# NRK 0200-0700

## Reversible air/water heat pump

**Cooling capacity 35,5 ÷ 148 kW**
**Heating capacity 42,31 ÷ 175 kW**

- **Water produced up to +65 °C**
- **Heating operations with external temperatures down to -20 °C**
- **Optimized for operation in heating mode**




### 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.
It's optimised for use in heating mode, and can be combined not only with low-temperature emission systems such as floor heating or fan coils, but also conventional radiators.
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

**A** High efficiency
**E** Silenced high efficiency

### FEATURES

#### Operating field

Working at full load up to -20 °C outside air temperature in winter, and up to 48 °C in summer. Hot water production up to 65 °C.

#### 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.

#### Components

Water filter,flow switch, low and high pressure transducers as standard supply on all units.

#### Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

### CONTROL $PCO_5$

Microprocessor control, with keyboard and LCD display, for easy access on the unit with a menu available in several languages.
— Adjustment includes complete management of the alarms and their log.
— Possibility to control two units in a Master-Slave configuration
— 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.
**AERBAC-ONE:** Ethernet communication interface for Bacnet/IP and Modbus TCP/IP protocols, HTTPS protocol for web interface, encrypted communication protocols and access credential management in accordance with the latest standards. One accessory is provided for each unit control board.
**AERBACP:** Ethernet communication interface for Bacnet/IP and Modbus TCP/IP 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 remotely controls, manages and remotely monitors a chiller/heat pump using a PC, smartphone or table via a Cloud connection. AERNET acts as Master while each connected unit is configured as Slave up to a maximum of 6 control cards. The connection is made via cable and/or USB key. Wi-Fi connectivity is not available. It is also possible to save a log file with all the data from the connected units to your terminal with a simple click for possible post-analysis. With the purchase of the Router, the Customer benefits from a 24-month free period during which he can use the Aernet Service at no additional cost. At the end of this initial period, the Service may be renewed by subscribing to a 1, 2 or 3 year subscription. For further details on costs and renewal methods, please contact our office or consult the technical documentation available on our website. www.aermec.com.
**BMConverter:** The BMConverter accessory consists of the FPC-N54 network device which allows units that communicate via the Modbus RTU protocol on RS485, to be controlled by a third-party BMS system via the BACNet TCP-IP protocol.

**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 board designed to receive external signals from the electricity grid or energy suppliers, converting them into Modbus commands for our units. This system allows you to vary the operation of our generators to optimise consumption based on electricity prices, grid load or the availability of renewable sources. The key principle of the standard is demand response: shifting consumption from peak demand times to times when energy is cheaper and more environmentally sustainable.
**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.*

**GP:** Anti-intrusion grid.
**VT:** Anti-vibration supports.

## 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.
**T6:** Double safety valve with exchange cock, both on the high and low pressure branches.
**PRM1:** It is a manual pressure switch electrically wired in series with the existing automatic high pressure switch on the compressor discharge pipe.
**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.
**AERCALM:** The aim of the accessory installed in the electric box of the unit is to provide a clean contact for commanding - on the basis of the outside air temperature - a boiler to replace the heat pump. Aercalm must be requested at the time of ordering, as it is installed in the factory.

## COMPATIBILITY WITH VMF SYSTEM

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

## ACCESSORIES COMPATIBILITY

| Model | Ver | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AER485P1 | A | | | | | • | • | • | • | • | • |
| | E | • | • | • | • | • | • | • | • | • | • |
| AERBAC-ONE | A | | | | | • | • | • | • | • | • |
| | E | • | • | • | • | • | • | • | • | • | • |
| AERBACP | A | | | | | • | • | • | • | • | • |
| | E | • | • | • | • | • | • | • | • | • | • |
| AERLINK | A | | | | | • | • | • | • | • | • |
| | E | • | • | • | • | • | • | • | • | • | • |
| AERNET | A | | | | | • | • | • | • | • | • |
| | E | • | • | • | • | • | • | • | • | • | • |
| BMConverter | A | | | | | • | • | • | • | • | • |
| | E | • | • | • | • | • | • | • | • | • | • |
| MULTICHILLER-EVO | A | | | | | • | • | • | • | • | • |
| | E | • | • | • | • | • | • | • | • | • | • |
| PGD1 | A | | | | | • | • | • | • | • | • |
| | E | • | • | • | • | • | • | • | • | • | • |
| SGD | A | | | | | • | • | • | • | • | • |
| | E | • | • | • | • | • | • | • | • | • | • |

### Remote panel

| Model | Ver | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PR4 | A | | | | | • | • | • | • | • | • |
| | E | • | • | • | • | • | • | • | • | • | • |

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

### GP: anti-intrusion grid

| Ver | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|---|---|---|
| A | - | - | - | - | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) | GP2 x 3 (1) |
| E | GP3 | GP3 | GP4 | GP4 | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) | GP2 x 3 (1) |

(1) x _ indicates the quantity to buy

### VT: Antivibration

| Ver | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Integrated hydronic kit: 00, P1, P2, P3, P4** | | | | | | | | | | |
| A | - | - | - | - | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 |
| E | VT17 | VT17 | VT17 | VT17 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 |
| **Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08** | | | | | | | | | | |
| A | - | - | - | - | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 |
| E | VT13 | VT13 | VT13 | VT13 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 |

### DRE: Device for peak current reduction

| Ver | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|---|---|---|
| A | - | - | - | - | DRE351 (1) | DRE501 (1) | DRE551 (1) | DRE601 (1) | DRE651 (1) | DRE701 (1) |
| E | DRE201 (1) | DRE281 (1) | DRE301 (1) | DRE331 (1) | DRE351 (1) | DRE501 (1) | DRE551 (1) | DRE601 (1) | DRE651 (1) | DRE701 (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

### RIF: Power factor correction

| Ver | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|---|---|---|
| A | - | - | - | - | RIF65 | RIF58 | RIF59 | RIF60 | RIF61 | RIF61 |
| E | RIF55 | RIF56 | RIF54 | RIF57 | RIF65 | RIF58 | RIF59 | RIF60 | RIF61 | RIF61 |

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

**Double safety valves**

| Ver | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|---|---|---|
| A | - | - | - | - | T6NRK1 | T6NRK2 | T6NRK3 | T6NRK3 | T6NRK3 | T6NRK3 |
| E | T6NRK1 | T6NRK1 | T6NRK1 | T6NRK1 | T6NRK1 | T6NRK2 | T6NRK3 | T6NRK3 | T6NRK3 | T6NRK3 |

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

**PRM1: Manually reset pressure switch**

| Ver | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|---|---|---|
| A | - | - | - | - | PRM1 | PRM1 | PRM1 | PRM1 | PRM1 | PRM1 |
| E | PRM1 | PRM1 | PRM1 | PRM1 | PRM1 | PRM1 | PRM1 | PRM1 | PRM1 | PRM1 |

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

**7", touch screen keyboard**

| Model | Ver | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C-TOUCH | A | | | | | • | • | • | • | • | • |
| | E | • | • | • | • | • | • | • | • | • | • |

**Clean contact for controlling a boiler.**

| Model | Ver | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AERCALM | A | | | | | • | • | • | • | • | • |
| | E | • | • | • | • | • | • | • | • | • | • |

## CONFIGURATOR

| Field | Description |
|---|---|
| **1,2,3** | **NRK** |
| **4,5,6,7** | **Size**<br>0200, 0280, 0300, 0330, 0350, 0500, 0550, 0600, 0650, 0700 |
| **8** | **Operating field (1)** |
| ° | Standard mechanic thermostatic valve |
| **9** | **Model** |
| H | Heat pump |
| **10** | **Heat recovery** |
| D | With desuperheater (2) |
| ° | Without heat recovery |
| **11** | **Version** |
| A | High efficiency |
| E | Silenced high efficiency |
| **12** | **Coils** |
| R | Copper pipes-copper fins |
| V | Copper - coated aluminium |
| ° | Copper - aluminium |
| **13** | **Fans** |
| J | Inverter (3) |
| M | Increased (4) |
| ° | Standard (5) |
| **14** | **Power supply** |

| Field | Description |
|---|---|
| ° | 400V 3N ~ 50Hz |
| **15,16** | **Integrated hydronic kit** |
| 00 | Without hydronic kit |
| 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 |
| 05 | Storage tank with holes for heaters and single low head pump (6) |
| 06 | Storage tank with holes for heaters and pump low head + stand-by pump (6) |
| 07 | Storage tank with holes for heaters and single high head pump (6) |
| 08 | Storage tank with holes for heaters and pump high head + stand-by pump (6) |
| P1 | Single pump low head |
| P2 | Pump low head + stand-by pump |
| P3 | Single pump high head |
| P4 | Pump high head + stand-by pump |

(1) Water produced up to +4 °C
(2) The desuperheater must be isolated in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.
(3) Standard for size 0200÷0330, without useful static pressure. Option for size 0350÷0700 with useful static pressure.
(4) Option available only for size 0200÷0330.
(5) As standard in sizes fom 0350÷0700.
(6) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

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

**NRK - A / 12/7 °C - 40/45 °C**

| Size | | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|
| **Fans: °** | | | | | | | |
| **Cooling performance 12 °C / 7 °C (1)** | | | | | | | |
| Cooling capacity | kW | 75,4 | 88,8 | 101,6 | 117,4 | 133,4 | 148,1 |
| Input power | kW | 25,4 | 29,5 | 34,4 | 41,0 | 45,0 | 52,6 |
| Cooling total input current | A | 55,30 | 60,70 | 66,10 | 71,80 | 86,50 | 107,40 |
| EER | W/W | 2,97 | 3,01 | 2,95 | 2,86 | 2,97 | 2,82 |
| Water flow rate system side | l/h | 12.983 | 15.278 | 17.488 | 20.211 | 22.975 | 25.516 |
| Pressure drop system side | kPa | 23 | 26 | 32 | 28 | 34 | 42 |
| **Heating performance 40 °C / 45 °C (2)** | | | | | | | |
| Heating capacity | kW | 87,9 | 103,9 | 118,9 | 136,6 | 155,6 | 174,4 |
| Input power | kW | 25,5 | 30,2 | 34,7 | 39,9 | 45,6 | 51,7 |
| Heating total input current | A | 54,40 | 59,40 | 64,30 | 69,80 | 84,60 | 105,60 |
| COP | W/W | 3,45 | 3,44 | 3,42 | 3,42 | 3,41 | 3,37 |
| Water flow rate system side | l/h | 15.236 | 18.010 | 20.602 | 23.680 | 26.988 | 30.254 |
| Pressure drop system side | kPa | 32 | 36 | 44 | 37 | 45 | 57 |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

**NRK - E / 12/7 °C - 40/45 °C**

| Size | | 0200 | 0280 | 0300 | 0330 |
|---|---|---|---|---|---|
| **Fans: J** | | | | | |
| **Cooling performance 12 °C / 7 °C (1)** | | | | | |
| Cooling capacity | kW | 35,6 | 50,4 | 59,5 | 66,1 |
| Input power | kW | 11,7 | 17,4 | 19,5 | 22,3 |
| Cooling total input current | A | 27,70 | 37,90 | 42,20 | 48,60 |
| EER | W/W | 3,05 | 2,90 | 3,05 | 2,96 |
| Water flow rate system side | l/h | 6.131 | 8.670 | 10.235 | 11.379 |
| Pressure drop system side | kPa | 18 | 17 | 23 | 19 |
| **Heating performance 40 °C / 45 °C (2)** | | | | | |
| Heating capacity | kW | 42,2 | 59,7 | 69,4 | 78,2 |
| Input power | kW | 12,0 | 17,0 | 19,9 | 22,4 |
| COP | W/W | 3,50 | 3,50 | 3,49 | 3,49 |
| Heating total input current | A | 24,30 | 33,50 | 37,90 | 43,60 |
| Water flow rate system side | l/h | 7.318 | 10.355 | 12.032 | 13.569 |
| Pressure drop system side | kPa | 24 | 22 | 30 | 25 |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

| Size | | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|
| **Fans: °** | | | | | | | |
| **Cooling performance 12 °C / 7 °C (1)** | | | | | | | |
| Cooling capacity | kW | 74,4 | 87,4 | 99,8 | 114,5 | 130,8 | 145,3 |
| Input power | kW | 27,6 | 32,4 | 38,1 | 45,8 | 49,5 | 58,1 |
| Cooling total input current | A | 60,40 | 66,80 | 73,20 | 71,80 | 95,30 | 118,70 |
| EER | W/W | 2,69 | 2,70 | 2,62 | 2,50 | 2,64 | 2,50 |
| Water flow rate system side | l/h | 12.801 | 15.035 | 17.175 | 19.713 | 22.512 | 25.033 |
| Pressure drop system side | kPa | 22 | 25 | 30 | 27 | 32 | 41 |
| **Heating performance 40 °C / 45 °C (2)** | | | | | | | |
| Heating capacity | kW | 87,9 | 103,9 | 118,9 | 136,6 | 155,6 | 174,4 |
| Input power | kW | 25,5 | 30,2 | 34,7 | 39,9 | 45,6 | 51,7 |
| COP | W/W | 3,45 | 3,44 | 3,42 | 3,42 | 3,41 | 3,37 |
| Heating total input current | A | 54,40 | 59,40 | 64,30 | 69,80 | 84,60 | 105,60 |
| Water flow rate system side | l/h | 15.236 | 18.010 | 20.602 | 23.680 | 26.988 | 30.254 |
| Pressure drop system side | kPa | 32 | 36 | 44 | 37 | 45 | 57 |

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

**NRK - A / 23/18 °C - 30/35 °C**

| Size | | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|
| **Fans: °** | | | | | | | |
| **Cooling performance 23 °C / 18 °C (1)** | | | | | | | |
| Cooling capacity | kW | 93,2 | 108,2 | 122,7 | 143,0 | 165,0 | 181,0 |
| Input power | kW | 26,4 | 30,7 | 35,9 | 43,3 | 47,0 | 55,1 |
| Cooling total input current | A | 57,14 | 62,71 | 68,55 | 75,31 | 89,86 | 111,85 |
| EER | W/W | 3,54 | 3,53 | 3,42 | 3,30 | 3,51 | 3,28 |
| Water flow rate system side | l/h | 16.111 | 18.705 | 21.231 | 24.719 | 28.513 | 31.266 |
| Pressure drop system side | kPa | 35 | 39 | 47 | 42 | 52 | 63 |
| **Heating performance 30 °C / 35 °C (2)** | | | | | | | |
| Heating capacity | kW | 86,4 | 101,5 | 114,6 | 132,6 | 150,2 | 170,5 |
| Input power | kW | 20,6 | 24,5 | 27,8 | 31,7 | 37,0 | 41,9 |
| Heating total input current | A | 43,99 | 48,04 | 51,29 | 55,27 | 68,42 | 85,40 |
| COP | W/W | 4,19 | 4,15 | 4,13 | 4,19 | 4,06 | 4,06 |
| Water flow rate system side | l/h | 14.931 | 17.533 | 19.787 | 22.919 | 25.938 | 29.467 |
| Pressure drop system side | kPa | 31 | 34 | 41 | 35 | 42 | 54 |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

**NRK - E / 23/18 °C - 30/35 °C**

| Size | | 0200 | 0280 | 0300 | 0330 |
|---|---|---|---|---|---|
| **Fans: J** | | | | | |
| **Cooling performance 23 °C / 18 °C (1)** | | | | | |
| Cooling capacity | kW | 44,2 | 61,5 | 72,1 | 80,9 |
| Input power | kW | 12,2 | 18,2 | 20,4 | 23,5 |
| Cooling total input current | A | 28,70 | 39,60 | 44,00 | 51,00 |
| EER | W/W | 3,64 | 3,37 | 3,53 | 3,44 |
| Water flow rate system side | l/h | 7.643 | 10.631 | 12.470 | 13.977 |
| Pressure drop system side | kPa | 28 | 26 | 34 | 29 |
| **Heating performance 30 °C / 35 °C (2)** | | | | | |
| Heating capacity | kW | 41,4 | 57,2 | 67,2 | 75,7 |
| Input power | kW | 9,4 | 13,3 | 15,8 | 18,1 |
| Heating total input current | A | 18,90 | 26,10 | 30,00 | 35,20 |
| COP | W/W | 4,41 | 4,31 | 4,26 | 4,18 |
| Water flow rate system side | l/h | 7.156 | 9.895 | 11.618 | 13.083 |
| Pressure drop system side | kPa | 23 | 20 | 28 | 23 |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

| Size | | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|
| **Fans: °** | | | | | | | |
| **Cooling performance 23 °C / 18 °C (1)** | | | | | | | |
| Cooling capacity | kW | 91,9 | 106,5 | 120,6 | 139,5 | 161,7 | 177,5 |
| Input power | kW | 28,7 | 33,6 | 39,7 | 48,3 | 51,7 | 60,8 |
| Cooling total input current | A | 62,41 | 69,01 | 75,91 | 75,31 | 99,00 | 123,61 |
| EER | W/W | 3,20 | 3,16 | 3,04 | 2,89 | 3,13 | 2,92 |
| Water flow rate system side | l/h | 15.886 | 18.408 | 20.850 | 24.110 | 27.939 | 30.673 |
| Pressure drop system side | kPa | 34 | 37 | 44 | 40 | 49 | 62 |
| **Heating performance 30 °C / 35 °C (2)** | | | | | | | |
| Heating capacity | kW | 86,4 | 101,5 | 114,6 | 132,6 | 150,2 | 170,5 |
| Input power | kW | 20,6 | 24,5 | 27,8 | 31,7 | 37,0 | 41,9 |
| Heating total input current | A | 43,99 | 48,04 | 51,29 | 55,27 | 68,42 | 85,40 |
| COP | W/W | 4,19 | 4,15 | 4,13 | 4,19 | 4,06 | 4,06 |
| Water flow rate system side | l/h | 14.931 | 17.533 | 19.787 | 22.919 | 25.938 | 29.467 |
| Pressure drop system side | kPa | 31 | 34 | 41 | 35 | 42 | 54 |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

## ENERGY DATA

| Size | | | 0200 | 0280 | 0300 | 0330 |
|---|---|---|---|---|---|---|
| **Fans: J** | | | | | | |
| **SEER - 12/7 (EN14825: 2018)** | | | | | | |
| SEER | A | W/W | - | - | - | - |
| | E | W/W | 3,40 | 3,30 | 3,48 | 3,39 |
| Seasonal efficiency | A | % | - | - | - | - |
| | E | % | 133,00 | 128,80 | 136,10 | 132,50 |
| Water Regulation (1) | A | type | - | - | - | - |
| | E | type | FW/VO | FW/VO | FW/VO | FW/VO |

(1) VW/VO - variable water flow rate/variable outlet temperature; FW/VO - fixed water flow rate/variable outlet temperature; VW/FO - variable water flow rate/fixed outlet temperature; FW/FO - fixed water flow rate/fixed outlet temperature.

| Size | | | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|---|
| **Fans: °** | | | | | | | | |
| **SEER - 12/7 (EN14825: 2018)** | | | | | | | | |
| SEER | A | W/W | 3,45 | 3,51 | 3,45 | 3,42 | 3,44 | 3,33 |
| | E | W/W | 3,35 | 3,42 | 3,34 | 3,29 | 3,35 | 3,27 |
| Seasonal efficiency | A | % | 134,80 | 137,60 | 135,20 | 133,70 | 134,60 | 130,00 |
| | E | % | 130,90 | 133,70 | 130,60 | 128,70 | 130,90 | 127,90 |
| Water Regulation (1) | A,E | type | FW/VO | FW/VO | FW/VO | FW/VO | FW/VO | FW/VO |

(1) VW/VO - variable water flow rate/variable outlet temperature; FW/VO - fixed water flow rate/variable outlet temperature; VW/FO - variable water flow rate/fixed outlet temperature; FW/FO - fixed water flow rate/fixed outlet temperature.

| Size | | | 0200 | 0280 | 0300 | 0330 |
|---|---|---|---|---|---|---|
| **Fans: J** | | | | | | |
| **Performance in average ambient conditions (average) - 35 °C (1)** | | | | | | |
| Efficiency energy class | A | | - | - | - | - |
| | E | | A+ | A+ | A+ | - |
| Pdesignh | A | kW | - | - | - | - |
| | E | kW | 52,00 | 58,00 | 67,00 | 75,00 |
| SCOP | A | W/W | - | - | - | - |
| | E | W/W | 3,80 | 3,75 | 3,70 | 3,68 |

(1) Efficiencies for low temperature applications (35 °C)
(2) VW/VO - variable water flow rate/variable outlet temperature; FW/VO - fixed water flow rate/variable outlet temperature; VW/FO - variable water flow rate/fixed outlet temperature; FW/FO - fixed water flow rate/fixed outlet temperature.
(3) Efficiencies for average temperature applications (55 °C)

| Size | | | 0200 | 0280 | 0300 | 0330 |
|---|---|---|---|---|---|---|
| ηsh | A | % | - | - | - | - |
| | E | % | 149,00 | 147,00 | 145,00 | 144,00 |
| Water Regulation (2) | A | type | - | - | - | - |
| | E | type | FW/VO | FW/VO | FW/VO | FW/VO |
| **Performance in average ambient conditions (average) - 55 °C (3)** | | | | | | |
| Efficiency energy class | A | | - | - | - | - |
| | E | | A+ | A+ | A+ | - |
| Pdesignh | A | kW | - | - | - | - |
| | E | kW | 53,00 | 62,00 | 70,00 | 80,00 |
| SCOP | A | W/W | - | - | - | - |
| | E | W/W | 3,10 | 3,03 | 3,00 | 3,03 |
| ηsh | A | % | - | - | - | - |
| | E | % | 121,00 | 118,00 | 117,00 | 118,00 |
| Water Regulation (2) | A | type | - | - | - | - |
| | E | type | FW/VO | FW/VO | FW/VO | FW/VO |

(1) Efficiencies for low temperature applications (35 °C)
(2) VW/VO - variable water flow rate/variable outlet temperature; FW/VO - fixed water flow rate/variable outlet temperature; VW/FO - variable water flow rate/fixed outlet temperature; FW/FO - fixed water flow rate/fixed outlet temperature.
(3) Efficiencies for average temperature applications (55 °C)

| Size | | | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|---|
| **Fans: °** | | | | | | | | |
| **Performance in average ambient conditions (average) - 35 °C (1)** | | | | | | | | |
| Efficiency energy class | A,E | | - | - | - | - | - | - |
| Pdesignh | A,E | kW | 84,00 | 99,00 | 113,00 | 131,00 | 149,00 | 168,00 |
| SCOP | A,E | W/W | 3,43 | 3,40 | 3,70 | 3,70 | 3,38 | 3,33 |
| ηsh | A,E | % | 134,00 | 133,00 | 145,00 | 145,00 | 132,00 | 130,00 |
| Water Regulation (2) | A,E | type | FW/VO | FW/VO | FW/VO | FW/VO | FW/VO | FW/VO |
| **Performance in average ambient conditions (average) - 55 °C (3)** | | | | | | | | |
| Efficiency energy class | A,E | | - | - | - | - | - | - |
| Pdesignh | A,E | kW | 89,00 | 106,00 | 121,00 | 137,00 | 157,00 | 178,00 |
| SCOP | A,E | W/W | 2,88 | 2,90 | 3,03 | 3,03 | 2,93 | 2,90 |
| ηsh | A,E | % | 112,00 | 113,00 | 118,00 | 118,00 | 114,00 | 113,00 |
| Water Regulation (2) | A,E | type | FW/VO | FW/VO | FW/VO | FW/VO | FW/VO | FW/VO |

(1) Efficiencies for low temperature applications (35 °C)
(2) VW/VO - variable water flow rate/variable outlet temperature; FW/VO - fixed water flow rate/variable outlet temperature; VW/FO - variable water flow rate/fixed outlet temperature; FW/FO - fixed water flow rate/fixed outlet temperature.
(3) Efficiencies for average temperature applications (55 °C)

## ELECTRIC DATA

| Size | | | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Electric data** | | | | | | | | | | | | |
| Maximum current (FLA) | A | A | - | - | - | - | 75,0 | 85,0 | 94,0 | 114,0 | 144,0 | 147,0 |
| | E | A | 40,0 | 49,0 | 61,0 | 74,0 | 75,0 | 85,0 | 94,0 | 114,0 | 144,0 | 147,0 |
| Peak current (LRA) | A | A | - | - | - | - | 216,0 | 226,0 | 191,0 | 228,0 | 285,0 | 288,0 |
| | E | A | 124,0 | 146,0 | 175,0 | 215,0 | 216,0 | 226,0 | 191,0 | 228,0 | 285,0 | 288,0 |

## GENERAL TECHNICAL DATA

### Refrigerant circuit

| Size | | | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Fans: J** | | | | | | | | | | | | |
| **Compressor** | | | | | | | | | | | | |
| Type | A,E | type | Scroll | Scroll | Scroll | Scroll | Scroll | Scroll | Scroll | Scroll | Scroll | Scroll |
| Compressor regulation | A,E | type | On-Off | On-Off | On-Off | On-Off | On-Off | On-Off | On-Off | On-Off | On-Off | On-Off |
| Number | A,E | no. | 2 | 2 | 2 | 2 | 2 | 3 | 4 | 4 | 4 | 4 |
| Circuits | A,E | no. | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Refrigerant | A,E | type | R410A | R410A | R410A | R410A | R410A | R410A | R410A | R410A | R410A | R410A |
| Total refrigerant charge (1) | A,E | kg | 13,60 | 15,60 | 16,40 | 16,40 | 23,00 | 28,50 | 29,00 | 29,00 | 39,00 | 40,00 |
| Potential global heating (GWP) | A,E | | 2088 | 2088 | 2088 | 2088 | 2088 | 2088 | 2088 | 2088 | 2088 | 2088 |
| Equivalent $CO_2$ | A,E | $tCO_2eq$ | 28,40 | 32,57 | 34,24 | 34,24 | 48,02 | 59,51 | 60,55 | 60,55 | 81,43 | 83,52 |

(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.

### System side heat exchanger

| Size | | | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **System side heat exchanger** | | | | | | | | | | | | |
| Type | A,E | type | Brazed plate | | | | | | | | | |
| Number | A,E | no. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| **Hydraulic connections** | | | | | | | | | | | | |
| Connections (in/out) | A,E | Type | Grooved joints | | | | | | | | | |
| Sizes (in/out) | A,E | Ø | 2½" | | | | | | | | | |

## Fans

| Size | | | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Fans: J** | | | | | | | | | | | | |
| **Fan** | | | | | | | | | | | | |
| Type | A,E | type | axials | axials | axials | axials | - | - | - | - | - | - |
| Fan motor | A,E | type | Inverter | Inverter | Inverter | Inverter | - | - | - | - | - | - |
| Number | A,E | no. | 4 | 6 | 8 | 8 | - | - | - | - | - | - |
| Air flow rate | A,E | $m^3/h$ | 14000 | 20000 | 26000 | 26000 | - | - | - | - | - | - |

| Size | | | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Fans: M** | | | | | | | | | | | | |
| **Fan** | | | | | | | | | | | | |
| Type | A,E | type | axials | axials | axials | axials | - | - | - | - | - | - |
| Fan motor | A,E | type | On-Off | On-Off | On-Off | On-Off | - | - | - | - | - | - |
| Number | A,E | no. | 4 | 6 | 8 | 8 | - | - | - | - | - | - |
| Air flow rate | A,E | $m^3/h$ | 14000 | 20000 | 26000 | 26000 | - | - | - | - | - | - |

| Size | | | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Fans: °** | | | | | | | | | | | | |
| **Fan** | | | | | | | | | | | | |
| Type | A,E | type | - | - | - | - | axials | axials | axials | axials | axials | axials |
| Fan motor | A,E | type | - | - | - | - | On-Off | On-Off | On-Off | On-Off | On-Off | On-Off |
| Number | A,E | no. | - | - | - | - | 2 | 2 | 2 | 2 | 3 | 3 |
| Air flow rate | A | $m^3/h$ | - | - | - | - | 37000 | 36500 | 36500 | 36500 | 58000 | 58000 |
| | E | $m^3/h$ | - | - | - | - | 21100 | 21400 | 22400 | 22400 | 31900 | 31900 |

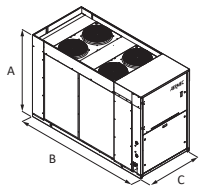
## Sound data

| Size | | | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sound data calculated in cooling mode (1)** | | | | | | | | | | | | |
| Sound power level | A | dB(A) | - | - | - | - | 82,0 | 82,0 | 82,0 | 83,0 | 85,0 | 85,0 |
| | E | dB(A) | 74,0 | 74,0 | 75,0 | 75,0 | 74,0 | 74,0 | 74,0 | 75,0 | 77,0 | 77,0 |

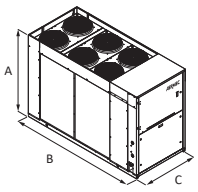
(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS

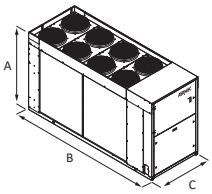
NRK 0200



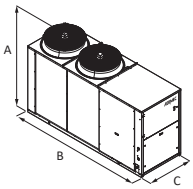

NRK 0280



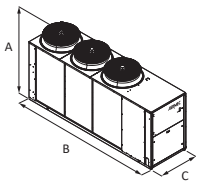

NRK 0300-0330




NRK 0350-0500-0550-0600




NRK 0650-0700




| Size | | | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Dimensions and weights** | | | | | | | | | | | | |
| A | A | mm | - | - | - | - | 1875 | 1875 | 1875 | 1875 | 1875 | 1875 |
| | E | mm | 1606 | 1606 | 1606 | 1606 | 1875 | 1875 | 1875 | 1875 | 1875 | 1875 |
| B | A | mm | - | - | - | - | 3330 | 3330 | 3330 | 3330 | 4330 | 4330 |
| | E | mm | 2700 | 2700 | 3200 | 3200 | 3330 | 3330 | 3330 | 3330 | 4330 | 4330 |
| C | A | mm | - | - | - | - | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
| | E | mm | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
| **Dimensions and weights for transport** | | | | | | | | | | | | |
| A | A | mm | - | - | - | - | 2027 | 2027 | 2027 | 2027 | 2039 | 2039 |
| | E | mm | 1735 | 1735 | 1758 | 1758 | 2027 | 2027 | 2027 | 2027 | 2039 | 2039 |
| B | A | mm | - | - | - | - | 3395 | 3395 | 3395 | 3395 | 4387 | 4387 |
| | E | mm | 2760 | 2760 | 3260 | 3260 | 3395 | 3395 | 3395 | 3395 | 4387 | 4387 |
| C | A | mm | - | - | - | - | 1170 | 1170 | 1170 | 1170 | 1170 | 1170 |
| | E | mm | 1160 | 1160 | 1160 | 1160 | 1170 | 1170 | 1170 | 1170 | 1170 | 1170 |

| Size | | | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Integrated hydronic kit: 00** | | | | | | | | | | | | |
| **Weights** | | | | | | | | | | | | |
| Empty weight | A | kg | - | - | - | - | 1.067 | 1.213 | 1.274 | 1.316 | 1.495 | 1.530 |
| | E | kg | 761 | 833 | 913 | 920 | 1.067 | 1.213 | 1.274 | 1.316 | 1.495 | 1.530 |

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