

ANL 021H -203H

Reversible air/water heat pump

Cooling capacity 5,7 ÷ 49,1 kW
Heating capacity 6,2 ÷ 43,3 kW

- It is possible to produce hot domestic water
- Compact dimensions
- Quick & easy installation



DESCRIPTION

Reversible air/water heat pump for air conditioning systems with cold water production for cooling rooms and hot water for heating and/or domestic hot water services, suitable for connection with small or medium users.

Equipped with scroll compressors, axial fans, external coil with aluminium louvers, plate heat exchanger on the side.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard

A With storage tank and pump

N With increased pump

P With pump

Q With storage tank and increased pump

FEATURES

Operating field

Full load up to 46 °C ambient air temperature with the possibility to produce chilled water down to -10° C in cooling mode (for more details refer to the technical documentation).

Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to facilitate installation.

Inverter fans

Inverter fans from size 031 to 091 for all sizes.

■ *The DCPX accessory is not required for these sizes.*

Double mechanical thermostat

On the configurator it is also possible to select the option "W" double mechanical thermostatic valve for low temperatures.

Using two electronic valves in parallel guarantees a precise and efficient control in a wide operating range. This allows them to produce chilled water from -10 °C to +18 °C.

■ *The option is available only for sizes starting from 051 to 091 in the °A-Q versions and from size 103 to 203 in all versions.*

MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

ACCESSORIES

MODU-485BL: RS-485 interface for supervision systems with MODBUS protocol.

MULTICONTROL: Allows the simultaneous control of several units (up to 4), installed in the same hydraulic system.

PR3: Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.

SDHW: Domestic hot water sensor. To be used with a storage tank for the control of water temperature produced.

SPLW: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring

VMF-CRP: Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with the VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.

DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

VT: Antivibration supports

BDX: Condensate drip.

KRB: Electric anti-freeze resistance kit for base.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

RA: Anti-freeze electric heater for the buffer tank.

KR: Anti-freeze electric heater for the plate heat exchanger.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

| Model | Ver | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103 | 153 | 203 |
|--------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| MODU-485BL | °A,P | . | . | . | . | . | . | . | . | . | . | . |
| | N | | | | | | | | | . | . | . |
| | Q | | | | | . | . | . | . | . | . | . |
| MULTICONTROL | °A,P | . | . | . | . | . | . | . | . | . | . | . |
| | N | | | | | | | | | . | . | . |
| | Q | | | | | . | . | . | . | . | . | . |
| PR3 | °A,P | . | . | . | . | . | . | . | . | . | . | . |
| | N | | | | | | | | | . | . | . |
| | Q | | | | | . | . | . | . | . | . | . |
| SDHW (1) | °A,P | . | . | . | . | . | . | . | . | . | . | . |
| | N | | | | | | | | | . | . | . |
| | Q | | | | | . | . | . | . | . | . | . |
| SPLW (2) | °A,P | . | . | . | . | . | . | . | . | . | . | . |
| | N | | | | | | | | | . | . | . |
| | Q | | | | | . | . | . | . | . | . | . |
| VMF-CRP | °A,P | . | . | . | . | . | . | . | . | . | . | . |
| | N | | | | | | | | | . | . | . |
| | Q | | | | | . | . | . | . | . | . | . |

(1) Probe required for MULTICONTROL for managing the domestic hot water system.

(2) Probe required for MULTICONTROL to manage the secondary circuit system.

DCPX: Condensation control temperature

| Ver | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103 | 153 | 203 |
|------|--------|--------|-----|-----|-----|-----|-----|-----|--------|--------|--------|
| °A,P | DCPX51 | DCPX51 | - | - | - | - | - | - | DCPX53 | DCPX53 | DCPX53 |
| Q | - | - | - | - | - | - | - | - | DCPX53 | DCPX53 | DCPX53 |

The accessory cannot be fitted on the configurations indicated with -

Antivibration

| Ver | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103 | 153 | 203 |
|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|
| °P | VT9 | VT9 | VT9 | VT9 | VT9 | VT9 | VT9 | VT9 | VT15 | VT15 | VT15 |
| A | VT9 | VT9 | VT9 | VT9 | VT15 |
| N | - | - | - | - | - | - | - | - | VT15 | VT15 | VT15 |
| Q | - | - | - | - | VT15 |

Condensate drip

| Ver | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103 | 153 | 203 |
|-----|------|------|------|------|------|------|------|------|-----|-----|-----|
| °P | BDX5 | - | - | - |
| A | BDX5 | BDX5 | BDX5 | BDX5 | BDX6 | BDX6 | BDX6 | BDX6 | - | - | - |
| Q | - | - | - | - | BDX6 | BDX6 | BDX6 | BDX6 | - | - | - |

The accessory cannot be fitted on the configurations indicated with -

DRE: Device for peak current reduction

| Ver | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103 | 153 | 203 |
|--------|-----|-----|-----|-----|----------|----------|----------|----------|--------------|--------------|--------------|
| °A,P,Q | - | - | - | - | DRE5 (1) | DRE5 (1) | DRE5 (1) | DRE5 (1) | DRE5 x 2 (1) | DRE5 x 2 (1) | DRE5 x 2 (1) |
| N | - | - | - | - | - | - | - | - | DRE5 x 2 (1) | DRE5 x 2 (1) | DRE5 x 2 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

KR: electric heater for the heat exchanger

| Ver | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103 | 153 | 203 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|
| °P | KR2 | KR100 | KR100 | KR100 |
| A | - | - | - | - | KR2 | KR2 | KR2 | KR2 | KR100 | KR100 | KR100 |
| N,Q | - | - | - | - | - | - | - | - | KR100 | KR100 | KR100 |

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

RA: Anti-freeze electric heater for the buffer tank

| Ver | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103 | 153 | 203 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|
| A | RA | RA100 | RA100 | RA100 |
| Q | - | - | - | - | RA | RA | RA | RA | RA100 | RA100 | RA100 |

A grey background indicates the accessory must be assembled in the factory

KRB: Electric heater for the base

| Ver | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103 | 153 | 203 |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|----------|----------|----------|
| °A,N,P,Q | - | - | - | - | - | - | - | - | KRB3 (1) | KRB3 (1) | KRB3 (1) |

(1) Incompatible with the condensate collection basin accessory with integrated resistance.
The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

| Field | Description |
|--------------|--|
| 1,2,3 | ANL |
| 4,5,6 | Size 021, 026, 031, 041, 051, 071, 081, 091, 103, 153, 203 |
| 7 | Model |
| H | Heat pump |
| 8 | Version |
| ° | Standard |
| A | With storage tank and pump |
| N | With increased pump (1) |
| P | With pump |
| Q | With storage tank and increased pump (2) |
| 9 | Heat recovery |
| ° | Without heat recovery |
| D | With desuperheater (3) |
| 10 | Coils |
| ° | Copper-aluminium |
| R | Copper pipes-copper fins |
| S | Copper pipes-Tinned copper fins |
| V | Copper pipes-Coated aluminium fins |
| 11 | Operating field |
| ° | Standard mechanic thermostatic valve |
| W | Double mechanic thermostat for low temperature (4) |
| 12 | Evaporator |
| ° | Standard |
| 13 | Power supply |
| ° | 400V 3N ~ 50Hz (5) |
| M | 230V ~ 50Hz (6) |

(1) Only for ANL 103 ÷ 203 sizes

(2) Only for ANL 051 ÷ 203 sizes

(3) The desuperheater must be intercepted during heating mode. If the unit is also fitted with one of the low temperature valves in addition to the desuperheater, during cold operation, it is necessary to always guarantee a water temperature of 35°C at the inlet of the heat exchanger. It is only available in sizes from 051 to 091 in the version with storage tank "A", and from size 103 to 203 in all versions.

(4) Water produced from -10 °C to 18 °C; Option available only for sizes starting from 051 to 091 in the °A-Q versions and from 103 to 203 in all versions

(5) Only for ANL 021 ÷ 203 sizes

(6) Only for ANL 021 ÷ 041 sizes

PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

ANL - (H^o) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

| Size | | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103 | 153 | 203 |
|---|-----|------|------|------|------|------|------|------|------|------|------|------|
| Cooling performance 12 °C/ 7 °C (1) | | | | | | | | | | | | |
| Cooling capacity | kW | 5,7 | 6,2 | 7,5 | 9,6 | 13,3 | 16,3 | 20,0 | 21,5 | 25,5 | 31,7 | 40,2 |
| Input power | kW | 1,9 | 2,0 | 2,5 | 3,3 | 4,4 | 5,9 | 6,7 | 6,7 | 9,2 | 11,0 | 14,1 |
| Cooling total input current - 400V | A | 3,7 | 4,2 | 4,7 | 6,2 | 8,7 | 9,7 | 12,0 | 13,0 | 16,0 | 19,0 | 25,0 |
| Cooling total input current - 230V | A | 6,4 | 7,3 | 8,1 | 11,0 | - | - | - | - | - | - | - |
| EER | W/W | 3,02 | 3,02 | 2,98 | 2,90 | 3,06 | 2,77 | 3,01 | 3,21 | 2,79 | 2,87 | 2,85 |
| Water flow rate system side | l/h | 979 | 1065 | 1289 | 1649 | 2294 | 2807 | 3452 | 3713 | 4398 | 5467 | 6929 |
| Pressure drop system side | kPa | 30 | 31 | 32 | 30 | 34 | 35 | 44 | 60 | 55 | 57 | 62 |
| Heating performance 40 °C/ 45 °C (2) | | | | | | | | | | | | |
| Heating capacity | kW | 6,2 | 7,0 | 8,4 | 9,8 | 13,3 | 17,4 | 21,0 | 22,1 | 26,2 | 35,5 | 42,0 |
| Input power | kW | 1,9 | 2,2 | 2,7 | 3,1 | 4,1 | 5,2 | 6,0 | 6,4 | 8,8 | 11,1 | 12,7 |
| Heating total input current - 400V | A | 3,8 | 4,4 | 5,4 | 6,8 | 9,5 | 10,0 | 13,0 | 14,0 | 17,0 | 19,0 | 25,0 |
| Heating total input current - 230V | A | 6,6 | 7,6 | 9,3 | 12,0 | - | - | - | - | - | - | - |
| COP | W/W | 3,21 | 3,27 | 3,17 | 3,22 | 3,21 | 3,32 | 3,49 | 3,47 | 2,99 | 3,21 | 3,32 |
| Water flow rate system side | l/h | 1078 | 1217 | 1460 | 1700 | 2294 | 3007 | 3638 | 3827 | 4529 | 6137 | 7265 |
| Pressure drop system side | kPa | 36 | 40 | 41 | 37 | 38 | 39 | 53 | 72 | 70 | 70 | 78 |

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANL - (HA/HP) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

| Size | | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103 | 153 | 203 |
|---|-----|------|------|------|------|------|------|------|------|------|-------|-------|
| Cooling performance 12 °C/ 7 °C (1) | | | | | | | | | | | | |
| Cooling capacity | kW | 5,7 | 6,2 | 7,6 | 9,7 | 13,4 | 16,4 | 20,2 | 21,7 | 25,8 | 32,1 | 40,6 |
| Input power | kW | 1,8 | 2,0 | 2,5 | 3,2 | 4,3 | 5,8 | 6,6 | 6,6 | 9,2 | 11,1 | 14,2 |
| Cooling total input current - 400V | A | 4,0 | 4,5 | 5,0 | 6,6 | 9,3 | 10,0 | 13,0 | 13,0 | 17,0 | 21,0 | 27,0 |
| Cooling total input current - 230V | A | 6,9 | 7,9 | 8,7 | 11,0 | - | - | - | - | - | - | - |
| EER | W/W | 3,11 | 3,12 | 3,07 | 2,97 | 3,11 | 2,82 | 3,06 | 3,29 | 2,79 | 2,89 | 2,87 |
| Water flow rate system side | l/h | 979 | 1065 | 1289 | 1649 | 2294 | 2807 | 3452 | 3713 | 4398 | 5467 | 6929 |
| Useful head system side | kPa | 73,0 | 73,0 | 71,0 | 65,0 | 76,0 | 72,0 | 57,0 | 52,0 | 88,0 | 125,0 | 111,0 |
| Heating performance 40 °C/ 45 °C (2) | | | | | | | | | | | | |
| Heating capacity | kW | 6,2 | 7,0 | 8,3 | 9,7 | 13,1 | 17,2 | 20,9 | 21,9 | 25,9 | 35,0 | 41,5 |
| Input power | kW | 1,9 | 2,1 | 2,6 | 3,0 | 4,1 | 5,2 | 5,9 | 6,3 | 8,9 | 11,2 | 12,7 |
| Heating total input current - 400V | A | 4,1 | 4,7 | 5,8 | 7,2 | 10,0 | 11,0 | 14,0 | 14,0 | 18,0 | 21,0 | 27,0 |
| Heating total input current - 230V | A | 7,2 | 8,2 | 9,9 | 12,0 | - | - | - | - | - | - | - |
| COP | W/W | 3,23 | 3,30 | 3,21 | 3,25 | 3,20 | 3,33 | 3,51 | 3,51 | 2,92 | 3,14 | 3,26 |
| Water flow rate system side | l/h | 1078 | 1217 | 1460 | 1700 | 2294 | 3007 | 3638 | 3827 | 4529 | 6137 | 7265 |
| Useful head system side | kPa | 68,0 | 67,0 | 65,0 | 58,0 | 72,0 | 65,0 | 46,0 | 40,0 | 64,0 | 94,0 | 68,0 |

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANL - (HN/HQ) - (400V 3N ~ 50Hz)

| Size | | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103 | 153 | 203 |
|---|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|
| Cooling performance 12 °C/ 7 °C (1) | | | | | | | | | | | | |
| Cooling capacity | kW | - | - | - | - | 13,5 | 16,5 | 20,3 | 21,8 | 25,8 | 32,1 | 40,6 |
| Input power | kW | - | - | - | - | 4,4 | 5,9 | 6,7 | 6,7 | 9,6 | 11,4 | 14,5 |
| Cooling total input current - 400V | A | - | - | - | - | 9,7 | 11,0 | 13,0 | 14,0 | 18,0 | 21,0 | 27,0 |
| EER | W/W | - | - | - | - | 3,05 | 2,78 | 3,03 | 3,25 | 2,68 | 2,82 | 2,81 |
| Water flow rate system side | l/h | - | - | - | - | 2294 | 2807 | 3452 | 3713 | 4398 | 5467 | 6929 |
| Useful head system side - ver. "Q" | kPa | - | - | - | - | 160 | 159 | 144 | 140 | 147 | 192 | 170 |
| Useful head system side - ver. "N" | kPa | - | - | - | - | - | - | - | - | 147 | 192 | 170 |
| Heating performance 40 °C/ 45 °C (2) | | | | | | | | | | | | |
| Heating capacity | kW | - | - | - | - | 13,0 | 17,1 | 20,8 | 21,8 | 25,9 | 35,0 | 41,5 |
| Input power | kW | - | - | - | - | 4,2 | 5,3 | 6,1 | 6,4 | 9,3 | 11,4 | 13,0 |
| Heating total input current - 400V | A | - | - | - | - | 10,0 | 11,0 | 14,0 | 15,0 | 19,0 | 21,0 | 28,0 |
| COP | W/W | - | - | - | - | 3,10 | 3,24 | 3,42 | 3,43 | 2,78 | 3,07 | 3,19 |
| Water flow rate system side | l/h | - | - | - | - | 2294 | 3007 | 3638 | 3827 | 4529 | 6137 | 7265 |
| Useful head system side - ver. "Q" | kPa | - | - | - | - | 154 | 151 | 131 | 126 | 107 | 169 | 141 |
| Useful head system side - ver. "N" | kPa | - | - | - | - | - | - | - | - | 107 | 169 | 141 |

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

PERFORMANCE SPECIFICATIONS 23 °C/ 18 °C - 30 °C/ 35 °C

ANL - (H^o) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

| Size | | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103 | 153 | 203 |
|---|-----|------|------|------|------|------|------|------|------|------|------|------|
| Cooling performance 23 °C/ 18 °C (1) | | | | | | | | | | | | |
| Cooling capacity | kW | 6,9 | 7,5 | 9,0 | 11,6 | 16,1 | 19,7 | 24,2 | 26,0 | 30,8 | 38,3 | 48,5 |
| Input power | kW | 2,0 | 2,1 | 2,6 | 3,4 | 4,5 | 6,1 | 7,0 | 7,1 | 9,6 | 11,6 | 14,8 |
| Cooling total input current - 400V | A | 3,8 | 4,3 | 4,9 | 6,4 | 9,0 | 10,0 | 13,0 | 13,0 | 16,0 | 19,0 | 26,0 |
| Cooling total input current - 230V | A | 6,6 | 7,6 | 8,4 | 11,0 | - | - | - | - | - | - | - |
| EER | W/W | 3,50 | 3,50 | 3,45 | 3,36 | 3,54 | 3,21 | 3,47 | 3,68 | 3,21 | 3,31 | 3,27 |
| Water flow rate system side | l/h | 1189 | 1293 | 1564 | 2002 | 2784 | 3407 | 4189 | 4506 | 5338 | 6636 | 8410 |
| Pressure drop system side | kPa | 44 | 46 | 47 | 44 | 50 | 52 | 65 | 88 | 81 | 84 | 92 |
| Heating performance 30 °C/ 35 °C (2) | | | | | | | | | | | | |
| Heating capacity | kW | 6,5 | 7,3 | 8,8 | 10,3 | 13,8 | 18,1 | 21,9 | 23,1 | 27,3 | 37,0 | 43,9 |
| Input power | kW | 1,7 | 1,9 | 2,3 | 2,7 | 3,5 | 4,7 | 5,4 | 5,7 | 7,8 | 9,9 | 11,3 |
| Heating total input current - 400V | A | 3,3 | 3,8 | 4,6 | 6,0 | 8,1 | 9,1 | 11,0 | 12,0 | 15,0 | 17,0 | 22,0 |
| Heating total input current - 230V | A | 5,6 | 6,5 | 8,0 | 10,0 | - | - | - | - | - | - | - |
| COP | W/W | 3,88 | 3,96 | 3,85 | 3,77 | 3,90 | 3,89 | 4,08 | 4,05 | 3,49 | 3,74 | 3,87 |
| Water flow rate system side | l/h | 1120 | 1265 | 1518 | 1767 | 2385 | 3126 | 3782 | 3979 | 4709 | 6381 | 7553 |
| Pressure drop system side | kPa | 39 | 43 | 44 | 40 | 41 | 42 | 57 | 78 | 76 | 76 | 84 |

(1) Data 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 30 °C/ 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANL - (HA/HP) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

| Size | | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103 | 153 | 203 |
|---|-----|------|------|------|------|------|------|------|------|------|------|------|
| Cooling performance 23 °C/ 18 °C (1) | | | | | | | | | | | | |
| Cooling capacity | kW | 6,9 | 7,5 | 9,1 | 11,7 | 16,2 | 19,8 | 24,4 | 26,2 | 31,1 | 38,8 | 49,1 |
| Input power | kW | 1,9 | 2,1 | 2,6 | 3,4 | 4,5 | 6,0 | 6,9 | 6,9 | 9,7 | 11,6 | 14,8 |
| Cooling total input current - 400V | A | 4,2 | 4,7 | 5,2 | 6,8 | 9,7 | 11,0 | 13,0 | 14,0 | 17,0 | 21,0 | 28,0 |
| Cooling total input current - 230V | A | 7,2 | 8,2 | 9,0 | 12,0 | - | - | - | - | - | - | - |
| EER | W/W | 3,63 | 3,63 | 3,58 | 3,46 | 3,62 | 3,28 | 3,55 | 3,81 | 3,21 | 3,36 | 3,32 |
| Water flow rate system side | l/h | 1189 | 1293 | 1564 | 2002 | 2784 | 3407 | 4189 | 4506 | 5338 | 6636 | 8410 |
| Useful head system side | kPa | 63,0 | 63,0 | 60,0 | 51,0 | 60,0 | 53,0 | 31,0 | 24,0 | 47,0 | 63,0 | 41,0 |
| Heating performance 30 °C/ 35 °C (2) | | | | | | | | | | | | |
| Heating capacity | kW | 6,4 | 7,3 | 8,7 | 10,2 | 13,7 | 18,0 | 21,8 | 22,9 | 27,1 | 36,6 | 43,3 |
| Input power | kW | 1,6 | 1,8 | 2,2 | 2,7 | 3,5 | 4,6 | 5,3 | 5,6 | 8,0 | 10,0 | 11,4 |
| Heating total input current - 400V | A | 3,6 | 4,1 | 5,0 | 6,4 | 8,8 | 9,8 | 12,0 | 13,0 | 16,0 | 19,0 | 24,0 |
| Heating total input current - 230V | A | 6,2 | 7,1 | 8,6 | 11,0 | - | - | - | - | - | - | - |
| COP | W/W | 3,93 | 4,02 | 3,91 | 3,81 | 3,90 | 3,91 | 4,11 | 4,11 | 3,40 | 3,67 | 3,81 |
| Water flow rate system side | l/h | 1120 | 1265 | 1518 | 1767 | 2385 | 3126 | 3782 | 3979 | 4709 | 6381 | 7553 |
| Useful head system side | kPa | 67,0 | 64,0 | 62,0 | 55,0 | 69,0 | 61,0 | 41,0 | 34,0 | 55,0 | 81,0 | 53,0 |

(1) Data 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 30 °C/ 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANL - (HN/HQ) - (400V 3N ~ 50Hz)

| Size | | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103 | 153 | 203 |
|---|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|
| Cooling performance 23 °C/ 18 °C (1) | | | | | | | | | | | | |
| Cooling capacity | kW | - | - | - | - | 16,3 | 19,9 | 24,5 | 26,3 | 31,1 | 38,7 | 49,0 |
| Input power | kW | - | - | - | - | 4,6 | 6,2 | 7,0 | 7,0 | 10,2 | 11,9 | 15,2 |
| Cooling total input current - 400V | A | - | - | - | - | 10,0 | 11,0 | 14,0 | 14,0 | 18,0 | 22,0 | 28,0 |
| EER | W/W | - | - | - | - | 3,54 | 3,23 | 3,51 | 3,76 | 3,07 | 3,25 | 3,23 |
| Water flow rate system side | l/h | - | - | - | - | 2784 | 3407 | 4189 | 4506 | 5338 | 6636 | 8410 |
| Useful head system side - ver. "Q" | kPa | - | - | - | - | 136 | 135 | 114 | 108 | 79 | 146 | 114 |
| Useful head system side - ver. "N" | kPa | - | - | - | - | - | - | - | - | 79 | 146 | 114 |
| Heating performance 30 °C/ 35 °C (2) | | | | | | | | | | | | |
| Heating capacity | kW | - | - | - | - | 13,6 | 17,9 | 21,7 | 22,8 | 27,0 | 36,6 | 43,4 |
| Input power | kW | - | - | - | - | 3,6 | 4,7 | 5,4 | 5,7 | 8,4 | 10,2 | 11,7 |
| Heating total input current - 400V | A | - | - | - | - | 9,1 | 10,0 | 13,0 | 13,0 | 17,0 | 19,0 | 25,0 |
| COP | W/W | - | - | - | - | 3,75 | 3,79 | 4,00 | 4,01 | 3,22 | 3,57 | 3,71 |
| Water flow rate system side | l/h | - | - | - | - | 2385 | 3126 | 3782 | 3979 | 4709 | 6381 | 7553 |
| Useful head system side - ver. "Q" | kPa | - | - | - | - | 149 | 146 | 125 | 119 | 92 | 159 | 129 |
| Useful head system side - ver. "N" | kPa | - | - | - | - | - | - | - | - | 92 | 159 | 129 |

(1) Data 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 30 °C/ 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

| Size | | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103 | 153 | 203 | |
|---|-----|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Power supply: ° | | | | | | | | | | | | | |
| Cooling capacity with low leaving water temp (UE n° 2016/2281) | | | | | | | | | | | | | |
| SEER | ° | W/W | 3,13 | 3,19 | 3,28 | 3,34 | 3,76 | 3,49 | 3,80 | 3,91 | 3,58 | 3,74 | 3,73 |
| | A,P | W/W | 3,29 | 3,36 | 3,45 | 3,50 | 3,89 | 3,69 | 3,99 | 4,16 | 3,55 | 3,53 | 3,55 |
| | N | W/W | - | - | - | - | - | - | - | - | 3,14 | 3,48 | 3,53 |
| | Q | W/W | - | - | - | - | 3,30 | 3,24 | 3,53 | 3,75 | 3,14 | 3,48 | 3,53 |
| η _{sc} | ° | % | 122,00 | 125,00 | 128,00 | 131,00 | 147,00 | 137,00 | 149,00 | 153,00 | 140,00 | 146,00 | 146,00 |
| | A,P | % | 129,00 | 131,00 | 135,00 | 137,00 | 153,00 | 145,00 | 157,00 | 163,00 | 139,00 | 138,00 | 139,00 |
| | N | % | - | - | - | - | - | - | - | - | 123,00 | 136,00 | 138,00 |
| | Q | % | - | - | - | - | 129,00 | 127,00 | 138,00 | 147,00 | 123,00 | 136,00 | 138,00 |
| UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1) | | | | | | | | | | | | | |
| Pdesignh | ° | kW | 6,00 | 6,00 | 8,00 | 9,00 | 13,00 | 16,00 | 20,00 | 21,00 | 25,00 | 33,00 | 40,00 |
| | A,P | kW | 6,00 | 6,00 | 8,00 | 9,00 | 12,00 | 16,00 | 20,00 | 21,00 | 24,00 | 33,00 | 39,00 |
| | N | kW | - | - | - | - | - | - | - | - | 24,00 | 33,00 | 39,00 |
| | Q | kW | - | - | - | - | 12,00 | 16,00 | 19,00 | 21,00 | 24,00 | 33,00 | 39,00 |
| SCOP | ° | | 3,30 | 3,30 | 3,33 | 3,28 | 3,43 | 3,43 | 3,58 | 3,50 | 3,53 | 3,58 | 3,70 |
| | A,P | | 3,40 | 3,40 | 3,40 | 3,35 | 3,48 | 3,48 | 3,60 | 3,53 | 3,45 | 3,45 | 3,60 |
| | N | | - | - | - | - | - | - | - | - | 3,23 | 3,35 | 3,53 |
| | Q | | - | - | - | - | 3,23 | 3,28 | 3,43 | 3,40 | 3,23 | 3,35 | 3,53 |
| η _{sh} | ° | % | 129,00 | 129,00 | 130,00 | 128,00 | 134,00 | 134,00 | 140,00 | 137,00 | 138,00 | 140,00 | 145,00 |
| | A,P | % | 133,00 | 133,00 | 133,00 | 131,00 | 136,00 | 136,00 | 141,00 | 138,00 | 135,00 | 135,00 | 141,00 |
| | N | % | - | - | - | - | - | - | - | - | 126,00 | 131,00 | 138,00 |
| | Q | % | - | - | - | - | 126,00 | 128,00 | 134,00 | 133,00 | 126,00 | 131,00 | 138,00 |
| Efficiency energy class | ° | | A+ | A++ | A++ |
| | A,P | | A+ |
| | N | | - | - | - | - | - | - | - | - | A+ | A+ | A+ |
| | Q | | - | - | - | - | A+ |

(1) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

| Size | | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103 | 153 | 203 | |
|------------------------|-----|-----|------|------|------|------|------|------|-------|------|------|------|-------|
| Power supply: ° | | | | | | | | | | | | | |
| Electric data | | | | | | | | | | | | | |
| Maximum current (FLA) | ° | A | 7,0 | 7,0 | 7,7 | 9,7 | 11,3 | 13,5 | 16,3 | 17,3 | 22,0 | 26,0 | 32,0 |
| | A,P | A | 7,7 | 7,7 | 8,4 | 10,4 | 13,3 | 15,5 | 18,3 | 19,3 | 23,9 | 29,1 | 35,1 |
| | N | A | - | - | - | - | - | - | - | - | 26,2 | 30,2 | 36,2 |
| | Q | A | - | - | - | - | 14,0 | 13,5 | 19,0 | 20,0 | 26,2 | 30,2 | 36,2 |
| Peak current (LRA) | ° | A | 27,5 | 33,5 | 36,7 | 49,7 | 65,3 | 75,3 | 102,3 | 96,3 | 76,0 | 87,0 | 117,0 |
| | A,P | A | 28,2 | 34,2 | 37,4 | 50,4 | 67,3 | 75,3 | 104,3 | 98,3 | 77,9 | 90,1 | 120,1 |
| | N | A | - | - | - | - | - | - | - | - | 80,2 | 91,2 | 121,2 |
| | Q | A | - | - | - | - | 68,0 | 75,3 | 105,0 | 99,0 | 80,2 | 91,2 | 121,2 |
| Power supply: M | | | | | | | | | | | | | |
| Electric data | | | | | | | | | | | | | |
| Maximum current (FLA) | ° | A | 17,5 | 17,5 | 20,7 | 24,7 | - | - | - | - | - | - | - |
| | A,P | A | 18,5 | 18,5 | 20,5 | 25,6 | - | - | - | - | - | - | - |
| | N,Q | A | - | - | - | - | - | - | - | - | - | - | - |
| Peak current (LRA) | ° | A | 59,5 | 62,5 | 83,7 | 98,7 | - | - | - | - | - | - | - |
| | A,P | A | 60,5 | 63,5 | 84,5 | 99,6 | - | - | - | - | - | - | - |
| | N,Q | A | - | - | - | - | - | - | - | - | - | - | - |

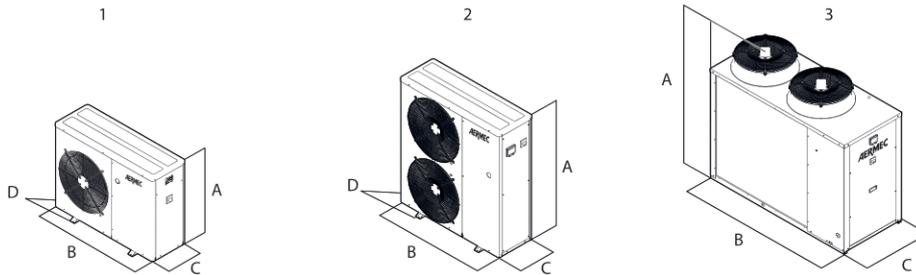
GENERAL TECHNICAL DATA

| Size | | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103 | 153 | 203 | |
|--|-------------------|--------------|--------------|--------------|----------|----------|----------|--------------|----------|--------------|--------------|--------------|--|
| Compressor | | | | | | | | | | | | | |
| Type | type | | | | | | | Scroll | | | | | |
| Compressor regulation | Type | | | | | | | On-Off | | | | | |
| Number | no. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | |
| Circuits | no. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| Refrigerant | type | | | | | | | R410A | | | | | |
| Refrigerant charge (1) | kg | 1,8 | 1,8 | 2,0 | 2,0 | 2,9 | 2,9 | 3,1 | 3,9 | 4,6 | 5,4 | 5,7 | |
| System side heat exchanger | | | | | | | | | | | | | |
| Type | type | | | | | | | Brazed plate | | | | | |
| Number | no. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| Hydraulic connections | | | | | | | | | | | | | |
| Connections (in/out) | Type | | | | | | | Gas - F | | | | | |
| Sizes (in/out) | Ø | | | | | | | 1" 1/4 | | | | | |
| Fan | | | | | | | | | | | | | |
| Type | type | | | | | | | Axial | | | | | |
| Fan motor | type | Asynchronous | Asynchronous | Asynchronous | Inverter | Inverter | Inverter | Inverter | Inverter | Asynchronous | Asynchronous | Asynchronous | |
| Number | no. | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | |
| Air flow rate | m ³ /h | 2500 | 2500 | 3500 | 3500 | 7200 | 7200 | 7300 | 7200 | 14000 | 13500 | 13500 | |
| Sound data calculated in cooling mode (2) | | | | | | | | | | | | | |
| Sound power level | dB(A) | 61,0 | 61,0 | 68,0 | 68,0 | 69,0 | 69,0 | 69,0 | 68,0 | 76,0 | 77,0 | 78,0 | |
| Sound pressure level (10 m) | dB(A) | 29,8 | 29,8 | 36,8 | 36,8 | 37,6 | 37,6 | 37,6 | 36,6 | 44,5 | 45,5 | 46,5 | |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



- 1 ANL 021 - 041
- 2 ANL 051 - 091
- 3 ANL 103 - 203

| Size | | | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103 | 153 | 203 |
|-------------------------------|----|----|------|------|------|------|------|------|------|------|------|------|------|
| Dimensions and weights | | | | | | | | | | | | | |
| A | °P | mm | 1000 | 1000 | 1000 | 1000 | 1252 | 1252 | 1252 | 1252 | 1450 | 1450 | 1450 |
| | A | mm | 1015 | 1015 | 1015 | 1015 | 1281 | 1281 | 1281 | 1281 | 1450 | 1450 | 1450 |
| | N | mm | - | - | - | - | - | - | - | - | 1450 | 1450 | 1450 |
| | Q | mm | - | - | - | - | 1281 | 1281 | 1281 | 1281 | 1450 | 1450 | 1450 |
| B | °P | mm | 900 | 900 | 900 | 900 | 1124 | 1124 | 1124 | 1124 | 1750 | 1750 | 1750 |
| | A | mm | 1124 | 1124 | 1124 | 1124 | 1165 | 1165 | 1165 | 1165 | 1750 | 1750 | 1750 |
| | N | mm | - | - | - | - | - | - | - | - | 1750 | 1750 | 1750 |
| | Q | mm | - | - | - | - | 1165 | 1165 | 1165 | 1165 | 1750 | 1750 | 1750 |
| C | °P | mm | 310 | 310 | 310 | 310 | 384 | 384 | 384 | 384 | 750 | 750 | 750 |
| | A | mm | 384 | 384 | 384 | 384 | 550 | 550 | 550 | 550 | 750 | 750 | 750 |
| | N | mm | - | - | - | - | - | - | - | - | 750 | 750 | 750 |
| | Q | mm | - | - | - | - | 550 | 550 | 550 | 550 | 750 | 750 | 750 |
| D | °P | mm | 354 | 354 | 354 | 354 | 428 | 428 | 428 | 428 | - | - | - |
| | A | mm | 428 | 428 | 428 | 428 | - | - | - | - | - | - | - |
| | N | mm | - | - | - | - | - | - | - | - | - | - | - |
| | Q | mm | - | - | - | - | - | - | - | - | - | - | - |
| Empty weight | ° | kg | 86 | 86 | 86 | 86 | 120 | 120 | 120 | 156 | 270 | 293 | 329 |
| | A | kg | 103 | 103 | 103 | 103 | 147 | 147 | 183 | 183 | 338 | 364 | 400 |
| | N | kg | - | - | - | - | - | - | - | - | 338 | 364 | 400 |
| | P | kg | 91 | 91 | 91 | 91 | 127 | 127 | 163 | 163 | 288 | 314 | 350 |
| | Q | kg | - | - | - | - | 147 | 147 | 183 | 183 | 338 | 364 | 400 |

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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