

Customized high-power drive solutions to withstand the harshest environments

Altivar™ Process Modular Drives



se.com/drives

Life Is On

Schneider
Electric

Meets the most demanding requirements in industrial applications.



Field-tested performance for air- and liquid-cooled applications

Altivar Process Modular drives seamlessly integrate into your existing drive systems and maintenance plan.

Developed for industrial applications, such as Water & Wastewater to Mining, Minerals & Metals, Energies & Chemicals, and Food & Beverage manufacturing, Altivar Process Modular drives provide flexible solutions that offer exceptional performance, protection, and customization with two variable speed drive offerings:

- **ATV600** – Fluid management, optimizing processing, and energy-saving
- **ATV900** – Solids management, improving productivity, motor control, and connectivity



Altivar Process Modular drive benefits

1 Process optimization

- **Dedicated functions for increased efficiency**, such as master/slave torque sharing for conveyors, backspin control for Progressing Cavity Pumps (PCP)/Electrical Submersible Pumps (ESP)
- **IIoT-enabled EcoStruxure™ integration** for seamless compatibility and integration with other architectures, controllers, and systems
- **Enhanced sustainability** via monitoring the best efficiency point (BEP) for necessary adjustment

Up to
20%
Improved
productivity

2 Energy management

- **Embedded power management** with <5% measurement error
- **Lifetime energy use monitoring** and key performance indicators (KPIs)
- **Real-time data collection** of energy consumption
- **Low harmonics/Regen technology 3-level design**

Up to
30%
Energy savings

3 Asset management

- **Dedicated protection functions** for motor and process (e.g., anti-jam, dry running, pump cyclic)
- **Improved drive reliability** in extreme conditions via rugged design and multi-drive architecture over Ethernet
- **Predictive maintenance** with EcoStruxure Asset Advisor
- **Faster maintenance** via dynamic product QR codes
- **Easy replacement** and simplified spare parts management with identical power modules and control units

Up to
20%
Enhanced asset
management with
reduced downtime

A customizable solution for precise power needs

Optimized cabinet-mounted drive solution accelerates time-to-market and reduces costs.

Altivar Process Modular drives use sub-assemblies to locally build custom high-power solutions in compact sizes, with power ranges 75-2600 kW/125-2600 HP.

Combine up to six modules in parallel to reach your desired power level; see **Figure 1**.

- A power module section is combined with different drive architectures
- Control units differentiate the architecture between ATV600 and ATV900 drives
- Optional kits and accessories provide easy enclosure integration

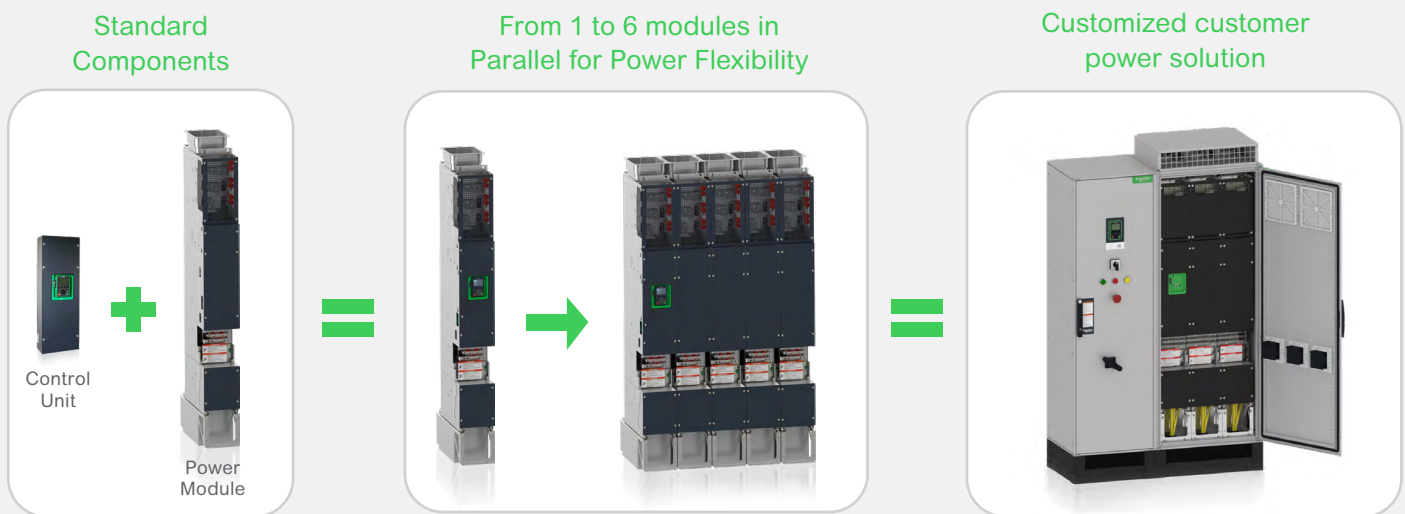


Figure 1

Cabinet integration benefits



Simplified design and installation: Easy setup and installation, quick commissioning, and cost-effective solutions for high-power drive applications.



Easy maintenance to optimize uptime: Core components are easy to replace, reducing downtime and maintenance costs.



Flexibility, efficiency, and reliability: Options for low harmonic and liquid-cooled drives, meeting demanding application requirements and enclosure standards.

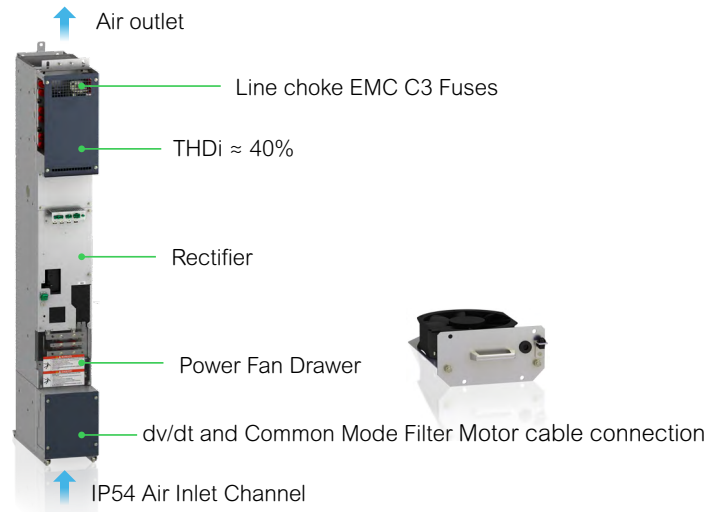
Altivar Process Modular Offers

1 Standard modular drives

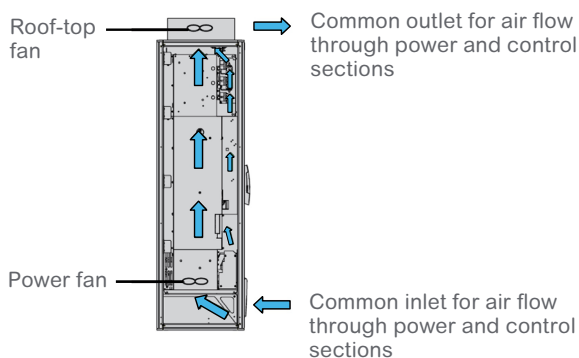
Altivar Process Modular drives deliver high-power solutions with enhanced standard features, including semiconductor protection fuses for each module, line chokes to limit total harmonic distortion (THDi) levels, and an output filter that safeguards motors against the effects of the rate of voltage change over time (dv/dt).

Air-cooled concept

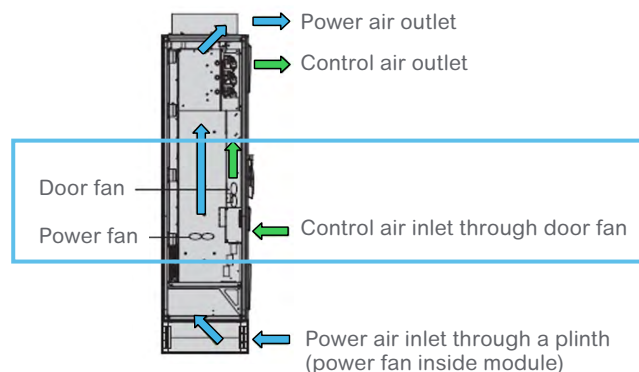
Two cooling integration concepts optimize the drive unit's heat dissipation and encapsulation:



IP21 (UL Type 1) – Enables shared cooling airflow for power and control sections.



IP54 (UL Type 12) – A mechanical kit separates cooling airflow between the power and control sections, enabling operation in polluted environments and effectively managing thermal stress.



Compact cabinet design

For special integration constraints with IP21/IP54 protection, there are two robust integration offers:

1. **Standard:** Integration in 2 m (6.56 ft.) height and 600 mm (23.62 in.) depth cabinets
2. **Reduced height:** Integration in 1.6 m (5.25 ft.) height and 600 mm (23.62 in.) depth cabinets

Altivar Process Modular Offers

2 Low harmonic/Regenerative modular drives

Low harmonic/regenerative (regen) drives generate low harmonics on the main power grid. They enable four-quadrant (4Q) operation, **see Figure 2**, and improve application efficiency by feeding energy back to the mains.

When compared with standard 2-level Active Front End (AFE) architectures, see **Figure 3**, the 3-level Altivar Process Modular/Regen drives reach a total THDi of ~2%, in compliance with standard IEEE 519 (<5%). The $\cos \Phi \approx 1$ in each load situation (from 30% P_n) also reduces the line supply load.

The Low harmonic/Regen drive range is ideal for energy efficiency and process optimization.



Enhanced motor service life

The 3-level active infeed converter (AIC) technology significantly reduces the motor's voltage load, while the fluctuating adaptation of the DC link voltage helps extend motor service life.



Reduced losses

Compared to the traditional circuit structure of active mains rectifiers, the switching frequency increases while the current load is reduced.



Compact dimensions

The 3-level technology reduces the dimensions of the integrated filter by almost half due to the increased switching frequency and its location inside the forced cooling air duct.

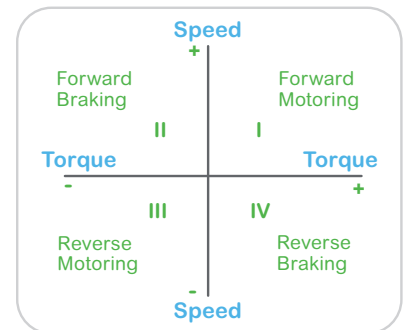


Figure 2

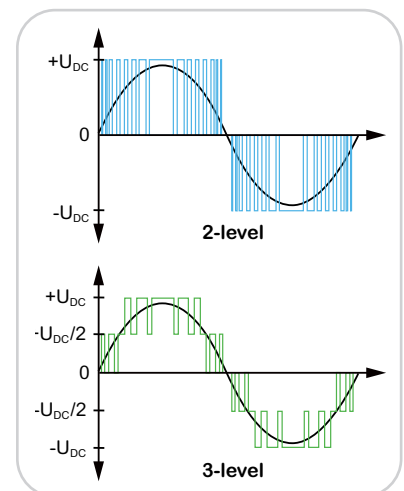


Figure 3



Low harmonic/Regen Power Module and Control Unit



From 1 to 6 modules in Parallel



APM Low harmonic/Regen Enclosure

Altivar Process Modular Offers

3 Liquid-cooled modular drives

Altivar Process Modular liquid-cooled drives for cabinet integration deliver a modular high-power solution for cabinet installation. These drives provide optimal heat loss dissipation with integrated liquid cooling in harsh industrial conditions. See **Figure 4**. A robust design meets the requirements for applications in harsh environments and protects up to IP66.

Liquid-cooled concept

- 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

Space-saving cabinet design

Altivar Process Modular liquid-cooled drives deliver flexible solutions for special integration constraints with a 6- or 12-pulse supply in two offers:

1. **Universal:** Suitable for different types of grids with integrated mains choke (THDi < 48% at 6-pulse or THDi 9% at 12-pulse supply at 80 to 100% load)
2. **Compact:** Optimized with a dedicated transformer for most compact dimensions

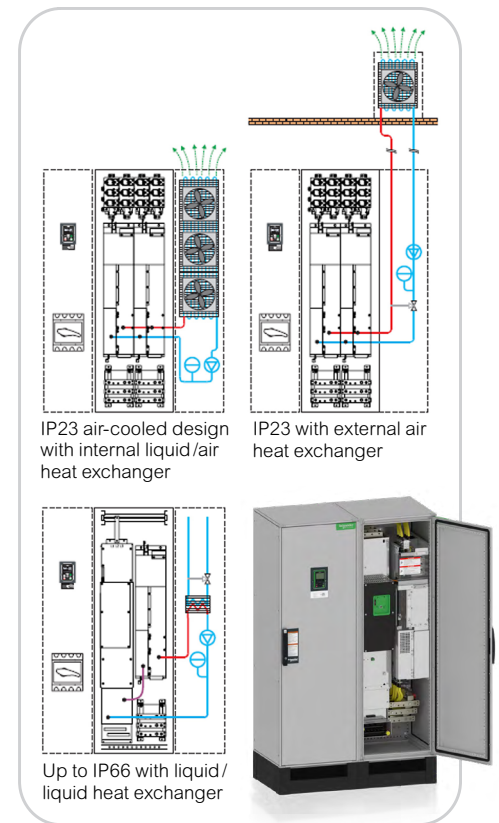


Figure 4

Braking unit modules

Braking units follow the same seamless integration process as our standard power modules, ensuring consistency in the frame, size, integration kits, and DC busbar kits.

They are compatible with all Altivar Process Modular drives, providing flexibility, versatility, and advanced functions:

With Standard and Liquid-cooled drives

- Full braking torque is also in the overload range
- Shorten and monitor the deceleration time for long travel applications
- Temporary regenerative load, such as for hoist applications

With Low harmonic/Regen drives

- Braking operation during energy regeneration is not possible



Altivar Process Modular Offer Panorama



	Offer Range	Standard/Reduced Height	Low-Harmonic/Regenerative	Liquid Cooled (Universal/Compact)
	Range	ATV6A0/ATV9A0	ATV6B0/ATV9B0	ATV6L0/ATV9L0
Power range				
380...480V		Normal Duty (ND): 110 kW - 1000 kW (150HP - 1400HP) Heavy Duty (HD): 90 kW - 800 kW (125HP - 1100HP)		ND: 132 kW - 1800 kW (200HP - 2500HP) HD: 110 kW - 1400 kW (150HP - 2000HP)
500...690V		ND: 110 kW - 1200 kW (125HP - 1200HP) HD: 90 kW - 1000 kW (100HP - 1000HP)		ND: 200 kW - 2600 kW (200HP - 2600HP) HD: 160 kW - 2100 kW (150HP - 2100HP)
Output Current				
380...480V		ND: 211A - 1770A HD: 173A - 1420A		ND: 250A - 3200A HD: 211A - 2470A
500...690V		ND: 125A - 1230A HD: 105A - 1030A		ND: 215A - 2620A HD: 175A - 2120A
Input Frequency		50/60Hz +/-5%		
Overload Capacity		Normal duty (ND): Overload for 60s every 10min, ATV600: 110%/ATV900: 120% Heavy duty (HD): Overload of 150% for 60s every 10min		
Control Type				
Asynchronous Motor		Standard constant torque, variable standard torque, optimized torque mode		
Synchronous Motor		Permanent magnet motor, synchronous reluctance motor		
Output Frequency		ATV600: 0.1...500 Hz ATV900: 0.1...599 Hz		
Communication				
Safety Function		Safe Torque Off (STO) and Safety Integrity Level (SIL) 3		
Long Cable		Integrated dv/dt and common mode filter for 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)		
Integrated		ATV600: Modbus/TCP, Modbus serial link ATV900: EtherNet/IP, Modbus/TCP Dual port, Modbus serial link		
Optional		ATV600: 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 ATV900: CANopen daisy chain, SUB-D, and screw terminal block, PROFINET, PROFIBUS DP V1, DeviceNet, EtherCAT, POWERLINK		
Protection Degree		Module: IP00 Enclosure: IP21 (UL Type 1)/IP54 (UL Type 12)		Module: IP00 Enclosure: IP21 (UL Type 1) up to IP66
Cooling		Forced Ventilation		Liquid-Cooled
Environment Characteristics				
Operating Temperature		-10...40°C, up to 50°C with derate	-5...40°C, up to 50°C with derate	-10...40°C, up to 50°C with derate
Storage Temperature		-40°C to 70°C		
Relative humidity without condensing		5...95%		
Altitude		1000m without derate. Up to 4800m with derate		
Noise Level		Approx. 80 dB (A), depending on the power range		
Environmental protection IEC/EN 60721-3-3		3C3: Chemical class 3S3: Mechanical class 3K3: Climatic class		
Harmonics		6 pulses: THDi ≈ 40%	THDi ≤ 5% Compatible with standard IEEE 519	6 pulses: THDi ≈ 40% 12 pulses: THDi ≤9%
Main Benefits				
		- Standard Design - Flexible solution for cabinet integration - Reduced Height for integration in 1.6 m/5.25 ft height cabinets	- The 3-level AIC technology reduces the voltage peak at the motor - Less heat loss compared to classic AFE inverters	- Modules ready for 12 pulses - Flexible cooling concept, liquid/air or liquid/liquid heat exchanger - Universal: Suitable for all kind of grids with integrated mains choke - Compact: Optimized with a dedicated transformer for most compact dimensions

Altivar Process Modular Power Ratings and Services

Power Rating 380V...480V					
Air-Cooled (Standard/Low Harmonic)			Liquid-Cooled		
Motor Power	Degree of Protection	Reference*	Motor Power	Degree of Protection	Reference*
110...1000 kW	IP00	ATV6A0C11•4...M10•4	132...1800 kW	IP00	ATV6A0C11•6...M12•6
150...1400 HP		ATV9A0C11•4...M10•4	200...2500 HP		ATV6A0C11•6...M12•6
110...1000 kW		ATV6B0C11•4...M10•4			
150...1400 HP		ATV9B0C11•4...M10•4			

Power Rating 500V...690V					
Air-Cooled (Standard/Low Harmonic)			Liquid-Cooled		
Motor Power	Degree of Protection	Reference*	Motor Power	Degree of Protection	Reference*
75...1200 kW	IP00	ATV6A0C11•6...M12•6	132...2600 kW	IP00	ATV6L0C20•6...M26•6
125...1200 HP		ATV9A0C11•6...M12•6	200...2600 HP		ATV9L0C20•6...M26•6
75...1200 kW		ATV6B0C11•6...M12•6			
125...1200 HP		ATV9B0C11•6...M12•6			

*Product Ranges
ATV6=ATV600
ATV9=ATV900

Offer Ranges
A0=Air-Cooled Standard
B0=Air-Cooled Low harmonic
L0=Liquid-Cooled

Power Range In Normal Duty
C11...M26=110kW-2600kW

Voltage Range In Normal Duty
Q4, R4, T4 - 400V...480V
N6, T6, Q6 - 500V...690V

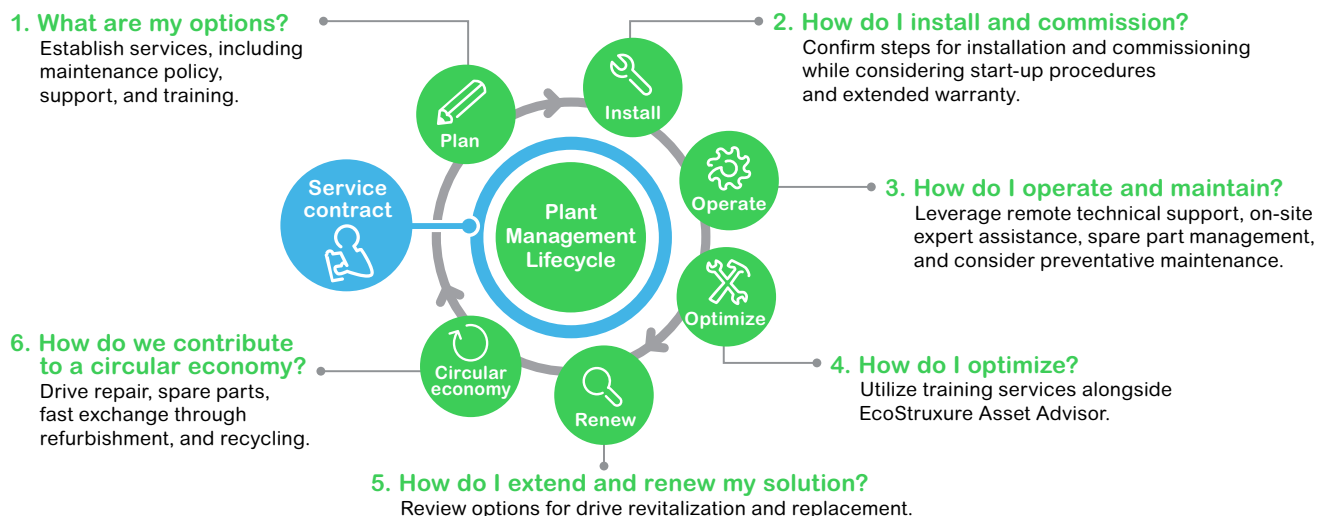
Access detailed
product specs

ATV600

ATV900

Protect your investment with drive services

Drives are crucial for maximizing operational uptime. Schneider Electric's comprehensive services help ensure optimal performance throughout the equipment's lifecycle while reducing environmental impact with a circular approach.



Integration with EcoStruxure™

EcoStruxure Power Monitoring Expert

Simplify the management of complex power systems for more efficient control and monitoring. [EcoStruxure Power Monitoring Expert](#) takes full advantage of IoT connectivity and distributed intelligence to help maximize your uptime and operational efficiency.

This solution offers smart event and alarm clustering, graphical timelines for analysis, advanced energy visualization tools, and compliance with IEC 62443 cybersecurity standards.



Keep people and assets safer: Detect abnormal conditions, locate insulation faults, and reduce the risk of electrical fires.



Optimize reliability and continuity: Monitor protection settings, track system capacity, and optimize backup power systems.



Maximize operational lifecycle efficiency: Identify savings opportunities, avoid penalties, track consumption patterns, and analyze equipment performance.

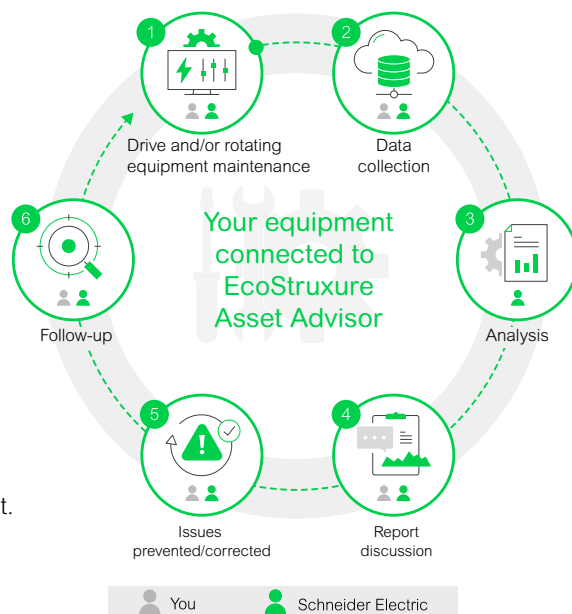


Simplify compliance: Align with energy efficiency standards, track energy performance, and comply with IT and cybersecurity best practices.

EcoStruxure Asset Advisor

Variable speed drives and motors link electrical systems to business processes, accounting for up to 60% of total energy consumption and up to 90% in heavy process industries. Downtime is costly — [EcoStruxure Asset Advisor](#), backed by our analytics and expert engineers, protects your drives 24/7 to help mitigate risks before problems occur by analyzing and modeling drive data for predictive maintenance and improved efficiency.

- 1 Drive maintenance:** Inspections, preventive maintenance, and electrical/mechanical checks.
- 2 Data collection:** Extract data from critical equipment on-premise or remotely and securely upload it to the cloud.
- 3 Analysis:** Use patented algorithms and motor current signature analysis (MCSA) to identify potential issues.
- 4 Report discussion:** A Schneider Electric expert interprets and summarizes issues and schedules a review of findings.
- 5 Issues prevented/corrected:** Address issues efficiently based on report findings and expert guidance during the next maintenance or on-demand visit.
- 6 Follow-up:** Review corrective actions, ensure issue resolution, and provide additional guidance.



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To learn more about Altivar Process Modular Drives, visit:
se.com/drives

Schneider Electric Industries SAS
35, rue Joseph Monier - CS 30323
F92506 Rueil-Malmaison Cedex

Product datasheet

Specifications



Standard ATV600 control unit, APM, single drive, 380...480V

APM6A0CTLN401

Main

Range of product	Altivar Process Modular
Product or component type	Control module
Device short name	APM
IP degree of protection	IP00 conforming to IEC 61800-5-1 IP00 conforming to IEC 60529
Kit composition	control unit graphical display terminal Digi-Link cable cable 24 V cable for voltage measurement
Supply frequency	50...60 Hz - 5...5 %
Safety function	STO (safe torque off) SIL 3
Discrete input logic	16 preset speeds
Communication port protocol	Ethernet Modbus serial Modbus TCP

Complementary

[Us] rated supply voltage	380...480 V
Frequency resolution	Display unit: 0.1 Hz Analog input: 0.012/50 Hz
Connector type	RJ45 (on the remote graphic terminal) for Ethernet/Modbus TCP RJ45 (on the remote graphic terminal) for Modbus serial
Physical interface	2-wire RS 485 for Modbus serial
Transmission frame	RTU for Modbus serial
Transmission rate	10/100 Mbit/s for Ethernet IP/Modbus TCP 4.8, 9.6, 19.2, 38.4 kbit/s for Modbus serial
Exchange mode	Half duplex, full duplex, autonegotiation Ethernet/Modbus TCP
Data format	8 bits, configurable odd, even or no parity for Modbus serial
Type of polarization	No impedance for Modbus serial
Number of addresses	1...247 for Modbus serial
Method of access	Slave Modbus TCP
Supply	External supply for digital inputs: 24 V DC (19...30 V), <1.25 mA, protection type: overload and short-circuit protection Internal supply for reference potentiometer (1 to 10 kOhm): 10.5 V DC +/- 5 %, <10 mA, protection type: overload and short-circuit protection Internal supply for digital inputs and STO: 24 V DC (21...27 V), <200 mA, protection type: overload and short-circuit protection

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Local signalling	3 LEDs for local diagnostic 3 LEDs (dual colour) for embedded communication status 4 LEDs (dual colour) for communication module status
Width	230 mm
Height	678.3 mm
Depth	108 mm
Net weight	7.1 kg
Analogue input number	3
Analogue input type	AI1, AI2, AI3 software-configurable voltage: 0...10 V DC, impedance: 30 kOhm, resolution 12 bits AI1, AI2, AI3 software-configurable current: 0...20 mA/4...20 mA, impedance: 250 Ohm, resolution 12 bits
Discrete input number	8
Discrete input type	DI1...DI6 programmable, 24 V DC (≤ 30 V), impedance: 3.5 kOhm DI5, DI6 programmable as pulse input: 0...30 kHz, 24 V DC (≤ 30 V) STOA, STOB safe torque off, 24 V DC (≤ 30 V), impedance: > 2.2 kOhm
Input compatibility	DI1...DI6: discrete input level 1 PLC conforming to IEC 61131-2 DI5, DI6: discrete input level 1 PLC conforming to IEC 65A-68 STOA, STOB: discrete input level 1 PLC conforming to IEC 61131-2
Discrete input logic	Positive logic (source) (DI1...DI6), < 5 V (state 0), > 11 V (state 1) Negative logic (sink) (DI1...DI6), > 16 V (state 0), < 10 V (state 1) Positive logic (source) (DI5, DI6), < 0.6 V (state 0), > 2.5 V (state 1) Positive logic (source) (STOA, STOB), < 5 V (state 0), > 11 V (state 1)
Analogue output number	2
Analogue output type	Software-configurable voltage AO1, AO2: 0...10 V DC impedance 470 Ohm, resolution 10 bits Software-configurable current AO1, AO2: 0...20 mA, resolution 10 bits
Sampling duration	2 ms $\pm$ 0.5 ms (DI1...DI4) - discrete input 5 ms $\pm$ 1 ms (DI5, DI6) - discrete input 5 ms $\pm$ 0.1 ms (AI1, AI2, AI3) - analog input 10 ms $\pm$ 1 ms (AO1) - analog output
Accuracy	$\pm$ 0.6 % AI1, AI2, AI3 for a temperature variation 60 °C analog input $\pm$ 1 % AO1, AO2 for a temperature variation 60 °C analog output
Linearity error	AI1, AI2, AI3: $\pm$ 0.15 % of maximum value for analog input AO1, AO2: $\pm$ 0.2 % for analog output
Relay output number	3
Relay output type	Configurable relay logic R1: fault relay NO/NC electrical durability 100000 cycles Configurable relay logic R2: sequence relay NO electrical durability 100000 cycles Configurable relay logic R3: sequence relay NO electrical durability 100000 cycles
Refresh time	Relay output (R1, R2, R3): 5 ms ($\pm$ 0.5 ms)
Minimum switching current	Relay output R1, R2, R3: 5 mA at 24 V DC
Maximum switching current	Relay output R1, R2, R3 on resistive load, $\cos \phi = 1$: 3 A at 250 V AC Relay output R1, R2, R3 on resistive load, $\cos \phi = 1$: 3 A at 30 V DC Relay output R1, R2, R3 on inductive load, $\cos \phi = 0.4$ and L/R = 7 ms: 2 A at 250 V AC Relay output R1, R2, R3 on inductive load, $\cos \phi = 0.4$ and L/R = 7 ms: 2 A at 30 V DC
Isolation	Between power and control terminals

Environment

Insulation resistance	> 1 MOhm 500 V DC for 1 minute to earth
Noise level	69 dB conforming to 86/188/EEC
Power dissipation in W	Forced convection: 2390 W, switching frequency 2.5 kHz
Maximum THDI	< 48 % full load conforming to IEC 61000-3-12

Electromagnetic compatibility	Electrostatic discharge immunity test level 3 conforming to IEC 61000-4-2 Radiated radio-frequency electromagnetic field immunity test level 3 conforming to IEC 61000-4-3 Electrical fast transient/burst immunity test level 4 conforming to IEC 61000-4-4 1.2/50 µs - 8/20 µs surge immunity test level 3 conforming to IEC 61000-4-5 Conducted radio-frequency immunity test level 3 conforming to IEC 61000-4-6
Pollution degree	2 conforming to IEC 61800-5-1
Vibration resistance	1.5 mm peak to peak (f= 2...13 Hz) conforming to IEC 60068-2-6 0.5 gn (f= 13...200 Hz) conforming to IEC 60068-2-6
Shock resistance	7 gn for 11 ms conforming to IEC 60068-2-27
Relative humidity	5...95 % without condensation conforming to IEC 60068-2-3
Ambient air temperature for operation	-10...40 °C (without derating) 40...50 °C (with derating factor)
Ambient air temperature for storage	-40...70 °C
Operating altitude	<= 1000 m without derating 1000...4800 m with current derating 1 % per 100 m
Environmental characteristic	Chemical pollution resistance class 3C3 conforming to IEC 60721-3-3 Dust pollution resistance class 3S3 conforming to IEC 60721-3-3
Standards	IEC 61800-3 IEC 61800-5-1 IEC 61000-3-12 IEC 60721-3 IEC 61508 IEC 13849-1
Product certifications	TÜV
Marking	CE

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	17.8 cm
Package 1 Width	28.7 cm
Package 1 Length	73.5 cm
Package 1 Weight	7.745 kg
Unit Type of Package 2	S06
Number of Units in Package 2	6
Package 2 Height	75 cm
Package 2 Width	60 cm
Package 2 Length	80 cm
Package 2 Weight	61.9 kg

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

Environmental footprint	
Total lifecycle Carbon footprint	2407
Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
SCIP Number	5b418692-6578-4a36-aac4-0bf9526de237

Use Again

Repack and remanufacture	
End of life manual availability	End of Life Information
Take-back	No

Product datasheet

Specifications



standard power module , Altivar Process Modular, 110...160kW, 380...480V, IP00

APM1A0C16N401

Main

Range of product	Altivar Process Modular
Product or component type	Power module
Device short name	APM
Product destination	Synchronous motors Asynchronous motors
Mounting mode	Cabinet mount
Kit composition	1 power module 1 mains unit 3 fuse holder 2 brackets with nuts screws and washers for fuse
EMC filter	Integrated with 300 m conforming to IEC 61800-3 category C3
IP degree of protection	IP00 conforming to IEC 61800-5-1 IP21 (for cabinet integration) conforming to IEC 61800-5-1 IP54 (for cabinet integration) conforming to IEC 61800-5-1
Supply frequency	50...60 Hz - 5...5 %
Network number of phases	3 phases
[Us] rated supply voltage	380...480 V - 10...10 %
Motor power kW	160 kW at 380...480 V (normal duty) 132 kW at 380...480 V (heavy duty)
Motor power hp	250 hp at 480 V normal duty 200 hp at 480 V heavy duty

Complementary

Degree of protection	UL type 1 conforming to UL 61800-5-1 (cabinet integration) UL type 12 conforming to UL 61800-5-1 (cabinet integration)
Prospective line Isc	50 kA
Apparent power	223 kVA at 380...480 V normal duty 181 kVA at 380...480 V heavy duty
Continuous output current	302 A at 2.5 kHz for normal duty 250 A at 2.5 kHz for heavy duty
Switching frequency	2.5...8 kHz with derating factor 2...8 kHz adjustable
Permissible temporary current boost	1.1 x In during 60 s (normal duty) 1.5 x In during 60 s (heavy duty)
Width	230 mm
Height	1705 mm
Depth	510 mm

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Net weight	155 kg
Marking	CE

Environment

Insulation resistance	> 1 MOhm 500 V DC for 1 minute to earth
Operating position	Vertical +/- 10 degree
Maximum THDI	<48 % from 80...100 % of load
Electromagnetic compatibility	Electrostatic discharge immunity test level 3 conforming to IEC 61000-4-2 Radiated radio-frequency electromagnetic field immunity test level 3 conforming to IEC 61000-4-3 Electrical fast transient/burst immunity test level 4 conforming to IEC 61000-4-4 1.2/50 µs - 8/20 µs surge immunity test level 3 conforming to IEC 61000-4-5 Conducted radio-frequency immunity test level 3 conforming to IEC 61000-4-6
Pollution degree	2 conforming to IEC 61800-5-1
Vibration resistance	1.5 mm peak to peak (f= 2...13 Hz) conforming to IEC 60068-2-6 0.5 gn (f= 13...200 Hz) conforming to IEC 60068-2-6
Shock resistance	7 gn for 11 ms conforming to IEC 60068-2-27
Relative humidity	5...95 % without condensation conforming to IEC 60068-2-3
Ambient air temperature for operation	-10...40 °C (without derating) 40...50 °C (with derating factor)
Ambient air temperature for storage	-40...70 °C
Operating altitude	<= 4800 m with current derating above 1000m
Environmental characteristic	Chemical pollution resistance class 3C3 conforming to IEC 60721-3-3 Dust pollution resistance class 3S3 conforming to IEC 60721-3-3
Standards	IEC 61800-3 IEC 61800-5-1 IEC 61000-3-12 IEC 60721-3 IEC 61508 IEC 13849-1
Product certifications	TÜV cUL

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	68.000 cm
Package 1 Width	74.000 cm
Package 1 Length	135.000 cm
Package 1 Weight	185.000 kg

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

 Environmental footprint	
Total lifecycle Carbon footprint	168319
Environmental Disclosure	Product Environmental Profile

Use Better

 Materials and Packaging	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
SCIP Number	3bbb22c2-1823-4e45-bb65-ca06bd66095b

Use Again

 Repack and remanufacture	
End of life manual availability	End of Life Information
Take-back	No