  |   |                        | NS1250N Micrologic 5.0     | 1250            | 2500 (5) | LC1F1400••     | 1190            |
| ND                                         | 1000 | – | ATV•B0M10R4            | 2x NS1000N Micrologic 5.0  | 1000            | 2000 (5) | 2x LC1F1250••  | 1060            |
| HD                                         | 800  |   |                        | 2x NS800N Micrologic 5.0   | 800             | 1600 (5) | 2x LC1F630••   | 850             |

(1) Replace the dot • with «6» for ATV6A0 or «9» for ATV9A0.

(2) The type of circuit breaker is selected for Icu min. 50 kA.

(3) Replace the dots •• with the control circuit voltage code indicated in the documentation for the contactor.

(4) Rated instantaneous short-circuit current Ii: fixed.

(5) Rated instantaneous short-circuit current Ii: setting 2.





RLF36160U44A

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LC1F1700●●

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ATV9B0C80T4

| UL standard motor starters                 |    |      |                        |                 |                 |          |                |                 |
|--------------------------------------------|----|------|------------------------|-----------------|-----------------|----------|----------------|-----------------|
| Nominal power                              |    |      | Drive<br>Reference (1) | Circuit breaker |                 |          | Line contactor |                 |
| ND: Normal duty<br>HD: Heavy duty          |    |      |                        | Type (2)        | Rating<br>@50°C | li       | Reference (3)  | Rating<br>@60°C |
| kW                                         | HP |      |                        | A               | A               | A        | A              |                 |
| Three-phase supply voltage: 480 V 50/60 Hz |    |      |                        |                 |                 |          |                |                 |
| ND                                         | –  | 150  | ATV•B0C11T4            | JLL36250U31X    | 250             | 500 (4)  | LC1D115●●      | 200             |
| HD                                         |    | 125  |                        | JLL36250U31X    | 250             | 500 (4)  | LC1D115●●      | 200             |
| ND                                         | –  | 200  | ATV•B0C13T4            | JLL36250U31X    | 250             | 500 (4)  | LC1F225●●      | 280             |
| HD                                         |    | 150  |                        | JLL36250U31X    | 250             | 500 (4)  | LC1D115●●      | 200             |
| ND                                         | –  | 250  | ATV•B0C16T4            | LLL36400U31X    | 400             | 800 (4)  | LC1F330●●      | 360             |
| HD                                         |    | 200  |                        | JLL36250U31X    | 250             | 500 (4)  | LC1F225●●      | 280             |
| ND                                         | –  | 300  | ATV•B0C20T4            | LLL36400U31X    | 400             | 800 (4)  | LC1F400●●      | 430             |
| HD                                         |    | 250  |                        | LLL36400U31X    | 400             | 800 (4)  | LC1F330●●      | 360             |
| ND                                         | –  | 400  | ATV•B0C25T4            | LLL36600U31X    | 600             | 1200 (4) | LC1F500●●      | 580             |
| HD                                         |    | 300  |                        | LLL36400U31X    | 400             | 800 (4)  | LC1F400●●      | 430             |
| ND                                         | –  | 500  | ATV•B0C31T4            | PLL34080U31A    | 736             | 1600 (4) | LC1F630●●      | 850             |
| HD                                         |    | 400  |                        | LLL36600U31X    | 600             | 1200 (4) | LC1F500●●      | 580             |
| ND                                         | –  | 550  | ATV•B0C35T4            | PLL34080U31A    | 736             | 1600 (4) | LC1F630●●      | 850             |
| HD                                         |    | 450  |                        | LLL36600U44X    | 600             | 1200 (4) | LC1F500●●      | 580             |
| ND                                         | –  | 600  | ATV•B0C40T4            | PLL34080U31A    | 736             | 1600 (4) | LC1F630●●      | 850             |
| HD                                         |    | 500  |                        | PLL34080U31A    | 736             | 1600 (4) | LC1F630●●      | 850             |
| ND                                         | –  | 650  | ATV•B0C45T4            | PLL34100U44A    | 920             | 2000 (4) | LC1F630●●      | 850             |
| HD                                         |    | 550  |                        | PLL34080U31A    | 736             | 1600 (4) | LC1F630●●      | 850             |
| ND                                         | –  | 700  | ATV•B0C50T4            | PLL34100U44A    | 920             | 2000 (4) | LC1F630●●      | 850             |
| HD                                         |    | 600  |                        | PLL34080U31A    | 736             | 1600 (4) | LC1F630●●      | 850             |
| ND                                         | –  | 800  | ATV•B0C56T4            | PLL34120U44A    | 1104            | 2400 (4) | LC1F1250●●     | 1060            |
| HD                                         |    | 650  |                        | PLL34100U44A    | 920             | 2000 (4) | LC1F630●●      | 850             |
| ND                                         | –  | 900  | ATV•B0C63T4            | PLL34120U44A    | 1104            | 2400 (4) | LC1F1400●●     | 1190            |
| HD                                         |    | 700  |                        | PLL34100U44A    | 920             | 2000 (4) | LC1F630●●      | 850             |
| ND                                         | –  | 1000 | ATV•B0C71T4            | RLF36160U44A    | 1472            | 3200 (4) | LC1F1700●●     | 1450            |
| HD                                         |    | 800  |                        | PLL34120U44A    | 1104            | 2400 (4) | LC1F1250●●     | 1060            |
| ND                                         | –  | 1100 | ATV•B0C80T4            | RLF36160U44A    | 1472            | 3200 (4) | LC1F1700●●     | 1450            |
| HD                                         |    | 900  |                        | PLL34120U44A    | 1104            | 2400 (4) | LC1F1400●●     | 1190            |
| ND                                         | –  | 1400 | ATV•B0M10T4            | 2x PLL34100U44A | 920             | 2000 (4) | 2x LC1F630●●   | 850             |
| HD                                         |    | 1100 |                        | 2x PLL34080U31A | 736             | 1600 (4) | 2x LC1F630●●   | 850             |

(1) Replace the dot ● with «6» for ATV6A0 or «9» for ATV9A0.

(2) The type of circuit breaker is selected for Icu min. 50 kA.

(3) Replace the dots ●● with the control circuit voltage code indicated in the documentation for the contactor.

(4) Rated instantaneous short-circuit current li: fixed.

(5) Rated instantaneous short-circuit current li: setting 2.



LRL36600U31X

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LC1F500●

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ATV6A0C50T6

#### IEC and UL standard motor starters

| Nominal power<br>ND: Normal duty<br>HD: Heavy duty |    | Drive<br>Reference (1) | Circuit breaker            |                 |          | Line contactor |                 |
|----------------------------------------------------|----|------------------------|----------------------------|-----------------|----------|----------------|-----------------|
|                                                    |    |                        | Type (2)                   | Rating<br>@50°C | Ii       | Reference (3)  | Rating<br>@60°C |
| kW                                                 | HP |                        |                            | A               | A        | A              | A               |
| Three-phase supply voltage: 500 V 50/60 Hz         |    |                        |                            |                 |          |                |                 |
| ND 75                                              | —  | ATV●B0C11N6            | NSX160L Micrologic 2.2 160 | 160             | 2400 (4) | LC1D80●●       | 125             |
| HD 55                                              |    |                        | NSX100L Micrologic 2.2 100 | 100             | 1500 (4) | LC1D80●●       | 125             |
| ND 90                                              | —  | ATV●B0C13N6            | NSX160L Micrologic 2.2 160 | 160             | 2400 (4) | LC1D115●●      | 200             |
| HD 75                                              |    |                        | NSX160L Micrologic 2.2 160 | 160             | 2400 (4) | LC1D80●●       | 125             |
| ND 110                                             | —  | ATV●B0C16N6            | NSX250L Micrologic 2.2 250 | 250             | 3000 (4) | LC1D115●●      | 200             |
| HD 90                                              |    |                        | NSX160L Micrologic 2.2 160 | 160             | 2400 (4) | LC1D115●●      | 200             |
| ND 132                                             | —  | ATV●B0C20N6            | NSX250L Micrologic 2.2 250 | 250             | 3000 (4) | LC1F185●●      | 240             |
| HD 110                                             |    |                        | NSX250L Micrologic 2.2 250 | 250             | 3000 (4) | LC1D115●●      | 200             |
| ND 160                                             | —  | ATV●B0C25N6            | NSX400L Micrologic 2.3 400 | 400             | 4800 (4) | LC1F225●●      | 280             |
| HD 132                                             |    |                        | NSX250L Micrologic 2.2 250 | 250             | 3000 (4) | LC1F185●●      | 240             |
| ND 220                                             | —  | ATV●B0C31N6            | NSX400L Micrologic 2.3 400 | 400             | 4800 (4) | LC1F330●●      | 360             |
| HD 160                                             |    |                        | NSX400L Micrologic 2.3 400 | 400             | 4800 (4) | LC1F225●●      | 280             |
| ND 280                                             | —  | ATV●B0C40N6            | NSX630L Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500●●      | 580             |
| HD 220                                             |    |                        | NSX400L Micrologic 2.3 400 | 400             | 4800 (4) | LC1F330●●      | 360             |
| ND 355                                             | —  | ATV●B0C50N6            | NSX630L Micrologic 2.3 630 | 600             | 6900 (4) | LC1F630●●      | 850             |
| HD 280                                             |    |                        | NSX630L Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500●●      | 580             |
| ND 450                                             | —  | ATV●B0C63N6            | NS800H Micrologic 5.0      | 800             | 1600 (5) | LC1F630●●      | 850             |
| HD 355                                             |    |                        | NSX630L Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500●●      | 580             |
| ND 560                                             | —  | ATV●B0C80N6            | NS1000H Micrologic 5.0     | 1000            | 2000 (5) | LC1F1250●●     | 1060            |
| HD 450                                             |    |                        | NS800H Micrologic 5.0      | 800             | 1600 (5) | LC1F630●●      | 850             |
| ND 710                                             | —  | ATV●B0M10N6            | NS1250H Micrologic 5.0     | 1250            | 2500 (5) | LC1F1400●●     | 1190            |
| HD 560                                             |    |                        | NS1000H Micrologic 5.0     | 1000            | 2000 (5) | LC1F1250●●     | 1060            |
| ND 800                                             | —  | ATV●B0M12N6            | NS1250H Micrologic 5.0     | 1250            | 2500 (5) | LC1F1700●●     | 1450            |
| HD 710                                             |    |                        | NS1250H Micrologic 5.0     | 1250            | 2500 (5) | LC1F1400●●     | 1190            |

#### Three-phase supply voltage: 600 V 50/60 Hz

|      |      |             |                           |      |          |            |      |
|------|------|-------------|---------------------------|------|----------|------------|------|
| ND — | 125  | ATV●B0C11T6 | HRL36150U31X              | 150  | 300 (4)  | LC1D115●●  | 200  |
| HD   | 100  |             | HRL36150U31X              | 150  | 300 (4)  | LC1D80●●   | 125  |
| ND — | 150  | ATV●B0C13T6 | JRL36250U31X              | 250  | 500 (4)  | LC1D115●●  | 200  |
| HD   | 125  |             | HRL36150U31X              | 150  | 300 (4)  | LC1D115●●  | 200  |
| ND — | 175  | ATV●B0C16T6 | JRL36250U31X              | 250  | 500 (4)  | LC1D115●●  | 200  |
| HD   | 150  |             | JRL36250U31X              | 250  | 500 (4)  | LC1D115●●  | 200  |
| ND — | 200  | ATV●B0C20T6 | JRL36250U31X              | 250  | 500 (4)  | LC1F185●●  | 240  |
| HD   | 175  |             | JRL36250U31X              | 250  | 500 (4)  | LC1D115●●  | 200  |
| ND — | 250  | ATV●B0C25T6 | JRL36250U31X              | 250  | 500 (4)  | LC1F225●●  | 280  |
| HD   | 200  |             | JRL36250U31X              | 250  | 500 (4)  | LC1D115●●  | 200  |
| ND — | 350  | ATV●B0C31T6 | LRL36400U31X              | 400  | 800 (4)  | LC1F330●●  | 360  |
| HD   | 250  |             | JRL36250U31X              | 250  | 500 (4)  | LC1F225●●  | 280  |
| ND — | 450  | ATV●B0C40T6 | LRL36600U31X              | 600  | 1200 (4) | LC1F500●●  | 580  |
| HD   | 350  |             | LRL36400U31X              | 400  | 800 (4)  | LC1F330●●  | 360  |
| ND — | 550  | ATV●B0C50T6 | LRL36600U31X              | 600  | 1200 (4) | LC1F500●●  | 580  |
| HD   | 450  |             | LRL36600U31X              | 600  | 1200 (4) | LC1F500●●  | 580  |
| ND — | 650  | ATV●B0C63T6 | MTZ2 08L Micrologic 3.0 X | 736  | 1600 (4) | LC1F630●●  | 850  |
| HD   | 550  |             | LRL36600U31X              | 600  | 1200 (4) | LC1F500●●  | 580  |
| ND — | 800  | ATV●B0C80T6 | MTZ2 12L Micrologic 6.0 X | 1104 | 2400 (4) | LC1F630●●  | 850  |
| HD   | 650  |             | MTZ2 08L Micrologic 3.0 X | 736  | 1600 (4) | LC1F630●●  | 850  |
| ND — | 1000 | ATV●B0M10T6 | MTZ2 12L Micrologic 6.0 X | 1104 | 2400 (4) | LC1F1250●● | 1060 |
| HD   | 800  |             | MTZ2 12L Micrologic 6.0 X | 1104 | 2400 (4) | LC1F630●●  | 850  |
| ND — | 1200 | ATV●B0M12T6 | MTZ2 16L Micrologic 6.0 X | 1472 | 3200 (4) | LC1F1400●● | 1190 |
| HD   | 1000 |             | MTZ2 12L Micrologic 6.0 X | 1104 | 2400 (4) | LC1F1250●● | 1060 |

(1) Replace the dot ● with «6» for ATV6A0 or «9» for ATV9A0.

(2) The type of circuit breaker is selected for Icu min. 50 kA.

(3) Replace the dots ●● with the control circuit voltage code indicated in the documentation for the contactor.

(4) Rated instantaneous short-circuit current Ii: fixed.

(5) Rated instantaneous short-circuit current Ii: setting 2.



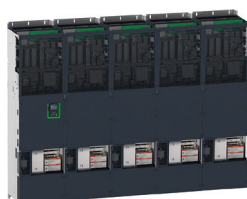
MTZ2 16H1

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LC1F1700

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ATV6B0M10Q6

#### IEC standard motor starters

| Nominal power<br>ND: Normal duty<br>HD: Heavy duty |    | Drive<br>Reference (1) | Circuit breaker              |                 |          | Line contactor |                 |
|----------------------------------------------------|----|------------------------|------------------------------|-----------------|----------|----------------|-----------------|
|                                                    |    |                        | Type (2)                     | Rating<br>@50°C | li       | Reference (3)  | Rating<br>@60°C |
| kW                                                 | HP |                        |                              | A               | A        | A              | A               |
| Three-phase supply voltage: 690 V 50/60 Hz         |    |                        |                              |                 |          |                |                 |
| ND 110                                             | —  | ATV•B0C11Q6            | NSX250HB1 Micrologic 2.2 160 | 160             | 2400 (4) | LC1D115••      | 200             |
| HD 90                                              |    |                        | NSX250HB1 Micrologic 2.2 160 | 160             | 2400 (4) | LC1D80••       | 125             |
| ND 132                                             | —  | ATV•B0C13Q6            | NSX250HB1 Micrologic 2.2 160 | 160             | 2400 (4) | LC1D115••      | 200             |
| HD 110                                             |    |                        | NSX250HB1 Micrologic 2.2 160 | 160             | 2400 (4) | LC1D115••      | 200             |
| ND 160                                             | —  | ATV•B0C16Q6            | NSX250HB1 Micrologic 2.2 250 | 250             | 3000 (4) | LC1D115••      | 200             |
| HD 132                                             |    |                        | NSX250HB1 Micrologic 2.2 160 | 160             | 2400 (4) | LC1D115••      | 200             |
| ND 200                                             | —  | ATV•B0C20Q6            | NSX250HB1 Micrologic 2.2 250 | 250             | 3000 (4) | LC1F185••      | 240             |
| HD 160                                             |    |                        | NSX250HB1 Micrologic 2.2 250 | 250             | 3000 (4) | LC1D115••      | 200             |
| ND 250                                             | —  | ATV•B0C25Q6            | NSX400HB1 Micrologic 2.3 400 | 400             | 4800 (4) | LC1F265••      | 300             |
| HD 200                                             |    |                        | NSX250HB1 Micrologic 2.2 250 | 250             | 3000 (4) | LC1F185••      | 240             |
| ND 315                                             | —  | ATV•B0C31Q6            | NSX400HB1 Micrologic 2.3 400 | 400             | 4800 (4) | LC1F330••      | 360             |
| HD 250                                             |    |                        | NSX400HB1 Micrologic 2.3 400 | 400             | 4800 (4) | LC1F265••      | 300             |
| ND 400                                             | —  | ATV•B0C40Q6            | NSX630HB1 Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500••      | 580             |
| HD 315                                             |    |                        | NSX400HB1 Micrologic 2.3 400 | 400             | 4800 (4) | LC1F330••      | 360             |
| ND 500                                             | —  | ATV•B0C50Q6            | NSX630HB1 Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500••      | 580             |
| HD 400                                             |    |                        | NSX630HB1 Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500••      | 580             |
| ND 630                                             | —  | ATV•B0C63Q6            | NS800LB Micrologic 5.0       | 800             | 1600 (5) | LC1F630••      | 850             |
| HD 500                                             |    |                        | NSX630HB1 Micrologic 2.3 630 | 600             | 6900 (4) | LC1F500••      | 580             |
| ND 800                                             | —  | ATV•B0C80Q6            | MTZ2 10H1 Micrologic 5.0 X   | 1000            | 2000 (5) | LC1F1250••     | 1060            |
| HD 630                                             |    |                        | NS800LB Micrologic 5.0       | 800             | 1600 (5) | LC1F630••      | 850             |
| ND 1000                                            | —  | ATV•B0M10Q6            | MTZ2 12H1 Micrologic 5.0 X   | 1250            | 2500 (5) | LC1F1400••     | 1190            |
| HD 800                                             |    |                        | MTZ2 10H1 Micrologic 5.0 X   | 1000            | 2000 (5) | LC1F1250••     | 1060            |
| ND 1200                                            | —  | ATV•B0M12Q6            | MTZ2 16H1 Micrologic 5.0 X   | 1600            | 3200 (5) | LC1F1700••     | 1450            |
| HD 1000                                            |    |                        | MTZ2 12H1 Micrologic 5.0 X   | 1250            | 2500 (5) | LC1F1400••     | 1190            |

(1) Replace the dot • with «6» for ATV6A0 or «9» for ATV9A0.

(2) The type of circuit breaker is selected for Icu min. 50 kA.

(3) Replace the dots •• with the control circuit voltage code indicated in the documentation for the contactor.

(4) Rated instantaneous short-circuit current li: fixed.

(5) Rated instantaneous short-circuit current li: setting 2.



NS1000N Micrologic 5.0

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LC1F1250●●

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ATV9L0C50Q4

#### IEC standard motor starters

| Nominal power                              |      |    | Drive           | Circuit breaker            |                 |          | Line contactor |                 |
|--------------------------------------------|------|----|-----------------|----------------------------|-----------------|----------|----------------|-----------------|
| ND: Normal duty<br>HD: Heavy duty          |      |    | Reference (1)   | Type (2)                   | Rating<br>@50°C | Ii       | Reference (3)  | Rating<br>@60°C |
| kW                                         |      | HP |                 |                            | A               | A        | A              | A               |
| Three-phase supply voltage: 400 V 50/60 Hz |      |    |                 |                            |                 |          |                |                 |
| ND                                         | 132  | –  | ATV•L0C13Q4     | NSX400N Micrologic 2.3 400 | 400             | 4800 (5) | LC1F330●●      | 360             |
| HD                                         | 110  |    |                 | NSX400N Micrologic 2.3 400 | 400             | 4800 (5) | LC1F225●●      | 280             |
| ND                                         | 160  | –  | ATV•L0C16Q4     | NSX400N Micrologic 2.3 400 | 400             | 4800 (5) | LC1F330●●      | 360             |
| HD                                         | 132  |    |                 | NSX400N Micrologic 2.3 400 | 400             | 4800 (5) | LC1F330●●      | 360             |
| ND                                         | 200  | –  | ATV•L0C20Q4     | NSX630N Micrologic 2.3 630 | 600             | 6900 (5) | LC1F500●●      | 580             |
| HD                                         | 160  |    |                 | NSX400N Micrologic 2.3 400 | 400             | 4800 (5) | LC1F330●●      | 360             |
| ND                                         | 250  | –  | ATV•L0C25Q4     | NSX630N Micrologic 2.3 630 | 600             | 6900 (5) | LC1F500●●      | 580             |
| HD                                         | 200  |    |                 | NSX630N Micrologic 2.3 630 | 600             | 6900 (5) | LC1F500●●      | 580             |
| ND                                         | 315  | –  | ATV•L0C31Q4     | NS800N Micrologic 5.0      | 800             | 1600 (6) | LC1F630●●      | 850             |
| HD                                         | 250  |    |                 | NSX630N Micrologic 2.3 630 | 600             | 6900 (5) | LC1F500●●      | 580             |
| ND                                         | 400  | –  | ATV•L0C40Q4     | NS1000N Micrologic 5.0     | 1000            | 2000 (6) | LC1F1250●●     | 1060            |
| HD                                         | 315  |    |                 | NS800N Micrologic 5.0      | 800             | 1600 (6) | LC1F630●●      | 850             |
| ND                                         | 500  | –  | ATV•L0C50Q4     | NS1250N Micrologic 5.0     | 1250            | 2500 (6) | LC1F1250●●     | 1060            |
| HD                                         | 400  |    |                 | NS1000N Micrologic 5.0     | 1000            | 2000 (6) | LC1F1250●●     | 1060            |
| ND                                         | 630  | –  | ATV•L0C63Q4     | NS1600N Micrologic 5.0     | 1600            | 3200 (6) | LC1F1700●●     | 1450            |
| HD                                         | 500  |    |                 | NS1250N Micrologic 5.0     | 1250            | 2500 (6) | LC1F1250●●     | 1060            |
| ND                                         | 800  | –  | ATV•L0C80Q4     | MTZ2 20H1 Micrologic 5.0 X | 2000            | 4000 (6) | LC1F2100●●     | 1750            |
| HD                                         | 630  |    |                 | NS1600N Micrologic 5.0     | 1600            | 3200 (6) | LC1F1700●●     | 1450            |
| ND                                         | 900  | –  | ATV•L0C90Q4     | MTZ2 20H1 Micrologic 5.0 X | 2000            | 4000 (6) | LC1F2600●●     | 2600            |
| HD                                         | 710  |    |                 | NS1600N Micrologic 5.0     | 1600            | 3200 (6) | LC1F2100●●     | 1750            |
| ND                                         | 1000 | –  | ATV•L0M10Q4 (4) | MTZ2 20H1 Micrologic 5.0 X | 2000            | 4000 (6) | LC1F2100●●     | 1750            |
| HD                                         | 800  |    | ATV•L0M10Q4     | MTZ2 20H1 Micrologic 5.0 X | 2000            | 4000 (6) | LC1F2100●●     | 1750            |
| ND                                         | 1200 | –  | ATV•L0M12Q4 (4) | MTZ2 25H1 Micrologic 5.0 X | 2500            | 5000 (6) | LC1F2600●●     | 2600            |
| HD                                         | 1000 |    |                 | MTZ2 20H1 Micrologic 5.0 X | 2000            | 4000 (6) | LC1F2100●●     | 1750            |
| ND                                         | 1500 | –  | ATV•L0M15Q4 (4) | MTZ2 32H1 Micrologic 5.0 X | 3200            | 6400 (6) | LC1F2600●●     | 2600            |
| HD                                         | 1200 |    |                 | MTZ2 25H1 Micrologic 5.0 X | 2500            | 5000 (6) | LC1F2600●●     | 2600            |
| ND                                         | 1800 | –  | ATV•L0M18Q4 (4) | MTZ2 32H1 Micrologic 5.0 X | 3200            | 6400 (6) | 3 x LC1F1700●● | 3262            |
| HD                                         | 1400 |    |                 | MTZ2 25H1 Micrologic 5.0 X | 2500            | 5000 (6) | LC1F2600●●     | 2600            |

(1) Replace the dot ● with «6» for ATV6A0 or «9» for ATV9A0.

(2) The type of circuit breaker is selected for Icu min. 50 kA.

(3) Replace the dots ●● with the control circuit voltage code indicated in the documentation for the contactor.

(4) A thermal test is required to fulfill IEC 61439-1.

(5) Rated instantaneous short-circuit current Ii: fixed.

(6) Rated instantaneous short-circuit current Ii: setting 2.



NSX400H Micrologic 2.3 400

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LC1F265●●

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ATV9L0C13R4

#### IEC standard motor starters

| Nominal power<br>ND: Normal duty<br>HD: Heavy duty |    | Drive<br>Reference (1) | Circuit breaker            |                 |          | Line contactor |                 |
|----------------------------------------------------|----|------------------------|----------------------------|-----------------|----------|----------------|-----------------|
|                                                    |    |                        | Type (2)                   | Rating<br>@50°C | li       | Reference (3)  | Rating<br>@60°C |
| kW                                                 | HP |                        |                            | A               | A        | A              | A               |
| Three-phase supply voltage: 440 V 50/60 Hz         |    |                        |                            |                 |          |                |                 |
| ND 132                                             | —  | ATV•L0C13R4            | NSX400H Micrologic 2.3 400 | 400             | 4800 (5) | LC1F265●●      | 300             |
| HD 110                                             |    |                        | NSX250N Micrologic 2.2 250 | 250             | 3000 (5) | LC1F225●●      | 280             |
| ND 160                                             | —  | ATV•L0C16R4            | NSX400H Micrologic 2.3 400 | 400             | 4800 (5) | LC1F330●●      | 360             |
| HD 132                                             |    |                        | NSX400H Micrologic 2.3 400 | 400             | 4800 (5) | LC1F265●●      | 300             |
| ND 200                                             | —  | ATV•L0C20R4            | NSX630H Micrologic 2.3 630 | 600             | 6900 (5) | LC1F400●●      | 430             |
| HD 160                                             |    |                        | NSX400H Micrologic 2.3 400 | 400             | 4800 (5) | LC1F330●●      | 360             |
| ND 250                                             | —  | ATV•L0C25R4            | NSX630H Micrologic 2.3 630 | 600             | 6900 (5) | LC1F500●●      | 580             |
| HD 200                                             |    |                        | NSX630H Micrologic 2.3 630 | 600             | 6900 (5) | LC1F400●●      | 430             |
| ND 315                                             | —  | ATV•L0C31R4            | NS630bN Micrologic 5.0     | 630             | 1260 (6) | LC1F630●●      | 850             |
| HD 250                                             |    |                        | NSX630H Micrologic 2.3 630 | 600             | 6900 (5) | LC1F500●●      | 580             |
| ND 400                                             | —  | ATV•L0C40R4            | NS800N Micrologic 5.0      | 800             | 1600 (6) | LC1F630●●      | 850             |
| HD 315                                             |    |                        | NS800N Micrologic 5.0      | 800             | 1600 (6) | LC1F630●●      | 850             |
| ND 500                                             | —  | ATV•L0C50R4            | NS1000N Micrologic 5.0     | 1000            | 2000 (6) | LC1F1250●●     | 1060            |
| HD 400                                             |    |                        | NS800N Micrologic 5.0      | 800             | 1600 (6) | LC1F630●●      | 850             |
| ND 630                                             | —  | ATV•L0C63R4            | NS1250N Micrologic 5.0     | 1250            | 2500 (6) | LC1F1700●●     | 1450            |
| HD 500                                             |    |                        | NS1000N Micrologic 5.0     | 1000            | 2000 (6) | LC1F1250●●     | 1060            |
| ND 800                                             | —  | ATV•L0C80R4            | NS1600N Micrologic 5.0     | 1600            | 3200 (6) | LC1F2100●●     | 1750            |
| HD 630                                             |    |                        | NS1250N Micrologic 5.0     | 1250            | 2500 (6) | LC1F1700●●     | 1450            |
| ND 900                                             | —  | ATV•L0C90R4            | MTZ2 20H1 Micrologic 5.0 X | 2000            | 4000 (6) | LC1F2100●●     | 1750            |
| HD 710                                             |    |                        | NS1600N Micrologic 5.0     | 1600            | 3200 (6) | LC1F1700●●     | 1450            |
| ND 1000                                            | —  | ATV•L0M10R4 (4)        | MTZ2 20H1 Micrologic 5.0 X | 2000            | 4000 (6) | LC1F2600●●     | 2600            |
| HD 800                                             |    | ATV•L0M10R4            | NS1600N Micrologic 5.0     | 1600            | 3200 (6) | LC1F2100●●     | 1750            |
| ND 1200                                            | —  | ATV•L0M12R4 (4)        | MTZ2 20H1 Micrologic 5.0 X | 2000            | 4000 (6) | LC1F2600●●     | 2600            |
| HD 1000                                            |    | ATV•L0M12R4            | MTZ2 20H1 Micrologic 5.0 X | 2000            | 4000 (6) | LC1F2600●●     | 2600            |
| ND 1500                                            | —  | ATV•L0M15R4 (4)        | MTZ2 25H1 Micrologic 5.0 X | 2500            | 5000 (6) | LC1F2600●●     | 2600            |
| HD 1200                                            |    |                        | MTZ2 20H1 Micrologic 5.0 X | 2000            | 4000 (6) | LC1F2600●●     | 2600            |
| ND 1800                                            | —  | ATV•L0M18R4 (4)        | MTZ2 32H1 Micrologic 5.0 X | 3200            | 6400 (6) | 3 x LC1F1700●● | 3262            |
| HD 1400                                            |    |                        | MTZ2 25H1 Micrologic 5.0 X | 2500            | 5000 (6) | LC1F2600●●     | 2600            |

(1) Replace the dot ● with «6» for ATV6A0 or «9» for ATV9A0.

(2) The type of circuit breaker is selected for Icu min. 50 kA.

(3) Replace the dots ●● with the control circuit voltage code indicated in the documentation for the contactor.

(4) A thermal test is required to fulfill IEC 61439-1.

(5) Rated instantaneous short-circuit current li: fixed.

(6) Rated instantaneous short-circuit current li: setting 2.





RLF36160U44A

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LC1F1400●●

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ATV6L0C80T4

| UL standard motor starters                 |   |      |                        |                           |  |                 |                |                |                 |
|--------------------------------------------|---|------|------------------------|---------------------------|--|-----------------|----------------|----------------|-----------------|
| Nominal power                              |   |      | Drive<br>Reference (1) | Circuit breaker           |  |                 | Line contactor |                |                 |
| ND: Normal duty<br>HD: Heavy duty          |   |      |                        | Type (2)                  |  | Rating<br>@50°C | li             | Reference (3)  | Rating<br>@60°C |
| kW    HP                                   |   |      |                        |                           |  | A               | A              | A              | A               |
| Three-phase supply voltage: 480 V 50/60 Hz |   |      |                        |                           |  |                 |                |                |                 |
| ND                                         | — | 200  | ATV•L0C13T4            | LLL36400U31X              |  | 400             | 800 (4)        | LC1F265••      | 300             |
| HD                                         |   | 150  |                        | JLL36250U31X              |  | 250             | 500 (4)        | LC1F185••      | 240             |
| ND                                         | — | 250  | ATV•L0C16T4            | LLL36400U31X              |  | 400             | 800 (4)        | LC1F330••      | 360             |
| HD                                         |   | 200  |                        | LLL36400U31X              |  | 400             | 800 (4)        | LC1F265••      | 300             |
| ND                                         | — | 300  | ATV•L0C20T4            | LLL36600U31X              |  | 600             | 1200 (4)       | LC1F400••      | 430             |
| HD                                         |   | 250  |                        | LLL36400U31X              |  | 400             | 800 (4)        | LC1F330••      | 360             |
| ND                                         | — | 400  | ATV•L0C25T4            | LLL36600U31X              |  | 600             | 1200 (4)       | LC1F500••      | 580             |
| HD                                         |   | 300  |                        | LLL36600U31X              |  | 600             | 1200 (4)       | LC1F400••      | 430             |
| ND                                         | — | 500  | ATV•L0C31T4            | PLL34080U31A              |  | 736             | 1600 (4)       | LC1F630••      | 850             |
| HD                                         |   | 400  |                        | LLL36600U31X              |  | 600             | 1200 (4)       | LC1F500••      | 580             |
| ND                                         | — | 600  | ATV•L0C40T4            | PLL34100U44A              |  | 920             | 2000 (4)       | LC1F630••      | 850             |
| HD                                         |   | 500  |                        | PLL34080U31A              |  | 736             | 1600 (4)       | LC1F630••      | 850             |
| ND                                         | — | 700  | ATV•L0C50T4            | PLL34120U44A              |  | 1104            | 2400 (4)       | LC1F1250••     | 1060            |
| HD                                         |   | 600  |                        | PLL34100U44A              |  | 920             | 2000 (4)       | LC1F630••      | 850             |
| ND                                         | — | 900  | ATV•L0C63T4            | RLF36160U44A              |  | 1472            | 3200 (4)       | LC1F1400••     | 1190            |
| HD                                         |   | 700  |                        | PLL34120U44A              |  | 1104            | 2400 (4)       | LC1F1250••     | 1060            |
| ND                                         | — | 1100 | ATV•L0C80T4            | RLF36160U44A              |  | 1472            | 3200 (4)       | LC1F1700••     | 1450            |
| HD                                         |   | 900  |                        | RLF36160U44A              |  | 1472            | 3200 (4)       | LC1F1400••     | 1190            |
| ND                                         | — | 1300 | ATV•L0C90T4            | RLF36200U44A              |  | 1840            | 4000 (4)       | LC1F2100••     | 1750            |
| HD                                         |   | 1000 |                        | RLF36160U44A              |  | 1472            | 3200 (4)       | LC1F1700••     | 1450            |
| ND                                         | — | 1400 | ATV•L0M10T4            | RLF36200U44A              |  | 1840            | 4000 (4)       | LC1F2600••     | 2600            |
| HD                                         |   | 1100 |                        | RLF36160U44A              |  | 1472            | 3200 (4)       | LC1F1700••     | 1450            |
| ND                                         | — | 1700 | ATV•L0M12T4            | RLF36250U44A              |  | 2300            | 5000 (4)       | LC1F2600••     | 2600            |
| HD                                         |   | 1400 |                        | RLF36200U44A              |  | 1840            | 4000 (4)       | LC1F2600••     | 2600            |
| ND                                         | — | 2200 | ATV•L0M15T4            | MTZ3 40H Micrologic 6.0 X |  | 3680            | 8000 (4)       | 3 x LC1F1700•• | 3262            |
| HD                                         |   | 1700 |                        | RLF36250U44A              |  | 2300            | 5000 (4)       | LC1F2600••     | 2600            |
| ND                                         | — | 2500 | ATV•L0M18T4            | MTZ3 40H Micrologic 6.0 X |  | 3680            | 8000 (4)       | 3 x LC1F1700•• | 3262            |
| HD                                         |   | 2000 |                        | RLF36300U44A              |  | 2760            | 6000 (4)       | LC1F2600••     | 2600            |

(1) Replace the dot ● with «6» for ATV6A0 or «9» for ATV9A0.

(2) The type of circuit breaker is selected for Icu min. 50 kA.

(3) Replace the dots ●● with the control circuit voltage code indicated in the documentation for the contactor.

(4) Rated instantaneous short-circuit current li: setting 2.



MTZ2 20H1

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LC1F2600●●

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ATV6L0M18N6

#### IEC standard motor starters

| Nominal power                              |      |   | Drive<br>Reference (1) | Circuit breaker            |                 |          | Line contactor |                 |
|--------------------------------------------|------|---|------------------------|----------------------------|-----------------|----------|----------------|-----------------|
| ND: Normal duty<br>HD: Heavy duty          |      |   |                        | Type (2)                   | Rating<br>@50°C | Ii       | Reference (3)  | Rating<br>@60°C |
| kW    HP                                   |      |   |                        |                            | A               | A        | A              | A               |
| Three-phase supply voltage: 500 V 50/60 Hz |      |   |                        |                            |                 |          |                |                 |
| ND                                         | 132  | – | ATV•L0C20N6            | NSX400H Micrologic 2.3 400 | 400             | 4800 (5) | LC1F265••      | 300             |
| HD                                         | 110  |   |                        | NSX250N Micrologic 2.2 250 | 250             | 3000 (5) | LC1F225••      | 280             |
| ND                                         | 200  | – | ATV•L0C28N6            | NSX400H Micrologic 2.3 400 | 400             | 4800 (5) | LC1F330••      | 360             |
| HD                                         | 160  |   |                        | NSX400H Micrologic 2.3 400 | 400             | 4800 (5) | LC1F265••      | 300             |
| ND                                         | 220  | – | ATV•L0C31N6            | NSX630H Micrologic 2.3 630 | 600             | 6900 (5) | LC1F400••      | 430             |
| HD                                         | 180  |   |                        | NSX400H Micrologic 2.3 400 | 400             | 4800 (5) | LC1F330••      | 360             |
| ND                                         | 250  | – | ATV•L0C40N6            | NSX630H Micrologic 2.3 630 | 600             | 6900 (5) | LC1F500••      | 580             |
| HD                                         | 220  |   |                        | NSX630H Micrologic 2.3 630 | 600             | 6900 (5) | LC1F400••      | 430             |
| ND                                         | 315  | – | ATV•L0C45N6            | NS630bN Micrologic 5.0     | 630             | 1260 (5) | LC1F630••      | 850             |
| HD                                         | 250  |   |                        | NSX630H Micrologic 2.3 630 | 600             | 6900 (5) | LC1F500••      | 580             |
| ND                                         | 400  | – | ATV•L0C56N6            | NS800N Micrologic 5.0      | 800             | 1600 (6) | LC1F630••      | 850             |
| HD                                         | 315  |   |                        | NS800N Micrologic 5.0      | 800             | 1600 (6) | LC1F630••      | 850             |
| ND                                         | 500  | – | ATV•L0C71N6            | NS1000N Micrologic 5.0     | 1000            | 2000 (6) | LC1F1250••     | 1060            |
| HD                                         | 400  |   |                        | NS800N Micrologic 5.0      | 800             | 1600 (6) | LC1F630••      | 850             |
| ND                                         | 630  | – | ATV•L0C90N6            | NS1250N Micrologic 5.0     | 1250            | 2500 (6) | LC1F1700••     | 1450            |
| HD                                         | 500  |   |                        | NS1000N Micrologic 5.0     | 1000            | 2000 (6) | LC1F1250••     | 1060            |
| ND                                         | 800  | – | ATV•L0M12N6            | NS1600N Micrologic 5.0     | 1600            | 3200 (6) | LC1F2100••     | 1750            |
| HD                                         | 710  |   |                        | NS1250N Micrologic 5.0     | 1250            | 2500 (6) | LC1F1700••     | 1450            |
| ND                                         | 1000 | – | ATV•L0M14N6            | MTZ2 20H1 Micrologic 5.0 X | 2000            | 4000 (6) | LC1F2100••     | 1750            |
| HD                                         | 800  |   |                        | NS1600N Micrologic 5.0     | 1600            | 3200 (6) | LC1F1700••     | 1450            |
| ND                                         | 1200 | – | ATV•L0M16N6 (4)        | MTZ2 20H1 Micrologic 5.0 X | 2000            | 4000 (6) | LC1F2600••     | 2600            |
| HD                                         | 900  |   | ATV•L0M16N6            | NS1600N Micrologic 5.0     | 1600            | 3200 (6) | LC1F2100••     | 1750            |
| ND                                         | 1300 | – | ATV•L0M18N6 (4)        | MTZ2 20H1 Micrologic 5.0 X | 2000            | 4000 (6) | LC1F2600••     | 2600            |
| HD                                         | 1000 |   | ATV•L0M18N6            | MTZ2 20H1 Micrologic 5.0 X | 2000            | 4000 (6) | LC1F2600••     | 2600            |
| ND                                         | 1600 | – | ATV•L0M22N6 (4)        | MTZ2 25H1 Micrologic 5.0 X | 2500            | 5000 (6) | LC1F2600••     | 2600            |
| HD                                         | 1200 |   |                        | MTZ2 20H1 Micrologic 5.0 X | 2000            | 4000 (6) | LC1F2600••     | 2600            |
| ND                                         | 1900 | – | ATV•L0M26N6 (4)        | MTZ2 32H1 Micrologic 5.0 X | 3200            | 6400 (6) | 3 x LC1F1700•• | 3262            |
| HD                                         | 1500 |   |                        | MTZ2 25H1 Micrologic 5.0 X | 2500            | 5000 (6) | LC1F2600••     | 2600            |

(1) Replace the dot ● with «6» for ATV6A0 or «9» for ATV9A0.

(2) The type of circuit breaker is selected for Icu min. 50 kA.

(3) Replace the dots ●● with the control circuit voltage code indicated in the documentation for the contactor.

(4) A thermal test is required to fulfill IEC 61439-1.

(5) Rated instantaneous short-circuit current Ii: fixed.

(6) Rated instantaneous short-circuit current Ii: setting 2.



MTZ2 12L

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LC1F1250●●

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ATV6L0M12T6

### UL standard motor starters

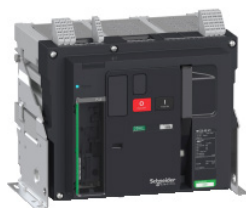
| Nominal power                              |    |      | Drive         | Circuit breaker           |                 |          | Line contactor |                 |
|--------------------------------------------|----|------|---------------|---------------------------|-----------------|----------|----------------|-----------------|
| ND: Normal duty<br>HD: Heavy duty          |    |      | Reference (1) | Type (2)                  | Rating<br>@50°C | li       | Reference (3)  | Rating<br>@60°C |
| kW                                         | HP |      |               |                           | A               | A        | A              | A               |
| Three-phase supply voltage: 600 V 50/60 Hz |    |      |               |                           |                 |          |                |                 |
| ND                                         | —  | 200  | ATV•L0C20T6   | JRL36250U31X              | 250             | 500 (4)  | LC1F185••      | 240             |
| HD                                         | —  | 150  |               | JRL36250U31X              | 250             | 500 (4)  | LC1D115••      | 200             |
| ND                                         | —  | 300  | ATV•L0C28T6   | LRL36400U31X              | 400             | 800 (4)  | LC1F330••      | 360             |
| HD                                         | —  | 200  |               | JRL36250U31X              | 250             | 500 (4)  | LC1F185••      | 240             |
| ND                                         | —  | 350  | ATV•L0C31T6   | LRL36400U31X              | 400             | 800 (4)  | LC1F400••      | 430             |
| HD                                         | —  | 250  |               | LRL36400U31X              | 400             | 800 (4)  | LC1F225••      | 280             |
| ND                                         | —  | 450  | ATV•L0C40T6   | LRL36600U31X              | 600             | 1200 (4) | LC1F500••      | 580             |
| HD                                         | —  | 350  |               | LRL36400U31X              | 400             | 800 (4)  | LC1F400••      | 430             |
| ND                                         | —  | 500  | ATV•L0C45T6   | LRL36600U31X              | 600             | 1200 (4) | LC1F500••      | 580             |
| HD                                         | —  | 400  |               | LRL36600U31X              | 600             | 1200 (4) | LC1F400••      | 430             |
| ND                                         | —  | 600  | ATV•L0C56T6   | MTZ2 08L Micrologic 3.0 X | 736             | 1600 (4) | LC1F630••      | 850             |
| HD                                         | —  | 500  |               | LRL36600U31X              | 600             | 1200 (4) | LC1F500••      | 580             |
| ND                                         | —  | 700  | ATV•L0C71T6   | MTZ2 12L Micrologic 6.0 X | 1104            | 2400 (4) | LC1F630••      | 850             |
| HD                                         | —  | 600  |               | MTZ2 08L Micrologic 3.0 X | 736             | 1600 (4) | LC1F630••      | 850             |
| ND                                         | —  | 900  | ATV•L0C90T6   | MTZ2 12L Micrologic 6.0 X | 1104            | 2400 (4) | LC1F1250       | 1060            |
| HD                                         | —  | 700  |               | MTZ2 12L Micrologic 6.0 X | 1104            | 2400 (4) | LC1F630••      | 850             |
| ND                                         | —  | 1200 | ATV•L0M12T6   | MTZ2 16L Micrologic 6.0 X | 1472            | 3200 (4) | LC1F1700••     | 1450            |
| HD                                         | —  | 1000 |               | MTZ2 12L Micrologic 6.0 X | 1104            | 2400 (4) | LC1F1250••     | 1060            |
| ND                                         | —  | 1400 | ATV•L0M14T6   | MTZ2 16L Micrologic 6.0 X | 1472            | 3200 (4) | LC1F1700••     | 1450            |
| HD                                         | —  | 1100 |               | MTZ2 16L Micrologic 6.0 X | 1472            | 3200 (4) | LC1F1400••     | 1190            |
| ND                                         | —  | 1600 | ATV•L0M16T6   | MTZ2 20L Micrologic 6.0 X | 1840            | 4000 (4) | LC1F2100••     | 1750            |
| HD                                         | —  | 1300 |               | MTZ2 16L Micrologic 6.0 X | 1472            | 3200 (4) | LC1F1700••     | 1450            |
| ND                                         | —  | 1800 | ATV•L0M18T6   | MTZ2 25L Micrologic 6.0 X | 2300            | 5000 (4) | LC1F2600••     | 2600            |
| HD                                         | —  | 1400 |               | MTZ2 16L Micrologic 6.0 X | 1472            | 3200 (4) | LC1F2100••     | 1750            |
| ND                                         | —  | 2200 | ATV•L0M22T6   | MTZ2 25L Micrologic 6.0 X | 2300            | 5000 (4) | LC1F2600••     | 2600            |
| HD                                         | —  | 1700 |               | MTZ2 20L Micrologic 6.0 X | 1840            | 4000 (4) | LC1F2600••     | 2600            |
| ND                                         | —  | 2600 | ATV•L0M26T6   | MTZ2 30L Micrologic 6.0 X | 2760            | 6000 (4) | 3 x LC1F1700•• | 3262            |
| HD                                         | —  | 2100 |               | MTZ2 25L Micrologic 6.0 X | 2300            | 5000 (4) | LC1F2600••     | 2600            |

(1) Replace the dot ● with «6» for ATV6A0 or «9» for ATV9A0.

(2) The type of circuit breaker is selected for Icu min. 50 kA.

(3) Replace the dots ●● with the control circuit voltage code indicated in the documentation for the contactor.

(4) Rated instantaneous short-circuit current li: setting 2.



MTZ2 32H1

+



LC1F2600●●

+



ATV6L0M26Q6

#### IEC standard motor starters

| Nominal power<br>ND: Normal duty<br>HD: Heavy duty |    | Drive<br>Reference (1) | Circuit breaker              |                 |          | Line contactor |                 |
|----------------------------------------------------|----|------------------------|------------------------------|-----------------|----------|----------------|-----------------|
|                                                    |    |                        | Type (2)                     | Rating<br>@50°C | Ii       | Reference (3)  | Rating<br>@60°C |
| kW                                                 | HP |                        |                              | A               | A        | A              | A               |
| Three-phase supply voltage: 690 V 50/60 Hz         |    |                        |                              |                 |          |                |                 |
| ND 200                                             | —  | ATV●L0C20Q6            | NSX400HB1 Micrologic 2.3 400 | 400             | 4800 (5) | LC1F225●●      | 280             |
| HD 160                                             | —  |                        | NSX250HB1 Micrologic 2.2 250 | 250             | 3000 (5) | LC1F185●●      | 240             |
| ND 280                                             | —  | ATV●L0C28Q6            | NSX400HB1 Micrologic 2.3 400 | 400             | 4800 (5) | LC1F400●●      | 430             |
| HD 220                                             | —  |                        | NSX400HB1 Micrologic 2.3 400 | 400             | 4800 (5) | LC1F265●●      | 300             |
| ND 315                                             | —  | ATV●L0C31Q6            | NSX630HB1 Micrologic 2.3 630 | 600             | 6900 (5) | LC1F400●●      | 430             |
| HD 250                                             | —  |                        | NSX400HB1 Micrologic 2.3 400 | 400             | 4800 (5) | LC1F330●●      | 360             |
| ND 400                                             | —  | ATV●L0C40Q6            | NSX630HB1 Micrologic 2.3 630 | 600             | 6900 (5) | LC1F500●●      | 580             |
| HD 315                                             | —  |                        | NSX630HB1 Micrologic 2.3 630 | 600             | 6900 (5) | LC1F400●●      | 430             |
| ND 450                                             | —  | ATV●L0C45Q6            | NSX630HB1 Micrologic 2.3 630 | 600             | 6900 (5) | LC1F500●●      | 580             |
| HD 355                                             | —  |                        | NSX630HB1 Micrologic 2.3 630 | 600             | 6900 (5) | LC1F500●●      | 580             |
| ND 560                                             | —  | ATV●L0C56Q6            | NS800LB Micrologic 5.0       | 800             | 1600 (6) | LC1F630●●      | 850             |
| HD 450                                             | —  |                        | NSX630HB1 Micrologic 2.3 630 | 600             | 6900 (5) | LC1F500●●      | 580             |
| ND 710                                             | —  | ATV●L0C71Q6            | MTZ2 10H1 Micrologic 5.0 X   | 1000            | 2000 (6) | LC1F1250●●     | 1060            |
| HD 560                                             | —  |                        | NS800LB Micrologic 5.0       | 800             | 1600 (6) | LC1F630●●      | 850             |
| ND 900                                             | —  | ATV●L0C90Q6            | MTZ2 12H1 Micrologic 5.0 X   | 1250            | 2500 (6) | LC1F1400●●     | 1190            |
| HD 710                                             | —  |                        | MTZ2 10H1 Micrologic 5.0 X   | 1000            | 2000 (6) | LC1F1250●●     | 1060            |
| ND 1200                                            | —  | ATV●L0M12Q6            | MTZ2 16H1 Micrologic 5.0 X   | 1600            | 3200 (6) | LC1F2100●●     | 1750            |
| HD 1000                                            | —  |                        | MTZ2 12H1 Micrologic 5.0 X   | 1250            | 2500 (6) | LC1F1700●●     | 1450            |
| ND 1400                                            | —  | ATV●L0M14Q6            | MTZ2 20H1 Micrologic 5.0 X   | 2000            | 4000 (6) | LC1F2100●●     | 1750            |
| HD 1100                                            | —  |                        | MTZ2 16H1 Micrologic 5.0 X   | 1600            | 3200 (6) | LC1F1700●●     | 1450            |
| ND 1600                                            | —  | ATV●L0M16Q6            | MTZ2 20H1 Micrologic 5.0 X   | 2000            | 4000 (6) | LC1F2600●●     | 2600            |
| HD 1300                                            | —  |                        | MTZ2 16H1 Micrologic 5.0 X   | 1600            | 3200 (6) | LC1F2100●●     | 1750            |
| ND 1800                                            | —  | ATV●L0M18Q6 (4)        | MTZ2 20H1 Micrologic 5.0 X   | 2000            | 4000 (6) | LC1F2100●●     | 1750            |
| HD 1400                                            | —  | ATV●L0M18Q6            | MTZ2 20H1 Micrologic 5.0 X   | 2000            | 4000 (6) | LC1F2100●●     | 1750            |
| ND 2200                                            | —  | ATV●L0M22Q6 (4)        | MTZ2 25H1 Micrologic 5.0 X   | 2500            | 5000 (6) | LC1F2600●●     | 2600            |
| HD 1700                                            | —  |                        | MTZ2 20H1 Micrologic 5.0 X   | 2000            | 4000 (6) | LC1F2100●●     | 1750            |
| ND 2600                                            | —  | ATV●L0M26Q6 (4)        | MTZ2 32H1 Micrologic 5.0 X   | 3200            | 6400 (6) | LC1F2600●●     | 2600            |
| HD 2100                                            | —  |                        | MTZ2 25H1 Micrologic 5.0 X   | 2500            | 5000 (6) | LC1F2600●●     | 2600            |

(1) Replace the dot ● with «6» for ATV6A0 or «9» for ATV9A0.

(2) The type of circuit breaker is selected for Icu min. 50 kA.

(3) Replace the dots ●● with the control circuit voltage code indicated in the documentation for the contactor.

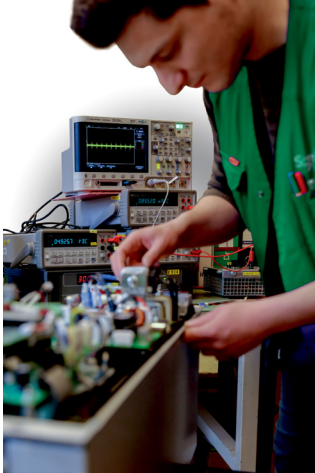
(4) A thermal test is required to fulfill IEC 61439-1.

(5) Rated instantaneous short-circuit current Ii: fixed.

(6) Rated instantaneous short-circuit current Ii: setting 2.

# Variable speed drives and soft starters

A whole world of Services for your drives and soft starters by Schneider Electric



## Support and services offer by Schneider Electric

Variable speed drives and soft starters are an important part of your operation, with downtime having a significant impact on your business. Protecting that investment through comprehensive services means that you can continue to deliver optimally throughout the lifecycle of your drive and soft starter. Our range of services is designed to help you get more out of your drives and soft starters, your operation, and to improve your environmental impact.



### Install

- **Extended Warranty** service helps you control your maintenance costs. Schneider Electric will provide a replacement drive and soft starter or repair the product on site during a period of one or three years more than the standard warranty, in all conditions covered by the extended warranty.
- **Start-up** service is the first essential step in maintenance and optimal operational performance of the drive or soft starter. Our comprehensive review checks up to 100 parameters and is especially designed for drives and soft starters in simple applications.
- **Commissioning** service ensures a reliable start for operations with more complex applications and drive systems. The unique requirements of your process need to be carefully considered to ensure efficient operations.

### Operate

- **Preventive Maintenance** service performs predetermined maintenance actions according to a product-specific schedule. The work is carried out by certified technical experts following Schneider Electric instructions. This service minimizes unplanned downtime and extends your equipment lifetime.
- **Remote Technical Support** brings you expert product assistance over the phone, email, chat, or web for any technical questions relating to your drives and soft starters, including configuration, diagnostics, and maintenance. Our global support team is multi-lingual with support available up to R&D level experts if needed.
- **On-Site Expert Assistance** service offers you highly skilled field service experts to troubleshoot and resolve drive or soft starter equipment-related matters at your site, as a back-up source of expertise for your personnel.
- **Spare Part Management** service identifies and manages your critical spare parts either on your site or offsite. This service ensures that you have access to the spares you need without having to invest in capital to maintain the stock.

(1) Services available in countries that have the right structure and capabilities.



# Variable speed drives and soft starters

A whole world of Services for your drives and soft starters by Schneider Electric



## Support and services offer by Schneider Electric (continued)

### Optimize

- **Training** service offers eLearning, classroom, and onsite training provision to enhance the technical installation, commissioning, and maintenance competencies of your personnel. Added competence translates into further process efficiency and reliability, as well as employee satisfaction.
- **EcoStruxure Asset Advisor** service enables you to move from reactive to predictive maintenance and access actionable insight provided by the advisor. The service predicts drive- and motor-related actions through connected devices and advanced algorithms monitored by Schneider Electric's experts.

### Renew

- **Drive Revitalization** is an excellent choice if you prefer to use your aging drives longer and want to extend their service life with affordable and comprehensive inspection and replacement of all critical parts.
- **Drive and soft starter replacement** involves modernizing equipment by replacing the previous aged or obsolete product with a new one matched to the purpose. The service can be extended with engineering in case the device and process requires more advanced engineering.

### Circular economy

- **Spare Parts** are available from our local, regional, and global stocks. Original equipment parts from Schneider Electric are reliable and easily available. They will help to keep your product in operation for longer.
- **Repair** allows you to extend the life of your drive or soft starter. The affected product can be replaced, or repaired on site or at our repair centers, depending on the type of product in question.
- **Fast Exchange by refurbished drive or soft starter (1)** gives a second life to inoperative drives or soft starters. In this case, we offer an immediate exchange with a replacement refurbished drive or soft starter and take back the product, repair it, and keep it ready for the next exchange.
- **Take-back and recycling (1)** is the last step to improve your environmental impact. Unreparable products are dismantled, raw materials are collected and given a second life. Up to 85% of the product components can be recycled.

## Service contracts secure recovery, availability, and outcome

**Service contracts** manage the safety and performance of your assets through well-defined maintenance plans tailored to your operational needs. The predefined service contract – Advantage Service Plan – and fully customizable “à la carte” service contract are built from the services in the “Operate” and “Optimize” phases and service levels defining availability, response, and lead times matching your particular needs. You will enjoy priority access to Schneider Electric support when you need it, as well as having an expert partner to plan the long-term evolution of your drives and soft starters.

## mySchneider app

With the mySchneider app you have easy 24/7 access to product information and expert support. All registered users have access to additional features, such as real-time notifications, order tracking, product pricing, and availability. The mySchneider app is available for download from the IOS and Android app store.

## Schneider Electric – helping you succeed

Schneider Electric, the leader in digital transformation of energy management and automation, has operations in more than 100 countries. With this global footprint we have certified field service representatives, regional expert and advanced level support up to product R&D to provide you the right support across the lifecycle of your drives and soft starters. Furthermore, we offer an extensive network of local and global repair centers and a logistics chain that underpins our ability to respond to your needs.

To order services or find out more, please contact your local Schneider Electric service center.

(1) Services available in countries that have the right structure and capabilities.

|               |    |               |    |             |    |             |    |             |    |
|---------------|----|---------------|----|-------------|----|-------------|----|-------------|----|
| A             |    | APM6B0CTLN401 | 84 | ATV6A0C71Q4 | 36 | ATV6B0C63Q4 | 48 | ATV6L0C90T6 | 68 |
| APM1A0C16N401 | 20 | APM9B0CTLN401 | 84 | ATV6A0C71R4 | 38 | ATV6B0C63Q6 | 58 | ATV6L0M10Q4 | 60 |
|               | 84 | APMCA01LCN4RH | 21 | ATV6A0C71T4 | 40 | ATV6B0C63R4 | 50 | ATV6L0M10R4 | 62 |
| APM1A0C16N4RH | 20 |               | 88 | ATV6A0C80N6 | 42 | ATV6B0C63T4 | 52 | ATV6L0M10T4 | 64 |
|               | 88 | APMCA01LCY6RH | 21 | ATV6A0C80Q4 | 36 | ATV6B0C63T6 | 56 | ATV6L0M12N6 | 66 |
| APM1A0C20Y6   | 20 |               | 88 | ATV6A0C80Q6 | 46 | ATV6B0C71Q4 | 48 | ATV6L0M12Q4 | 60 |
|               | 85 | APMCA02LCN4RH | 21 | ATV6A0C80R4 | 38 | ATV6B0C71R4 | 50 | ATV6L0M12Q6 | 70 |
|               | 88 |               | 88 | ATV6A0C80T4 | 40 | ATV6B0C71T4 | 52 | ATV6L0M12R4 | 62 |
| APM1A0C20Y6RH | 20 | APMCA02LCY6RH | 21 | ATV6A0C80T6 | 44 | ATV6B0C80N6 | 54 | ATV6L0M12T4 | 64 |
|               | 88 |               | 88 | ATV6A0M10N6 | 42 | ATV6B0C80Q4 | 48 | ATV6L0M12T6 | 68 |
| APM1B0C16N4   | 20 | APMCA03LCN4RH | 21 | ATV6A0M10Q4 | 36 | ATV6B0C80Q6 | 58 | ATV6L0M14N6 | 66 |
|               | 84 | APMCA03LCY6RH | 21 | ATV6A0M10Q6 | 46 | ATV6B0C80R4 | 50 | ATV6L0M14Q6 | 70 |
| APM1B0C20Y6   | 20 |               | 88 | ATV6A0M10R4 | 38 | ATV6B0C80T4 | 52 | ATV6L0M14T6 | 68 |
|               | 85 | ATV6A0C11N6   | 42 | ATV6A0M10T4 | 40 | ATV6B0C80T6 | 56 | ATV6L0M15Q4 | 60 |
| APM1L0C20N4   | 20 | ATV6A0C11Q4   | 36 | ATV6A0M10T6 | 44 | ATV6B0M10N6 | 54 | ATV6L0M15R4 | 62 |
|               | 90 | ATV6A0C11Q6   | 46 | ATV6A0M12N6 | 42 | ATV6B0M10Q4 | 48 | ATV6L0M15T4 | 64 |
|               | 92 | ATV6A0C11R4   | 38 | ATV6A0M12Q6 | 46 | ATV6B0M10Q6 | 58 | ATV6L0M16N6 | 66 |
| APM1L0C28Y6   | 20 | ATV6A0C11T4   | 40 | ATV6A0M12T6 | 44 | ATV6B0M10R4 | 50 | ATV6L0M16Q6 | 70 |
|               | 90 | ATV6A0C11T6   | 44 | ATV6B0C11N6 | 54 | ATV6B0M10T4 | 52 | ATV6L0M16T6 | 68 |
|               | 92 | ATV6A0C13N6   | 42 | ATV6B0C11Q4 | 48 | ATV6B0M10T6 | 56 | ATV6L0M18N6 | 66 |
| APM1L0C31N4   | 20 | ATV6A0C13Q4   | 36 | ATV6B0C11Q6 | 58 | ATV6B0M12N6 | 54 | ATV6L0M18Q4 | 60 |
|               | 90 | ATV6A0C13Q6   | 46 | ATV6B0C11R4 | 50 | ATV6B0M12Q6 | 58 | ATV6L0M18Q6 | 70 |
|               | 92 | ATV6A0C13R4   | 38 | ATV6B0C11T4 | 52 | ATV6B0M12T6 | 56 | ATV6L0M18R4 | 62 |
| APM1L0C45Y6   | 20 | ATV6A0C13T4   | 40 | ATV6B0C11T6 | 56 | ATV6L0C13Q4 | 60 | ATV6L0M18T4 | 64 |
|               | 90 | ATV6A0C13T6   | 44 | ATV6B0C13N6 | 54 | ATV6L0C13R4 | 62 | ATV6L0M18T6 | 68 |
|               | 92 | ATV6A0C16N6   | 42 | ATV6B0C13Q4 | 48 | ATV6L0C13T4 | 64 | ATV6L0M22N6 | 66 |
| APM1L0CCM115  | 27 | ATV6A0C16Q4   | 36 | ATV6B0C13Q6 | 58 | ATV6L0C16Q4 | 60 | ATV6L0M22Q6 | 70 |
|               | 91 | ATV6A0C16Q6   | 46 | ATV6B0C13R4 | 50 | ATV6L0C16R4 | 62 | ATV6L0M22T6 | 68 |
| APM1L0CCM230  | 27 | ATV6A0C16R4   | 38 | ATV6B0C13T4 | 52 | ATV6L0C16T4 | 64 | ATV6L0M26N6 | 66 |
|               | 91 | ATV6A0C16T4   | 40 | ATV6B0C13T6 | 56 | ATV6L0C20N6 | 66 | ATV6L0M26Q6 | 70 |
| APM1L0LCMN4   | 27 | ATV6A0C16T6   | 44 | ATV6B0C16N6 | 54 | ATV6L0C20Q4 | 60 | ATV6L0M26T6 | 68 |
|               | 91 | ATV6A0C20N6   | 42 | ATV6B0C16Q4 | 48 | ATV6L0C20Q6 | 70 | ATV9A0C11N6 | 43 |
| APM1L0LCMY6   | 27 | ATV6A0C20Q4   | 36 | ATV6B0C16Q6 | 58 | ATV6L0C20R4 | 62 |             | 81 |
|               | 91 | ATV6A0C20Q6   | 46 | ATV6B0C16R4 | 50 | ATV6L0C20T4 | 64 | ATV9A0C11Q4 | 37 |
| APM1L0LFMN4   | 26 | ATV6A0C20R4   | 38 | ATV6B0C16T4 | 52 | ATV6L0C20T6 | 68 |             | 72 |
|               | 92 | ATV6A0C20T4   | 40 | ATV6B0C16T6 | 56 | ATV6L0C25Q4 | 60 | ATV9A0C11Q6 | 47 |
| APM1L0LFMY6   | 26 | ATV6A0C20T6   | 44 | ATV6B0C20N6 | 54 | ATV6L0C25R4 | 62 |             | 83 |
|               | 92 | ATV6A0C25N6   | 42 | ATV6B0C20Q4 | 48 | ATV6L0C25T4 | 64 | ATV9A0C11R4 | 39 |
| APM1L0LPMN4   | 26 | ATV6A0C25Q4   | 36 | ATV6B0C20Q6 | 58 | ATV6L0C28N6 | 66 |             | 75 |
|               | 92 | ATV6A0C25Q6   | 46 | ATV6B0C20R4 | 50 | ATV6L0C28Q6 | 70 | ATV9A0C11T4 | 41 |
| APM1L0LPMY6   | 26 | ATV6A0C25R4   | 38 | ATV6B0C20T4 | 52 | ATV6L0C28T6 | 68 |             | 78 |
|               | 92 | ATV6A0C25T4   | 40 | ATV6B0C20T6 | 56 | ATV6L0C31N6 | 66 | ATV9A0C11T6 | 45 |
| APM1L0MPPMN4  | 27 | ATV6A0C25T6   | 44 | ATV6B0C25N6 | 54 | ATV6L0C31Q4 | 60 |             | 82 |
|               | 91 | ATV6A0C31N6   | 42 | ATV6B0C25Q4 | 48 | ATV6L0C31Q6 | 70 | ATV9A0C13N6 | 43 |
|               | 93 | ATV6A0C31Q4   | 36 | ATV6B0C25Q6 | 58 | ATV6L0C31R4 | 62 |             | 81 |
| APM1L0MPMY6   | 27 | ATV6A0C31Q6   | 46 | ATV6B0C25R4 | 50 | ATV6L0C31T4 | 64 | ATV9A0C13Q4 | 37 |
|               | 91 | ATV6A0C31R4   | 38 | ATV6B0C25T4 | 52 | ATV6L0C31T6 | 68 |             | 72 |
|               | 93 | ATV6A0C31T4   | 40 | ATV6B0C25T6 | 56 | ATV6L0C40N6 | 66 | ATV9A0C13Q6 | 47 |
| APM6A0CTLN401 | 22 | ATV6A0C31T6   | 44 | ATV6B0C31N6 | 54 | ATV6L0C40Q4 | 60 |             | 83 |
|               | 84 | ATV6A0C35Q4   | 36 | ATV6B0C31Q4 | 48 | ATV6L0C40Q6 | 70 | ATV9A0C13R4 | 39 |
|               | 88 | ATV6A0C35R4   | 38 | ATV6B0C31Q6 | 58 | ATV6L0C40R4 | 62 |             | 75 |
| APM6A0CTLY6   | 22 | ATV6A0C35T4   | 40 | ATV6B0C31R4 | 50 | ATV6L0C40T4 | 64 | ATV9A0C13T4 | 41 |
| APM6B0CTLN4   | 22 | ATV6A0C40N6   | 42 | ATV6B0C31T4 | 52 | ATV6L0C40T6 | 68 |             | 78 |
| APM6B0CTLY6   | 22 | ATV6A0C40Q4   | 36 | ATV6B0C31T6 | 56 | ATV6L0C45N6 | 66 | ATV9A0C13T6 | 45 |
| APM6L0CTLN    | 90 | ATV6A0C40Q6   | 46 | ATV6B0C35Q4 | 48 | ATV6L0C45Q6 | 70 |             | 82 |
| APM6L0CTLN4   | 22 | ATV6A0C40R4   | 38 | ATV6B0C35R4 | 50 | ATV6L0C45T6 | 68 | ATV9A0C16N6 | 43 |
| APM6L0CTLY6   | 22 | ATV6A0C40T4   | 40 | ATV6B0C35T4 | 52 | ATV6L0C50Q4 | 60 |             | 81 |
| APM9A0CTLN401 | 22 | ATV6A0C40T6   | 44 | ATV6B0C40N6 | 54 | ATV6L0C50R4 | 62 | ATV9A0C16Q4 | 37 |
|               | 84 | ATV6A0C45Q4   | 36 | ATV6B0C40Q4 | 48 | ATV6L0C50T4 | 64 |             | 72 |
|               | 88 | ATV6A0C45R4   | 38 | ATV6B0C40Q6 | 58 | ATV6L0C56N6 | 66 | ATV9A0C16Q6 | 47 |
| APM9A0CTLY6   | 22 | ATV6A0C45T4   | 40 | ATV6B0C40R4 | 50 | ATV6L0C56Q6 | 70 |             | 83 |
| APM9B0CTLN4   | 22 | ATV6A0C50N6   | 42 | ATV6B0C40T4 | 52 | ATV6L0C56T6 | 68 | ATV9A0C16R4 | 39 |
| APM9B0CTLY6   | 22 | ATV6A0C50Q4   | 36 | ATV6B0C40T6 | 56 | ATV6L0C63Q4 | 60 |             | 75 |
| APM9L0CTLN4   | 22 | ATV6A0C50Q6   | 46 | ATV6B0C45Q4 | 48 | ATV6L0C63R4 | 62 | ATV9A0C16T4 | 41 |
| APM9L0CTLY6   | 22 | ATV6A0C50R4   | 38 | ATV6B0C45R4 | 50 | ATV6L0C63T4 | 64 |             | 78 |
| APMBC0C50N4   | 27 | ATV6A0C50T4   | 40 | ATV6B0C45T4 | 52 | ATV6L0C71N6 | 66 | ATV9A0C16T6 | 45 |
|               | 86 | ATV6A0C50T6   | 44 | ATV6B0C50N6 | 54 | ATV6L0C71Q6 | 70 |             | 82 |
|               | 89 | ATV6A0C56Q4   | 36 | ATV6B0C50Q4 | 48 | ATV6L0C71T6 | 68 | ATV9A0C20N6 | 43 |
| APMBC0C63Y6   | 27 | ATV6A0C56R4   | 38 | ATV6B0C50Q6 | 58 | ATV6L0C80Q4 | 60 |             | 81 |
|               | 87 | ATV6A0C56T4   | 40 | ATV6B0C50R4 | 50 | ATV6L0C80R4 | 62 | ATV9A0C20Q4 | 37 |
|               | 89 | ATV6A0C63N6   | 42 | ATV6B0C50T4 | 52 | ATV6L0C80T4 | 64 |             | 72 |
| APMBC0CTLN4   | 27 | ATV6A0C63Q4   | 36 | ATV6B0C50T6 | 56 | ATV6L0C90N6 | 66 | ATV9A0C20Q6 | 47 |
|               | 86 | ATV6A0C63Q6   | 46 | ATV6B0C56Q4 | 48 | ATV6L0C90Q4 | 60 |             | 83 |
|               | 89 | ATV6A0C63R4   | 38 | ATV6B0C56R4 | 50 | ATV6L0C90Q6 | 70 | ATV9A0C20R4 | 39 |
| APMBC0CTLY6   | 27 | ATV6A0C63T4   | 40 | ATV6B0C56T4 | 52 | ATV6L0C90R4 | 62 |             | 75 |
|               | 87 | ATV6A0C63T6   | 44 | ATV6B0C63N6 | 54 | ATV6L0C90T4 | 64 |             |    |
|               | 89 |               |    |             |    |             |    |             |    |

|             |    |             |    |             |    |             |    |             |    |
|-------------|----|-------------|----|-------------|----|-------------|----|-------------|----|
| ATV9A0C20T4 | 41 | ATV9A0C63R4 | 39 | ATV9B0C20T6 | 57 | ATV9B0C80T4 | 53 | ATV9L0C45Q6 | 71 |
|             | 78 |             | 75 | ATV9B0C25N6 | 55 |             | 79 |             | 83 |
| ATV9A0C20T6 | 45 | ATV9A0C63T4 | 41 | ATV9B0C25Q4 | 49 | ATV9B0C80T6 | 57 | ATV9L0C45T6 | 69 |
|             | 82 |             | 78 |             | 73 | ATV9B0M10N6 | 55 |             | 82 |
| ATV9A0C25N6 | 43 | ATV9A0C63T6 | 45 | ATV9B0C25Q6 | 59 | ATV9B0M10Q4 | 49 | ATV9L0C50Q4 | 61 |
|             | 81 |             | 82 | ATV9B0C25R4 | 51 |             | 73 |             | 74 |
| ATV9A0C25Q4 | 37 | ATV9A0C71Q4 | 37 |             | 76 | ATV9B0M10Q6 | 59 | ATV9L0C50R4 | 63 |
|             | 72 |             | 72 | ATV9B0C25T4 | 53 | ATV9B0M10R4 | 51 |             | 77 |
| ATV9A0C25Q6 | 47 | ATV9A0C71R4 | 39 |             | 79 |             | 76 | ATV9L0C50T4 | 65 |
|             | 83 |             | 75 | ATV9B0C25T6 | 57 | ATV9B0M10T4 | 53 |             | 80 |
| ATV9A0C25R4 | 39 | ATV9A0C71T4 | 41 | ATV9B0C31N6 | 55 |             | 79 | ATV9L0C56N6 | 67 |
|             | 75 |             | 78 | ATV9B0C31Q4 | 49 | ATV9B0M10T6 | 57 |             | 81 |
| ATV9A0C25T4 | 41 | ATV9A0C80N6 | 43 |             | 73 | ATV9B0M12N6 | 55 | ATV9L0C56Q6 | 71 |
|             | 78 |             | 81 | ATV9B0C31Q6 | 59 | ATV9B0M12Q6 | 59 |             | 83 |
| ATV9A0C25T6 | 45 | ATV9A0C80Q4 | 37 | ATV9B0C31R4 | 51 | ATV9B0M12T6 | 57 | ATV9L0C56T6 | 69 |
|             | 82 |             | 72 |             | 76 | ATV9L0C13Q4 | 61 |             | 82 |
| ATV9A0C31N6 | 43 | ATV9A0C80Q6 | 47 | ATV9B0C31T4 | 53 |             | 74 | ATV9L0C63Q4 | 61 |
|             | 81 |             | 83 |             | 79 | ATV9L0C13R4 | 63 |             | 74 |
| ATV9A0C31Q4 | 37 | ATV9A0C80R4 | 39 | ATV9B0C31T6 | 57 |             | 77 | ATV9L0C63R4 | 63 |
|             | 72 |             | 75 | ATV9B0C35Q4 | 49 | ATV9L0C13T4 | 65 |             | 77 |
| ATV9A0C31Q6 | 47 | ATV9A0C80T4 | 41 |             | 73 |             | 80 | ATV9L0C63T4 | 65 |
|             | 83 |             | 78 | ATV9B0C35R4 | 51 | ATV9L0C16Q4 | 61 |             | 80 |
| ATV9A0C31R4 | 39 | ATV9A0C80T6 | 45 |             | 76 |             | 74 | ATV9L0C71N6 | 67 |
|             | 75 |             | 82 | ATV9B0C35T4 | 53 | ATV9L0C16R4 | 63 |             | 81 |
| ATV9A0C31T4 | 41 | ATV9A0M10N6 | 43 |             | 79 |             | 77 | ATV9L0C71Q6 | 71 |
|             | 78 |             | 81 | ATV9B0C40N6 | 55 | ATV9L0C16T4 | 65 |             | 83 |
| ATV9A0C31T6 | 45 | ATV9A0M10Q4 | 37 | ATV9B0C40Q4 | 49 |             | 80 | ATV9L0C71T6 | 69 |
|             | 82 |             | 72 |             | 73 | ATV9L0C20N6 | 67 |             | 82 |
| ATV9A0C35Q4 | 37 | ATV9A0M10Q6 | 47 | ATV9B0C40Q6 | 59 |             | 81 | ATV9L0C80Q4 | 61 |
|             | 72 |             | 83 | ATV9B0C40R4 | 51 | ATV9L0C20Q4 | 61 |             | 74 |
| ATV9A0C35R4 | 39 | ATV9A0M10R4 | 39 |             | 76 |             | 74 | ATV9L0C80R4 | 63 |
|             | 75 |             | 75 | ATV9B0C40T4 | 53 | ATV9L0C20Q6 | 71 |             | 77 |
| ATV9A0C35T4 | 41 | ATV9A0M10T4 | 41 |             | 79 |             | 83 | ATV9L0C80T4 | 65 |
|             | 78 |             | 78 | ATV9B0C40T6 | 57 | ATV9L0C20R4 | 63 |             | 80 |
| ATV9A0C40N6 | 43 | ATV9A0M10T6 | 45 | ATV9B0C45Q4 | 49 |             | 77 | ATV9L0C90N6 | 67 |
|             | 81 |             | 82 |             | 73 | ATV9L0C20T4 | 65 |             | 81 |
| ATV9A0C40Q4 | 37 | ATV9A0M12N6 | 43 | ATV9B0C45R4 | 51 |             | 80 | ATV9L0C90Q4 | 61 |
|             | 72 |             | 81 |             | 76 | ATV9L0C20T6 | 69 |             | 74 |
| ATV9A0C40Q6 | 47 | ATV9A0M12Q6 | 47 | ATV9B0C45T4 | 53 |             | 82 | ATV9L0C90Q6 | 71 |
|             | 83 |             | 83 |             | 79 | ATV9L0C25Q4 | 61 |             | 83 |
| ATV9A0C40R4 | 39 | ATV9A0M12T6 | 45 | ATV9B0C50N6 | 55 |             | 74 | ATV9L0C90R4 | 63 |
|             | 75 |             | 82 | ATV9B0C50Q4 | 49 | ATV9L0C25R4 | 63 |             | 77 |
| ATV9A0C40T4 | 41 | ATV9B0C11N6 | 55 |             | 73 |             | 77 | ATV9L0C90T4 | 65 |
|             | 78 | ATV9B0C11Q4 | 49 | ATV9B0C50Q6 | 59 | ATV9L0C25T4 | 65 |             | 80 |
| ATV9A0C40T6 | 45 |             | 73 | ATV9B0C50R4 | 51 |             | 80 | ATV9L0C90T6 | 69 |
|             | 82 | ATV9B0C11Q6 | 59 |             | 76 | ATV9L0C28N6 | 67 |             | 82 |
| ATV9A0C45Q4 | 37 | ATV9B0C11R4 | 51 | ATV9B0C50T4 | 53 |             | 81 | ATV9L0M10Q4 | 61 |
|             | 72 |             | 76 |             | 79 | ATV9L0C28Q6 | 71 |             | 74 |
| ATV9A0C45R4 | 39 | ATV9B0C11T4 | 53 | ATV9B0C50T6 | 57 |             | 83 | ATV9L0M10R4 | 63 |
|             | 75 |             | 79 | ATV9B0C56Q4 | 49 | ATV9L0C28T6 | 69 |             | 77 |
| ATV9A0C45T4 | 41 | ATV9B0C11T6 | 57 |             | 73 |             | 82 | ATV9L0M10T4 | 65 |
|             | 78 | ATV9B0C13N6 | 55 | ATV9B0C56R4 | 51 | ATV9L0C31N6 | 67 |             | 80 |
| ATV9A0C50N6 | 43 | ATV9B0C13Q4 | 49 |             | 76 |             | 81 | ATV9L0M12N6 | 67 |
|             | 81 |             | 73 | ATV9B0C56T4 | 53 | ATV9L0C31Q4 | 61 |             | 81 |
| ATV9A0C50Q4 | 37 | ATV9B0C13Q6 | 59 |             | 79 |             | 74 | ATV9L0M12Q4 | 61 |
|             | 72 | ATV9B0C13R4 | 51 | ATV9B0C63N6 | 55 | ATV9L0C31Q6 | 71 |             | 74 |
| ATV9A0C50Q6 | 47 |             | 76 | ATV9B0C63Q4 | 49 |             | 83 | ATV9L0M12Q6 | 71 |
|             | 83 | ATV9B0C13T4 | 53 |             | 73 | ATV9L0C31R4 | 63 |             | 83 |
| ATV9A0C50R4 | 39 |             | 79 | ATV9B0C63Q6 | 59 |             | 77 | ATV9L0M12R4 | 63 |
|             | 75 | ATV9B0C13T6 | 57 | ATV9B0C63R4 | 51 | ATV9L0C31T4 | 65 |             | 77 |
| ATV9A0C50T4 | 41 | ATV9B0C16N6 | 55 |             | 76 |             | 80 | ATV9L0M12T4 | 65 |
|             | 78 | ATV9B0C16Q4 | 49 | ATV9B0C63T4 | 53 | ATV9L0C31T6 | 69 |             | 80 |
| ATV9A0C50T6 | 45 |             | 73 |             | 79 |             | 82 | ATV9L0M12T6 | 69 |
|             | 82 | ATV9B0C16Q6 | 59 | ATV9B0C63T6 | 57 | ATV9L0C40N6 | 67 |             | 82 |
| ATV9A0C56Q4 | 37 | ATV9B0C16R4 | 51 | ATV9B0C71Q4 | 49 |             | 81 | ATV9L0M14N6 | 67 |
|             | 72 |             | 76 |             | 73 | ATV9L0C40Q4 | 61 |             | 81 |
| ATV9A0C56R4 | 39 | ATV9B0C16T4 | 53 | ATV9B0C71R4 | 51 |             | 74 | ATV9L0M14Q6 | 71 |
|             | 75 |             | 79 |             | 76 | ATV9L0C40Q6 | 71 |             | 83 |
| ATV9A0C56T4 | 41 | ATV9B0C16T6 | 57 | ATV9B0C71T4 | 53 |             | 83 | ATV9L0M14T6 | 69 |
|             | 78 | ATV9B0C20N6 | 55 |             | 79 | ATV9L0C40R4 | 63 |             | 82 |
| ATV9A0C63N6 | 43 | ATV9B0C20Q4 | 49 | ATV9B0C80N6 | 55 |             | 77 | ATV9L0M15Q4 | 61 |
|             | 81 |             | 73 | ATV9B0C80Q4 | 49 | ATV9L0C40T4 | 65 |             | 74 |
| ATV9A0C63Q4 | 37 | ATV9B0C20Q6 | 59 |             | 73 |             | 80 | ATV9L0M15R4 | 63 |
|             | 72 | ATV9B0C20R4 | 51 | ATV9B0C80Q6 | 59 | ATV9L0C40T6 | 69 |             | 77 |
| ATV9A0C63Q6 | 47 |             | 76 | ATV9B0C80R4 | 51 |             | 82 | ATV9L0M15T4 | 65 |
|             | 83 | ATV9B0C20T4 | 53 |             | 76 | ATV9L0C45N6 | 67 |             | 80 |
|             |    |             | 79 |             |    |             | 81 |             |    |

|                |     |                |    |                |    |                 |    |
|----------------|-----|----------------|----|----------------|----|-----------------|----|
| ATV9L0M16N6    | 67  | MODBUOC16R4APM | 75 | MODBUOC80N6APM | 81 | VW3A97A01       | 23 |
| ATV9L0M16Q6    | 81  |                | 76 |                | 87 |                 | 84 |
|                | 71  |                | 77 |                | 89 |                 | 85 |
|                | 83  |                | 86 | MODBUOC80Q4APM | 72 |                 | 86 |
| ATV9L0M16T6    | 69  |                | 89 |                | 74 |                 | 87 |
|                | 82  | MODBUOC16T4APM | 78 |                | 86 |                 | 88 |
| ATV9L0M18N6    | 67  |                | 79 |                | 89 |                 | 89 |
|                | 81  |                | 80 | MODBUOC80Q6APM | 83 | VW3A97B01       | 23 |
| ATV9L0M18Q4    | 61  |                | 86 |                | 87 |                 | 84 |
|                | 74  |                | 89 |                | 89 |                 | 85 |
| ATV9L0M18Q6    | 71  | MODBUOC20N6APM | 81 | MODBUOC80R4APM | 75 | VW3A98ABMAAA    | 24 |
|                | 83  |                | 87 |                | 77 | VW3A98ABMCAB    | 24 |
| ATV9L0M18R4    | 63  |                | 89 |                | 86 | VW3A98ABMCAC    | 24 |
|                | 77  | MODBUOC20Q6APM | 83 |                | 89 | VW3A98ABMDCE    | 24 |
| ATV9L0M18T4    | 65  |                | 87 | MODBUOC80T4APM | 78 | VW3A98ABMDCF    | 24 |
|                | 80  |                | 89 |                | 80 | VW3A98ABPC1     | 24 |
| ATV9L0M18T6    | 69  | MODBUOC20T6APM | 82 |                | 86 | VW3A98ABPDCE1   | 24 |
|                | 82  |                | 87 |                | 89 | VW3A98ABPDCF    | 24 |
| ATV9L0M22N6    | 67  |                | 89 | MODBUOC80T6APM | 82 | VW3A98BBMAAB    | 24 |
|                | 81  | MODBUOC31Q4APM | 72 |                | 87 | VW3A98BBMCAD    | 24 |
| ATV9L0M22Q6    | 71  |                | 73 |                | 89 | VW3A98BBMDCG    | 24 |
|                | 83  |                | 74 | MODBUOM10N6APM | 81 | VW3A98BBPC      | 24 |
| ATV9L0M22T6    | 69  |                | 86 |                | 87 | VW3A98BBPDCG    | 24 |
|                | 82  |                | 89 |                | 89 | VW3A98BBPDCCK   | 24 |
| ATV9L0M26N6    | 67  | MODBUOC31R4APM | 75 | MODBUOM10Q6APM | 83 | VW3A98CF3169    | 24 |
|                | 81  |                | 76 |                | 87 | VW3A98CF4040    | 24 |
| ATV9L0M26Q6    | 71  |                | 77 |                | 89 | VW3A98CTM01     | 24 |
|                | 83  |                | 86 | MODBUOM10T6APM | 82 | VW3A98CTM02     | 24 |
| ATV9L0M26T6    | 69  |                | 89 |                | 87 | VW3A98CTM03     | 25 |
|                | 82  | MODBUOC31T4APM | 78 |                | 89 | VW3A98CTM04     | 25 |
|                |     |                | 79 | MODBUOM12N6APM | 81 | VW3A98LBPC1     | 26 |
| <b>H</b>       |     |                | 80 |                | 87 | VW3A98LBPC2     | 26 |
| HRL36150U31X   | 99  |                | 86 |                | 89 | VW3A98LBPC3     | 26 |
|                | 104 |                | 89 | MODBUOM12Q6APM | 83 | VW3A98LGHC1     | 26 |
| <b>J</b>       |     | MODBUOC40N6APM | 81 |                | 87 | VW3A98LGHC2     | 26 |
| JLL36250U31X   | 98  |                | 87 |                | 89 | VW3A98LTMC1     | 26 |
|                | 99  |                | 89 | MODBUOM12T6APM | 82 | VW3A99ACA01     | 26 |
|                | 103 | MODBUOC40Q6APM | 83 |                | 87 | VW3A99ACA02     | 26 |
|                | 104 |                | 87 |                | 89 | VW3A99ACA03     | 25 |
|                | 110 |                | 89 | <b>T</b>       |    | VW3A99ACA04     | 25 |
| <b>L</b>       |     | MODBUOC40T6APM | 82 | TCSEGB131W     | 29 | VW3A99ACA05     | 26 |
| LLL36400U31X   | 98  |                | 87 | <b>V</b>       |    | VW3A99ACA06     | 26 |
|                | 103 |                | 89 | VW3A1104R10    | 29 | VW3A99ACA07     | 26 |
|                | 108 | MODBUOC50Q4APM | 72 | VW3A1104R100   | 29 | VW3A99ACA08     | 26 |
| LLL36600U31X   | 98  |                | 73 | VW3A1104R30    | 29 | VW3A99ACA09     | 26 |
|                | 103 |                | 74 | VW3A1104R50    | 29 | VW3A99ACA10     | 26 |
|                | 108 |                | 86 | VW3A1111       | 29 | VW3A99ACA11     | 25 |
| LLL36600U44X   | 103 |                | 89 | VW3A1112       | 29 | VW3A99ACA12     | 25 |
| LRL36400U31X   | 99  | MODBUOC50R4APM | 75 | VW3A1115       | 29 | VW3A99ACA13     | 25 |
|                | 104 |                | 76 | VW3A3203       | 94 | VW3A99ACFAA     | 25 |
|                | 110 |                | 77 | VW3A3204       | 94 | VW3A99ACFAA01   | 25 |
| LRL36600U31X   | 99  |                | 86 | VW3A3420       | 94 | VW3A99ACFABM    | 25 |
|                | 104 | MODBUOC50T4APM | 78 | VW3A3422       | 94 | VW3A99ACFCB     | 25 |
|                | 110 |                | 79 | VW3A3423       | 94 | VW3A99ACFCB01   | 25 |
| <b>P</b>       |     |                | 80 | VW3A3424       | 94 | VW3A99ACFCBM01  | 25 |
| PLL34080U31A   | 98  |                | 86 | VW3A3601       | 94 | VW3A99ACFCBM02  | 25 |
|                | 103 | MODBUOC63N6APM | 81 | VW3A3607       | 94 | VW3A99ACFCBN01  | 25 |
|                | 108 |                | 87 | VW3A3608       | 94 | VW3A99ACFEBCN01 | 25 |
| PLL34100U44A   | 98  |                | 89 | VW3A3609       | 94 | VW3A99ACFEBCN02 | 25 |
|                | 103 |                | 87 | VW3A3618       | 94 | VW3A99ACFEC     | 25 |
|                | 108 | MODBUOC63Q4APM | 72 | VW3A3619       | 94 | VW3A99ACFEC01   | 25 |
| PLL34120U44A   | 98  |                | 74 | VW3A3627       | 94 | VW3A99AR01      | 25 |
|                | 103 |                | 86 | VW3A3628       | 94 | VW3A99BCA02     | 26 |
|                | 108 |                | 89 | VW3A3720       | 94 | VW3A99BCA03     | 25 |
| <b>R</b>       |     | MODBUOC63R4APM | 75 | VW3A3721       | 94 | VW3A99BCFAB     | 25 |
| RLF36160U44A   | 98  |                | 77 | VW3A3725       | 94 | VW3A99BCFAB01   | 25 |
|                | 103 |                | 86 | VW3A3800       | 94 | VW3A99BCFCD     | 25 |
|                | 108 |                | 89 | VW3A3802       | 94 | VW3A99BCFCD01   | 25 |
| RLF36200U44A   | 108 |                | 86 | VW3A83BMR015   | 23 | VW3A99BR01      | 25 |
| RLF36300U44A   | 108 |                | 89 | VW3A83BMR050   | 23 | VW3A99LR01      | 26 |
| <b>M</b>       |     | MODBUOC63T4APM | 78 | VW3A83BMR100   | 26 | VX5VAM001       | 28 |
| MODBUOC16Q4APM | 72  |                | 80 | VW3A83CDG020   | 23 | VX5VAML001      | 28 |
|                | 73  |                | 86 | VW3A83CDG030   | 23 | VX5VAML002      | 28 |
|                | 74  |                | 89 | VW3A83CDG050   | 23 | VX5VAML003      | 28 |
|                | 86  |                | 87 | VW3A83CDG100   | 23 | <b>Z</b>        |    |
|                | 89  | MODBUOC63T6APM | 82 |                |    | ZB5AZ905        | 29 |
|                |     |                | 87 |                |    |                 |    |
|                |     |                | 89 |                |    |                 |    |

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