# NLC 0280-1250

## Air-water chiller

**Cooling capacity 53 ÷ 322 kW**

- **High efficiency also at partial loads**
- **Complete air flow versatility**
- **EC fan Plug-fan with high performance**


## DESCRIPTION

Chiller offering chilled/hot water, designed to mit air conditioning needs in residential / commercial complexes or industrial applications.
Indoor units with Scroll compressors, centrifugal fans and plate heat exchangers.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

## VERSIONS

° Standard
**A** High efficiency
**E** Silenced high efficiency

## FEATURES

### Operating field

Operation at full load up to 46°C external air temperature. Unit can produce chilled water up to -10°C.

### Units mono or dual-circuit

The range includes units with 2 compressors in single circuit and units with 4 compressors divided into two independent circuits.

### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

### EC fan plug-fan

The units are equipped with plug-fans and inverter motors coupled directly with the fan, with the electronic condensation control as standard, which adjusts the air flow according to the actual system requirements, with benefits in terms of consumption and noise reduction.
In addition, compared to conventional centrifugal fans, they do not feature belt and pulley transmission, resulting in easy flow adjustment, compactness, versatility, easy maintenance and no vibrations.

### 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 save money and to facilitate installation.

### Hot water production

In the configuration with desuperheater or total recovery, it is also possible to produce free-hot water.

## CONTROL $PCO_5$

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.

## ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.
**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.
**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.
**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
**FL:** Flow switch.
**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.
**PGD1:** Allows you to control the unit at a distance.
**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating

system during the photovoltaic production phase and release it at times when heating demand is highest.
**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

*The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

**AVX:** Spring anti-vibration supports.
**VT:** Anti-vibration supports.
**FLG:** Flange for ducts.

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.
**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
**KRQ:** Electric heater for the control and electric power board.
**KRA:** Anti-freeze electric heater for the buffer tank.
**C-TOUCH:** 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.

## COMPATIBILITY WITH VMF SYSTEM

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

## ACCESSORIES COMPATIBILITY

| Model | Ver | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AER485P1 | °,A,E | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| AERBACP | °,A,E | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| AERLINK | °,A,E | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| AERNET | °,A,E | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| FL | °,A,E | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| MULTICHILLER-EVO | °,A,E | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| PGD1 | °,A,E | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| SGD | °,A,E | • | • | • | • | | | | | | | | | | | |

| Model | Ver | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C-TOUCH | °,A,E | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |

### Remote panel

| Model | Ver | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PR4 | °,A,E | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

### FILTROW

| Ver | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 |
|---|---|---|---|---|---|---|---|---|
| °, A, E | FILTRO W DN50 (1) | FILTRO W DN50 (1) | FILTRO W DN50 (1) | FILTRO W DN50 (1) | FILTRO W DN65 (1) | FILTRO W DN65 (1) | FILTRO W DN65 (1) | FILTRO W DN65 (1) |

(1) Installation is mandatory, contrarily garantee becomes void.

| Ver | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---|---|---|---|---|---|---|---|
| °, A, E | FILTRO W DN65 (1) | FILTRO W DN65 (1) | FILTRO W DN80 (1) | FILTRO W DN80 (1) | FILTRO W DN80 (1) | FILTRO W DN80 (1) | FILTRO W DN80 (1) |

(1) Installation is mandatory, contrarily garantee becomes void.

### Flange for ducts

| Ver | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 |
|---|---|---|---|---|---|---|---|---|
| ° | FLG1 | FLG1 | FLG1 | FLG1 | FLG1 | FLG2 x 2 (1) | FLG2 x 2 (1) | FLG2 x 2 (1) |
| A, E | FLG1 | FLG1 | FLG1 | FLG1 | FLG2 x 2 (1) | FLG2 x 2 (1) | FLG2 x 2 (1) | FLG2 x 2 (1) |

(1) x... indicates the quantity to buy.

| Ver | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---|---|---|---|---|---|---|---|
| ° | FLG1 x 2 (1) | FLG1 + FLG2 x 2 (1) | FLG2 x 4 (1) | FLG1 + FLG2 x 2 (1) | FLG2 x 4 (1) | FLG2 x 4 (1) | FLG2 x 4 (1) |
| A, E | FLG1 x 2 (1) | FLG1 + FLG2 x 2 (1) | FLG2 x 4 (1) | FLG2 x 4 (1) | FLG2 x 4 (1) | FLG2 x 4 (1) | FLG2 x 4 (1) |

(1) x... indicates the quantity to buy.

### Antivibration

| Ver | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 |
|---|---|---|---|---|---|---|---|---|
| **Integrated hydronic kit: 00** | | | | | | | | |
| °, A, E | VT17 | VT17 | VT17 | VT17 | - | - | - | - |
| **Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08** | | | | | | | | |
| °, A, E | VT11 | VT11 | VT11 | VT11 | - | - | - | - |
| **Integrated hydronic kit: P1, P2, P3, P4, P5, P6, P7, P8** | | | | | | | | |
| °, A, E | VT13 | VT13 | VT13 | VT13 | - | - | - | - |

The accessory cannot be fitted on the configurations indicated with -

### Antivibration

| Ver | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 |
|---|---|---|---|---|---|---|---|---|
| **Integrated hydronic kit: 00** | | | | | | | | |
| ° | - | - | - | - | AVX437 | AVX421 | AVX421 | AVX421 |
| A, E | - | - | - | - | AVX421 | AVX421 | AVX421 | AVX421 |
| **Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08** | | | | | | | | |
| ° | - | - | - | - | AVX439 | AVX423 | AVX423 | AVX423 |
| A, E | - | - | - | - | AVX423 | AVX423 | AVX423 | AVX423 |
| **Integrated hydronic kit: P1, P3, P5, P7** | | | | | | | | |
| ° | - | - | - | - | AVX438 | AVX421 | AVX421 | AVX421 |
| A, E | - | - | - | - | AVX421 | AVX421 | AVX421 | AVX421 |

| Ver | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 |
|---|---|---|---|---|---|---|---|---|
| **Integrated hydronic kit: P2, P4, P6, P8** | | | | | | | | |
| ° | - | - | - | - | AVX438 | AVX422 | AVX422 | AVX422 |
| A, E | - | - | - | - | AVX422 | AVX422 | AVX422 | AVX422 |

The accessory cannot be fitted on the configurations indicated with -

| Ver | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---|---|---|---|---|---|---|---|
| **Integrated hydronic kit: 00** | | | | | | | |
| ° | AVX424 | AVX440 | AVX440 | AVX444 | AVX431 | AVX431 | AVX431 |
| A, E | AVX424 | AVX428 | AVX431 | AVX431 | AVX431 | AVX431 | AVX431 |
| **Integrated hydronic kit: 01, 03, 05, 07** | | | | | | | |
| ° | AVX427 | AVX441 | AVX441 | AVX446 | AVX435 | AVX434 | AVX434 |
| A, E | AVX427 | AVX430 | AVX434 | AVX434 | AVX434 | AVX434 | AVX434 |
| **Integrated hydronic kit: 02, 04, 06, 08** | | | | | | | |
| ° | AVX427 | AVX441 | AVX441 | AVX446 | AVX435 | AVX436 | AVX436 |
| A, E | AVX427 | AVX430 | AVX435 | AVX435 | AVX435 | AVX436 | AVX436 |
| **Integrated hydronic kit: P1, P3, P5, P7** | | | | | | | |
| ° | AVX425 | AVX425 | AVX442 | AVX445 | AVX432 | AVX432 | AVX432 |
| A, E | AVX425 | AVX429 | AVX432 | AVX432 | AVX432 | AVX432 | AVX432 |
| **Integrated hydronic kit: P2, P4, P6, P8** | | | | | | | |
| ° | AVX426 | AVX426 | AVX443 | AVX445 | AVX433 | AVX433 | AVX433 |
| A, E | AVX426 | AVX429 | AVX433 | AVX433 | AVX433 | AVX433 | AVX433 |

### DRE: Device for peak current reduction

| Ver | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 |
|---|---|---|---|---|---|---|---|---|
| °, A, E | DRE275 (1) | DRE275 (1) | DRE300 (1) | DRE350 (1) | DRE552 (1) | DRE602 (1) | DRE652 (1) | DRE675 (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

| Ver | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---|---|---|---|---|---|---|---|
| °, A, E | DRE350 x 2 | DRE552 x 2 | DRE552 x 2 | DRE602 x 2 | DRE652 x 2 | DRE675 x 2 | DRE1250 (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

### Power factor correction

| Ver | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 |
|---|---|---|---|---|---|---|---|---|
| °, A, E | RIFNLC1 | RIFNLC1 | RIFNLC2 | RIFNLC3 | RIFNLC1 | RIFNLC1 | RIFNLC1 | RIFNLC4 |

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

| Ver | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---|---|---|---|---|---|---|---|
| °, A, E | RIFNLC3 x 2 (1) | RIFNLC3 + RIFNLC2 (1) | RIFNLC1 x 2 (1) | RIFNLC1 x 2 (1) | RIFNLC1 x 2 (1) | RIFNLC4 x 2 (1) | RIFNLC3 x 2 (1) |

(1) x... indicates the quantity to buy.
A grey background indicates the accessory must be assembled in the factory

### Anti-condensate electric board resistance

| Ver | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 |
|---|---|---|---|---|---|---|---|---|
| °, A, E | KRQ | KRQ | KRQ | KRQ | KRQ | KRQ | KRQ | KRQ |

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

| Ver | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---|---|---|---|---|---|---|---|
| °, A, E | KRQ | KRQ | KRQ | KRQ | KRQ | KRQ | KRQ |

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

### Anti-freeze electric heater for the storage tank

| Ver | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 |
|---|---|---|---|---|---|---|---|---|
| **Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08** | | | | | | | | |
| °, A, E | KRA1 | KRA1 | KRA1 | KRA1 | KRA2 | KRA2 | KRA2 | KRA2 |
| **Integrated hydronic kit: P1, P2, P3, P4, P5, P6, P7, P8** | | | | | | | | |
| A, E | KRA1 | KRA1 | KRA1 | KRA1 | KRA2 | KRA2 | KRA2 | KRA2 |

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

| Ver | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---|---|---|---|---|---|---|---|
| **Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08** | | | | | | | |
| °, A, E | KRA2 | KRA2 | KRA2 | KRA2 | KRA2 | KRA2 | KRA2 |
| **Integrated hydronic kit: P1, P2, P3, P4, P5, P6, P7, P8** | | | | | | | |
| A, E | KRA2 | KRA2 | KRA2 | KRA2 | KRA2 | KRA2 | KRA2 |

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

## CONFIGURATOR

| Field | Description |
|---|---|
| **1,2,3** | **NLC** |
| **4,5,6,7** | **Size**<br>0280, 0300, 0330, 0350, 0550, 0600, 0650, 0675, 0700, 0750, 0800, 0900, 1000, 1100, 1250 |
| **8** | **Operating field** |
| X | Electronic thermostatic expansion valve (1) |
| Y | Low temperature mechanic thermostatic valve (2) |
| Z | Low temperature electronic thermostatic valve (2) |
| ° | Standard mechanic thermostatic valve (1) |
| **9** | **Model** |
| C | Motocondensing unit |
| ° | Cooling only |
| **10** | **Heat recovery** |
| D | With desuperheater (3) |
| T | With total recovery (4) |
| ° | Without heat recovery |
| **11** | **Version** |
| ° | Standard |
| A | High efficiency |
| E | Silenced high efficiency |
| **12** | **Coils** |
| R | Copper pipes-copper fins |
| S | Copper pipes-Tinned copper fins |
| V | Copper pieps-Coated aluminium fins |
| ° | Copper-aluminium |
| **13** | **Fans** |
| J | Inverter |
| **14** | **Power supply** |
| ° | 400V ~ 3 50Hz with magnet circuit breakers |
| **15,16** | **Integrated hydronic kit** |
| 00 | Without hydronic kit |
| | **Kit with storage tank and pump/s** |
| 01 | Storage tank with low head pump |
| 02 | Storage tank with low head pump + stand-by pump |
| 03 | Storage tank with high head pump |
| 04 | Storage tank with high head pump + stand-by pump |
| | **Kit with storage tank and inverter pump/s** |
| 05 | Storage tank with low-head inverter pump |
| 06 | Storage tank with low head inverter pump + stand-by pump |
| 07 | Storage tank with high head inverter pump |
| 08 | Storage tank with high head inverter pump + stand-by pump |
| | **Kit with pump/s** |
| P1 | Single pump low head |
| P2 | Pump low head + stand-by pump |
| P3 | Single pump high head |
| P4 | Pump high head + stand-by pump |
| | **Kit with pump/s, with inverter speed** |
| P5 | Single low head pump + fixed speed inverter (5) |
| P6 | Single low head pump with fixed speed inverter + stand-by pump (5) |
| P7 | Single high head pump + fixed speed inverter (5) |
| P8 | Single high head pump with fixed speed inverter + stand-by pump (5) |

(1) Water produced from 4 °C ÷ 18 °C
(2) Water produced from 4 °C ÷ -10 °C
(3) The temperature of the water in the heat exchanger inlet must never drop below 35°C.
(4) Options not available for standard unit "°", condensing unit and with alls hydronic kit.
(5) The speed of the inverter pump must be set upon commissioning, according to the useful static pressure required; once it has been set, the pump will work at a constant flow rate.

## PERFORMANCE SPECIFICATIONS

**NLC - °**

| Size | | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Fans: J** | | | | | | | | | | | | | | | | |
| **Cooling performance 12 °C / 7 °C (1)** | | | | | | | | | | | | | | | | |
| Cooling capacity | kW | 52,1 | 57,1 | 62,8 | 75,4 | 94,2 | 112,0 | 123,0 | 137,4 | 151,4 | 170,2 | 189,7 | 220,2 | 242,6 | 277,4 | 306,7 |
| Input power | kW | 20,4 | 23,4 | 24,3 | 28,9 | 39,3 | 44,3 | 50,1 | 53,7 | 58,6 | 66,6 | 79,0 | 86,4 | 99,8 | 107,6 | 121,3 |
| Cooling total input current | A | 38,0 | 42,0 | 46,0 | 57,0 | 68,0 | 77,0 | 85,0 | 92,0 | 113,0 | 121,0 | 136,0 | 148,0 | 169,0 | 181,0 | 208,0 |
| EER | W/W | 2,56 | 2,44 | 2,59 | 2,61 | 2,40 | 2,53 | 2,45 | 2,56 | 2,58 | 2,56 | 2,40 | 2,55 | 2,43 | 2,58 | 2,53 |
| Water flow rate system side | l/h | 8969 | 9828 | 10807 | 12972 | 16236 | 19277 | 21167 | 23676 | 26081 | 29294 | 32644 | 37884 | 41733 | 47712 | 52763 |
| Pressure drop system side | kPa | 19 | 22 | 28 | 27 | 43 | 27 | 31 | 43 | 37 | 30 | 38 | 35 | 35 | 41 | 48 |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

**NLC - A**

| Size | | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Fans: J** | | | | | | | | | | | | | | | | |
| **Cooling performance 12 °C / 7 °C (1)** | | | | | | | | | | | | | | | | |
| Cooling capacity | kW | 54,0 | 59,4 | 66,9 | 78,6 | 106,3 | 119,5 | 129,2 | 146,3 | 157,4 | 177,9 | 209,7 | 233,2 | 257,6 | 290,6 | 319,2 |
| Input power | kW | 19,5 | 21,5 | 23,4 | 27,7 | 37,7 | 42,9 | 45,0 | 52,4 | 55,3 | 60,3 | 75,4 | 84,8 | 89,6 | 105,7 | 115,9 |
| Cooling total input current | A | 36,0 | 40,0 | 43,0 | 53,0 | 63,0 | 71,0 | 73,0 | 87,0 | 107,0 | 113,0 | 126,0 | 139,0 | 146,0 | 173,0 | 198,0 |
| EER | W/W | 2,77 | 2,76 | 2,85 | 2,84 | 2,82 | 2,78 | 2,87 | 2,79 | 2,85 | 2,95 | 2,78 | 2,75 | 2,88 | 2,75 | 2,75 |
| Water flow rate system side | l/h | 9295 | 10223 | 11511 | 13539 | 18298 | 20566 | 22250 | 25188 | 27095 | 30617 | 36080 | 40118 | 44310 | 49980 | 54911 |
| Pressure drop system side | kPa | 20 | 24 | 22 | 30 | 25 | 30 | 36 | 36 | 25 | 25 | 33 | 33 | 35 | 37 | 43 |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

**NLC - E**

| Size | | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Fans: J** | | | | | | | | | | | | | | | | |
| **Cooling performance 12 °C / 7 °C (1)** | | | | | | | | | | | | | | | | |
| Cooling capacity | kW | 52,2 | 58,0 | 64,2 | 73,4 | 102,9 | 115,6 | 124,5 | 142,6 | 151,1 | 171,3 | 201,2 | 224,8 | 248,0 | 282,8 | 310,6 |
| Input power | kW | 19,3 | 21,5 | 23,7 | 27,4 | 37,6 | 42,7 | 45,9 | 52,5 | 55,4 | 60,1 | 74,9 | 85,2 | 90,6 | 105,8 | 116,0 |
| Cooling total input current | A | 36,0 | 39,0 | 43,0 | 53,0 | 62,0 | 69,0 | 73,0 | 85,0 | 106,0 | 112,0 | 123,0 | 138,0 | 146,0 | 170,0 | 197,0 |
| EER | W/W | 2,70 | 2,70 | 2,71 | 2,67 | 2,74 | 2,71 | 2,71 | 2,72 | 2,73 | 2,85 | 2,69 | 2,64 | 2,74 | 2,67 | 2,68 |
| Water flow rate system side | l/h | 8986 | 9982 | 11047 | 12628 | 17714 | 19896 | 21442 | 24552 | 25995 | 29483 | 34637 | 38675 | 42661 | 48640 | 53433 |
| Pressure drop system side | kPa | 19 | 23 | 20 | 26 | 23 | 29 | 34 | 34 | 23 | 24 | 31 | 30 | 33 | 35 | 41 |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

## ENERGY INDICES (REG. 2016/2281 EU)

| Size | | | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Fans: J** | | | | | | | | | | | | | | | | | |
| **SEER - 12/7 (EN14825: 2018) (1)** | | | | | | | | | | | | | | | | | |
| SEER | ° | W/W | 5,33 | 5,02 | 4,92 | 4,97 | 4,25 | 4,87 | 4,57 | 4,73 | 4,28 | 4,15 | 4,10 | 4,12 | 4,10 | 4,15 | 4,10 |
| | A | W/W | 5,79 | 5,77 | 5,33 | 5,34 | 5,24 | 5,33 | 5,15 | 5,03 | 4,75 | 4,93 | 4,55 | 4,46 | 4,63 | 4,42 | 4,35 |
| | E | W/W | 4,83 | 4,98 | 4,74 | 4,80 | 4,58 | 4,70 | 4,53 | 4,55 | 4,48 | 4,63 | 4,19 | 4,14 | 4,31 | 4,19 | 4,12 |
| Seasonal efficiency | ° | % | 210,30 | 197,80 | 193,90 | 195,80 | 167,10 | 191,60 | 179,60 | 186,00 | 168,20 | 162,80 | 161,00 | 161,90 | 161,10 | 163,10 | 161,00 |
| | A | % | 228,60 | 227,60 | 210,20 | 210,40 | 206,70 | 210,10 | 202,90 | 198,30 | 186,90 | 194,00 | 178,80 | 175,50 | 182,30 | 173,90 | 171,10 |
| | E | % | 190,30 | 196,00 | 186,70 | 189,00 | 180,10 | 185,00 | 178,30 | 179,10 | 176,20 | 182,10 | 164,60 | 162,70 | 169,20 | 164,40 | 161,90 |
| **SEER - 23/18 (EN14825: 2018) (2)** | | | | | | | | | | | | | | | | | |
| SEER | ° | W/W | 6,25 | 5,89 | 5,79 | 5,84 | 5,02 | 5,72 | 5,37 | 5,58 | 5,08 | 4,91 | 4,86 | 4,90 | 4,86 | 4,93 | 4,87 |
| | A | W/W | 6,84 | 6,82 | 6,27 | 6,27 | 6,17 | 6,27 | 6,07 | 5,93 | 5,62 | 5,84 | 5,39 | 5,29 | 5,49 | 5,25 | 5,16 |
| | E | W/W | 5,68 | 5,85 | 5,58 | 5,64 | 5,39 | 5,54 | 5,35 | 5,37 | 5,29 | 5,46 | 4,96 | 4,90 | 5,10 | 4,95 | 4,88 |
| Seasonal efficiency | ° | % | 246,80 | 232,50 | 228,50 | 230,50 | 197,70 | 225,80 | 211,90 | 220,10 | 200,00 | 193,40 | 191,40 | 192,80 | 191,50 | 194,10 | 191,60 |
| | A | % | 270,60 | 269,70 | 247,60 | 247,70 | 243,60 | 247,80 | 239,80 | 234,30 | 221,80 | 230,40 | 212,40 | 208,50 | 216,60 | 206,90 | 203,50 |
| | E | % | 224,20 | 230,80 | 220,30 | 222,70 | 212,70 | 218,40 | 211,00 | 211,80 | 208,60 | 215,50 | 195,30 | 193,00 | 200,90 | 195,00 | 192,00 |
| **SEPR - (EN 14825: 2018) (2)** | | | | | | | | | | | | | | | | | |
| SEPR | ° | W/W | 6,54 | 6,22 | 6,12 | 6,02 | 5,18 | 5,73 | 5,32 | 5,70 | 5,45 | 5,08 | 5,04 | 5,25 | 5,04 | 5,07 | 5,03 |
| | A | W/W | 6,87 | 6,88 | 6,44 | 6,47 | 6,21 | 6,35 | 5,98 | 5,90 | 5,94 | 6,32 | 5,65 | 5,40 | 5,72 | 5,41 | 5,39 |
| | E | W/W | 5,91 | 5,92 | 5,65 | 5,55 | 5,14 | 5,36 | 5,03 | 5,15 | 5,12 | 5,48 | 5,09 | 5,01 | 5,09 | 5,05 | 5,03 |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

| Size | | | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Electric data** | | | | | | | | | | | | | | | | | |
| Maximum current (FLA) | ° | A | 52,0 | 56,0 | 62,0 | 73,0 | 103,0 | 111,0 | 119,0 | 132,0 | 146,0 | 169,0 | 206,0 | 222,0 | 238,0 | 263,0 | 289,0 |
| | A,E | A | 52,0 | 56,0 | 62,0 | 73,0 | 92,0 | 111,0 | 119,0 | 132,0 | 146,0 | 158,0 | 183,0 | 210,0 | 238,0 | 263,0 | 289,0 |
| Peak current (LRA) | ° | A | 128,0 | 130,0 | 133,0 | 216,0 | 261,0 | 273,0 | 281,0 | 358,0 | 290,0 | 346,0 | 353,0 | 372,0 | 400,0 | 489,0 | 515,0 |
| | A,E | A | 128,0 | 130,0 | 133,0 | 216,0 | 273,0 | 273,0 | 281,0 | 358,0 | 290,0 | 357,0 | 376,0 | 384,0 | 400,0 | 489,0 | 515,0 |

## GENERAL TECHNICAL DATA

| Size | | | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Fans: J** | | | | | | | | | | | | | | | | | |
| **Compressor** | | | | | | | | | | | | | | | | | |
| Type | °,A,E | type | Scroll | | | | | | | | | | | | | | |
| Compressor regulation | °,A,E | Type | On/Off | | | | | | | | | | | | | | |
| Number | °,A,E | no. | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Circuits | °,A,E | no. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Refrigerant | °,A,E | type | R410A | | | | | | | | | | | | | | |
| Refrigerant load circuit 1 (1) | ° | kg | 7,0 | 7,0 | 8,5 | 9,0 | 13,7 | 15,0 | 18,0 | 19,0 | 9,5 | 8,3 | 13,8 | 13,5 | 15,0 | 19,1 | 19,1 |
| | A | kg | 8,7 | 8,5 | 9,5 | 10,0 | 18,0 | 18,7 | 22,0 | 22,0 | 10,7 | 9,5 | 18,7 | 19,5 | 22,0 | 22,0 | 22,0 |
| | E | kg | 8,7 | 8,5 | 9,5 | 10,0 | 18,0 | 18,7 | 21,0 | 21,5 | 10,7 | 9,5 | 18,7 | 19,0 | 21,1 | 22,0 | 22,0 |
| Refrigerant load circuit 2 (1) | ° | kg | - | - | - | - | - | - | - | - | 9,5 | 12,3 | 13,8 | 13,5 | 15,0 | 19,1 | 19,1 |
| | A | kg | - | - | - | - | - | - | - | - | 10,7 | 17,0 | 18,7 | 19,5 | 22,0 | 22,0 | 22,0 |
| | E | kg | - | - | - | - | - | - | - | - | 10,7 | 17,0 | 18,7 | 19,0 | 20,6 | 22,0 | 22,0 |
| **System side heat exchanger** | | | | | | | | | | | | | | | | | |
| Type | °,A,E | type | Brazed plate | | | | | | | | | | | | | | |
| Number | °,A,E | no. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

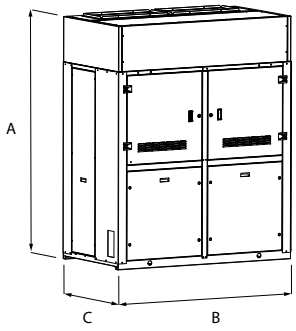
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

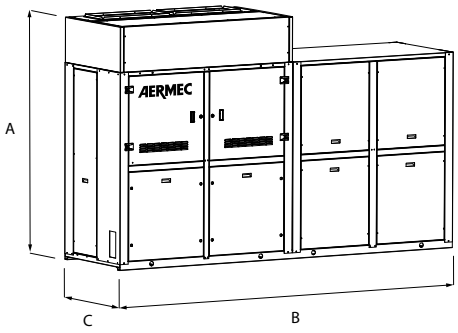
| Size | | | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Integrated hydronic kit: 00** | | | | | | | | | | | | | | | | | |
| **System side hydraulic connections** | | | | | | | | | | | | | | | | | |
| Connections (in/out) | °,A,E | Type | Grooved joints | | | | | | | | | | | | | | |
| Sizes (in/out) | ° | Ø | 2″ | 2″ | 2″ | 2″ | 2″ | 2″1/2 | 2″1/2 | 2″1/2 | 2″1/2 | 2″1/2 | 3″ | 3″ | 3″ | 3″ | 3″ |
| | A,E | Ø | 2″ | 2″ | 2″ | 2″ | 2″1/2 | 2″1/2 | 2″1/2 | 2″1/2 | 2″1/2 | 2″1/2 | 3″ | 3″ | 3″ | 3″ | 3″ |

| Size | | | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, P1, P2, P3, P4, P5, P6, P7, P8** | | | | | | | | | | | | | | | | | |
| **System side hydraulic connections** | | | | | | | | | | | | | | | | | |
| Connections (in/out) | °,A,E | Type | Grooved joints | | | | | | | | | | | | | | |
| Sizes (in/out) | °,A,E | Ø | 2″ | 2″ | 2″ | 2″ | 2″1/2 | 2″1/2 | 2″1/2 | 2″1/2 | 2″1/2 | 2″1/2 | 3″ | 3″ | 3″ | 3″ | 3″ |

| Size | | | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Fans: J** | | | | | | | | | | | | | | | | | |
| **Fan** | | | | | | | | | | | | | | | | | |
| Type | °,A,E | type | Plug-fun | | | | | | | | | | | | | | |
| Fan motor | °,A,E | type | EC Inverter motors | | | | | | | | | | | | | | |
| Number | ° | no. | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 8 | 8 | 8 |
| | A,E | no. | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 6 | 8 | 8 | 8 | 8 | 8 |
| Air flow rate | ° | $m^3/h$ | 21600 | 24000 | 21150 | 23600 | 23200 | 34050 | 34050 | 38200 | 47150 | 46750 | 46350 | 62150 | 68100 | 66650 | 71750 |
| | A | $m^3/h$ | 21150 | 23600 | 19400 | 22050 | 27700 | 33350 | 27150 | 32750 | 44050 | 57900 | 55350 | 55350 | 54300 | 65450 | 65450 |
| | E | $m^3/h$ | 15000 | 18400 | 14650 | 16450 | 14900 | 22200 | 14600 | 21750 | 32900 | 41900 | 29850 | 29850 | 29200 | 43500 | 43500 |
| **Machine exhaust** | | | | | | | | | | | | | | | | | |
| Sound power level | ° | dB(A) | 83,3 | 85,6 | 82,9 | 85,4 | 87,5 | 83,9 | 83,9 | 86,1 | 88,4 | 89,6 | 90,5 | 86,9 | 86,9 | 89,1 | 89,1 |
| | A | dB(A) | 83,6 | 86,1 | 81,9 | 84,5 | 82,9 | 85,2 | 82,9 | 85,1 | 87,5 | 85,8 | 85,9 | 88,2 | 85,9 | 88,1 | 88,1 |
| | E | dB(A) | 76,7 | 80,1 | 76,5 | 78,3 | 75,2 | 78,5 | 75,2 | 78,4 | 81,3 | 80,0 | 78,2 | 81,5 | 78,2 | 81,4 | 81,4 |
| **Intake plus machine body** | | | | | | | | | | | | | | | | | |
| Sound power level | ° | dB(A) | 78,4 | 80,1 | 79,2 | 81,0 | 83,8 | 86,4 | 84,8 | 85,6 | 83,9 | 85,1 | 86,7 | 87,7 | 87,2 | 89,3 | 89,3 |
| | A | dB(A) | 78,7 | 80,1 | 80,0 | 81,2 | 86,1 | 87,4 | 86,1 | 87,1 | 84,0 | 86,5 | 89,1 | 92,5 | 89,1 | 90,1 | 90,4 |
| | E | dB(A) | 76,8 | 76,7 | 78,6 | 79,2 | 84,2 | 85,1 | 84,1 | 84,7 | 81,0 | 82,4 | 86,2 | 89,7 | 86,2 | 86,6 | 86,8 |

## DIMENSIONS




| Size | | | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Integrated hydronic kit: 00** | | | | | | | | | | | | | | | | | |
| **Dimensions and weights** | | | | | | | | | | | | | | | | | |
| A | °,A,E | mm | 2154 | 2154 | 2154 | 2154 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 |
| B | ° | mm | 1750 | 1750 | 1750 | 1750 | 1750 | 3150 | 3150 | 3150 | 3500 | 3500 | 3500 | 4900 | 6300 | 6300 | 6300 |
| | A,E | mm | 1750 | 1750 | 1750 | 1750 | 3150 | 3150 | 3150 | 3150 | 3500 | 4900 | 6300 | 6300 | 6300 | 6300 | 6300 |
| C | °,A,E | mm | 950 | 950 | 950 | 950 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
| Empty weight | ° | kg | 759 | 759 | 787 | 798 | 994 | 1409 | 1415 | 1450 | 1510 | 1682 | 1858 | 2294 | 2692 | 2775 | 2789 |
| | A,E | kg | 775 | 775 | 809 | 813 | 1432 | 1436 | 1470 | 1485 | 1553 | 2156 | 2728 | 2744 | 2818 | 2844 | 2858 |

| Size | | | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Integrated hydronic kit: 01, 03, 05, 07** | | | | | | | | | | | | | | | | | |
| **Dimensions and weights** | | | | | | | | | | | | | | | | | |
| A | °,A,E | mm | 2154 | 2154 | 2154 | 2154 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 |
| B | ° | mm | 3400 | 3400 | 3400 | 3400 | 3500 | 4150 | 4150 | 4150 | 5250 | 4900 | 5250 | 5900 | 7300 | 7300 | 7300 |
| | A,E | mm | 3400 | 3400 | 3400 | 3400 | 4150 | 4150 | 4150 | 4150 | 5250 | 5900 | 7300 | 7300 | 7300 | 7300 | 7300 |
| C | °,A,E | mm | 950 | 950 | 950 | 950 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
| Empty weight | ° | kg | 973 | 973 | 1001 | 1022 | 1479 | 1691 | 1707 | 1741 | 1889 | 2061 | 2259 | 2599 | 3018 | 3101 | 3115 |
| | A,E | kg | 989 | 989 | 1023 | 1038 | 1715 | 1719 | 1761 | 1777 | 1931 | 2438 | 3035 | 3050 | 3144 | 3170 | 3184 |

| Size | | | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Integrated hydronic kit: 02, 04, 06, 08** | | | | | | | | | | | | | | | | | |
| **Dimensions and weights** | | | | | | | | | | | | | | | | | |
| A | °,A,E | mm | 2154 | 2154 | 2154 | 2154 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 |
| B | ° | mm | 3400 | 3400 | 3400 | 3400 | 3500 | 4150 | 4150 | 4150 | 5250 | 4900 | 5250 | 5900 | 7300 | 7300 | 7300 |
| | A,E | mm | 3400 | 3400 | 3400 | 3400 | 4150 | 4150 | 4150 | 4150 | 5250 | 5900 | 7300 | 7300 | 7300 | 7300 | 7300 |
| C | °,A,E | mm | 950 | 950 | 950 | 950 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
| Empty weight | ° | kg | 1016 | 1016 | 1044 | 1076 | 1533 | 1745 | 1770 | 1804 | 1942 | 2114 | 2334 | 2674 | 3114 | 3197 | 3211 |
| | A,E | kg | 1032 | 1032 | 1066 | 1091 | 1768 | 1772 | 1824 | 1840 | 1985 | 2492 | 3110 | 3126 | 3240 | 3266 | 3280 |

| Size | | | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Integrated hydronic kit: P1, P3, P5, P7** | | | | | | | | | | | | | | | | | |
| **Dimensions and weights** | | | | | | | | | | | | | | | | | |
| A | °,A,E | mm | 2154 | 2154 | 2154 | 2154 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 |
| B | ° | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 3150 | 3150 | 3150 | 4250 | 4250 | 7300 | 4900 | 6300 | 6300 | 6300 |
| | A,E | mm | 2500 | 2500 | 2500 | 2500 | 3150 | 3150 | 3150 | 3150 | 4250 | 4900 | 6300 | 6300 | 6300 | 6300 | 6300 |
| C | °,A,E | mm | 950 | 950 | 950 | 950 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
| Empty weight | ° | kg | 888 | 888 | 916 | 937 | 1146 | 1468 | 1483 | 1518 | 1664 | 1836 | 2041 | 2375 | 2793 | 2876 | 2890 |
| | A,E | kg | 904 | 904 | 939 | 953 | 1491 | 1495 | 1538 | 1554 | 1707 | 2215 | 2809 | 2825 | 2919 | 2945 | 2959 |

| Size | | | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Integrated hydronic kit: P2, P4, P6, P8** | | | | | | | | | | | | | | | | | |
| **Dimensions and weights** | | | | | | | | | | | | | | | | | |
| A | °,A,E | mm | 2154 | 2154 | 2154 | 2154 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 |
| B | ° | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 3150 | 3150 | 3150 | 4250 | 4250 | 7300 | 4900 | 6300 | 6300 | 6300 |
| | A,E | mm | 2500 | 2500 | 2500 | 2500 | 3150 | 3150 | 3150 | 3150 | 4250 | 4900 | 6300 | 6300 | 6300 | 6300 | 6300 |
| C | °,A,E | mm | 950 | 950 | 950 | 950 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
| Empty weight | ° | kg | 931 | 960 | 991 | 1199 | 1522 | 1546 | 1581 | 1718 | 1890 | 2117 | 2451 | 2888 | 2972 | 3054 | 2986 |
| | A | kg | 948 | 948 | 982 | 1007 | 1545 | 1549 | 1601 | 1617 | 1760 | 2268 | 2885 | 2900 | 3014 | 3040 | 3054 |
| | E | kg | 948 | 948 | 982 | 1007 | 1545 | 1549 | 1601 | 1617 | 1760 | 2268 | 2885 | 2900 | 3014 | 3040 | 931 |



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