

# ANKI

**Reversible inverter heat pump Air/Water outdoor installation**  
**Twin rotary compressor, Plate exchanger and axial fan**  
**Cooling capacity 5,85 - 12,0 kW**  
**Heating capacity 6,08 - 12,3 kW**

## R410A



Aermec participates in the EUROVENT programme: LCP  
 The products involved can be found at the website  
[www.eurovent-certification.com](http://www.eurovent-certification.com)

Variable Multi Flow

VMF

Ventilatori  
**INVERTER**  
 TECHNOLOGY



- **PRODUCTION OF HOT WATER UP TO 60 °C**
- **PRODUCTION OF HOT DOMESTIC WATER WITH EXTERNAL TEMPERATURES FROM -20 °C UP TO 42 °C**

### Features

Reversible outdoor inverter heating pump for air-conditioning systems where, in addition to cooling rooms, high temperature hot water is required for heating or for the production of hot domestic water.

All the units are equipped with rotary compressors, axial fans, external coil with aluminium fins, and a plate heat exchanger on the side. The base, the structure and the panels are made of steel treated with polyester anti-corrosion paints. They are also available with an integrated hydronic unit, thereby simplifying also the final installation because it just need to be connected electrically and hydraulically to be able to start it.

#### Versions

**ANKI H:** Standard

**ANKI HX:** With inverter pump

#### Range of operations

Working at full load up to -20°C outside air temperature in winter, and up to 46°C in summer. Hot water production up to 60°C (for more information see the technical documentation)

- Single circuit.

- The units are equipped with the soft start, an electronic device to reduce the peak current.
- Flow switch, high and low pressure transducers fitted as standard.
- Water filter supplied
- Option of an integrated hydronic unit, which contains the main hydraulic components.
- Micro-processor adjustment Electronic board

### Accessories

- **MOD845K:** RS-485 interface for supervising systems with MODBUS protocol.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:  
**AERWEB300-6:** Web server to monitor and remote control max. 6 units in RS485 network;  
**AERWEB300-18:** Web server to monitor and remote control max. 18 units in RS485 network;  
**AERWEB300-6G:** Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;  
**AERWEB300-18G:** Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;  
**SDHW: Domestic hot water temperature sensor.** Used with the storage tank to control the temperature of water produced.

- **PGD1:** Simplified remote panel. Allows control of basic unit functions and alarm notification.
- **PR3:** Simplified remote panel. Permits control of the basic unit functions (on/off and change of operating mode, diagnostics and alarm reset). Maximum distance permitted is 30 m with screened cable, otherwise up to 10 m.
- **BSKW:** Electric heater kit with IP44 panel for remote mounting in a sheltered area.
- **DCPX:** Low temperature device for correct cooling mode operation with ambient temperatures
- **BDX:** Condensate drip tray.
- **VT:** Anti-vibration mounts.

#### Accessories for the production of HDW with Thermal buffer Aermec

- **SAF:** Thermal Buffer tank kit with instantaneous Domestic Hot Water production.
- **VTV160:** 3-way diverter sector valve, complete

- with 2-point actuator, (kvs = 16).
- **KRX-SAF:** supplementary electric heater with thermostat control from 1200W 230V/1/50Hz with connexion of 1" 1/2

#### Production of HDW with Thermal buffer not supplied from Aermec

For further information, refer to specific VMF documentation

#### Accessories factory fitted only

- **KR:** Electric anti-freeze resistance for plate heat exchanger.
- **KRB:** Electric anti-freeze resistance kit for base; prevents the formation of ice on the base.

#### COMPATIBILITY with the VMF SYSTEM

For further information about the system see the specific documentation.

## Accessory compatibility

| ANKI                                   | vers | 020 | 025 | 040 | 045 |
|--|------|-----|-----|-----|-----|
| MOD845K                                |      | •   | •   | •   | •   |
| AERWEB300                              |      | •   | •   | •   | •   |
| PGD1                                   |      | •   | •   | •   | •   |
| PR3                                    |      | •   | •   | •   | •   |
| BS4KW230M                              |      | •   | •   | •   | •   |
| BS6KW230M                              |      | •   | •   | •   | •   |
| DCPX                                   | (1)  | 71  | 71  | 71  | 71  |
| BDX                                    |      | 30  | 30  | 30  | 30  |
| VT                                     | H/HX | 9   | 9   | 9   | 9   |
| SAF                                    | (2)  | •   | •   | •   | •   |
| VTV160                                 |      | •   | •   | •   | •   |
| KRX-SAF                                |      | •   | •   | •   | •   |
| <b>Accessories factory fitted only</b> |      |     |     |     |     |
| KR2                                    |      | •   | •   | •   | •   |
| KRB1                                   |      | •   | •   | •   | •   |

(1) **Not use the accessory DCPX for units with fans "J or F"**

(2) For more information, see the commercial documentation available on the website [www.aermec.com](http://www.aermec.com)

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most particular of system requirements.

| Field          | Code   |
|----------------|--|
| <b>1,2,3,4</b> | ANKI   |
| <b>5,6,7</b>   | <b>Size</b><br>020-025-040-045   |
| <b>8</b>       | <b>Model</b><br><b>H</b> Heat pump   |
| <b>9</b>       | <b>Versions</b><br>° Standard<br><b>X</b> With inverter pump   |
| <b>10</b>      | <b>Heat recovery</b><br>° Without heat recovery  |
| <b>11</b>      | <b>Coil fin</b><br>° Aluminium<br><b>V</b> In painted aluminium-copper (epoxy paint)<br><b>O</b> Aluminium with Cataphoresis treatment |
| <b>12</b>      | <b>Fans</b><br>° Standard<br><b>J</b> Inverter<br><b>F</b> Standard phase cut  |
| <b>13</b>      | <b>Field of use</b><br>° Standard (leaving water temperature down to -8°C)   |
| <b>14</b>      | <b>Evaporator</b><br>° Standatd  |
| <b>15</b>      | <b>Power supply</b><br><b>M</b> 230V/1/50Hz  |
| <b>16</b>      | <b>Filed not used</b><br>°   |

## Technical Data

| ANKI - H  |                               |         | 020       | 025  | 040  | 045   |
|---|-------------------------------|---------|-----------|------|------|-------|
| V/ph/Hz   |                               |         | 230V~50Hz |      |      |       |
| 12°C / 7°C  | Cooling capacity              | (1) kW  | 5,85      | 7,31 | 9,39 | 11,78 |
|   | Total input power             | (1) kW  | 1,96      | 2,61 | 3,15 | 4,22  |
|   | EER                           | (1)     | 2,98      | 2,80 | 2,98 | 2,79  |
|   | ESEER                         | (1)     | 4,15      | 4,10 | 4,06 | 4,10  |
|   | Cooling Energy Class Eurovent | (1)     | A         | A    | A    | A     |
|   | Water flow rate               | (1) l/h | 1026      | 1258 | 1622 | 2017  |
| 40°C / 45°C   | Pressure drop                 | (1) kPa | 16        | 22   | 13   | 19    |
|   | Heating capacity              | (2) kW  | 6,23      | 7,80 | 9,35 | 12,33 |
|   | Total input power             | (2) kW  | 1,93      | 2,46 | 3,06 | 4,12  |
|   | COP                           | (2)     | 3,22      | 3,17 | 3,05 | 3,00  |
|   | Heating Energy Class Eurovent | (2)     | A         | B    | B    | B     |
|   | Water flow rate               | (2) l/h | 1062      | 1351 | 1646 | 2124  |
| Performance under average climatic conditions (Average) |                               |         | 14        | 21   | 10   | 17    |
| Pdesignh  |                               |         | (3) 6     | 7    | 8    | 11    |
| SCOP  |                               |         | (3) 2,87  | 2,89 | 2,57 | 2,56  |
| ηs  |                               |         | (3) 112   | 113  | 100  | 100   |
| Efficiency Energy Class                                 |                               |         | (5) A+    | A+   | A+   | A+    |
| Pdesignh  |                               |         | (4) 6     | 7    | 9    | 12    |
| SCOP  |                               |         | (4) 3,57  | 3,55 | 3,41 | 3,20  |
| ηs  |                               |         | (4) 140   | 139  | 133  | 125   |
| Efficiency Energy Class                                 |                               |         | (5) A+    | A+   | A+   | A+    |

| ANKI - HX   |                               |         | 020       | 025  | 040  | 045   |
|---|-------------------------------|---------|-----------|------|------|-------|
| V/ph/Hz   |                               |         | 230V~50Hz |      |      |       |
| 12°C / 7°C  | Cooling capacity              | (1) kW  | 6,00      | 7,49 | 9,59 | 12,00 |
|   | Total input power             | (1) kW  | 1,89      | 2,52 | 3,04 | 4,09  |
|   | EER                           | (1)     | 3,18      | 2,97 | 3,16 | 2,93  |
|   | ESEER                         | (1)     | 4,89      | 5,01 | 4,78 | 4,79  |
|   | Cooling Energy Class Eurovent | (1)     | A         | A    | A    | A     |
|   | Water flow rate               | (1) l/h | 1026      | 1258 | 1622 | 2017  |
| 40°C / 45°C   | High static pressure          | (1) kPa | 74        | 68   | 76   | 61    |
|   | Heating capacity              | (2) kW  | 6,08      | 7,61 | 9,16 | 12,11 |
|   | Total input power             | (2) kW  | 1,86      | 2,36 | 2,95 | 3,98  |
|   | COP                           | (2)     | 3,28      | 3,23 | 3,10 | 3,04  |
|   | Heating Energy Class Eurovent | (2)     | A         | A    | B    | B     |
|   | Water flow rate               | (2) l/h | 1062      | 1351 | 1646 | 2124  |
| Performance under average climatic conditions (Average) |                               |         | 76        | 69   | 77   | 60    |
| Pdesignh  |                               |         | (3) 5     | 7    | 8    | 11    |
| SCOP  |                               |         | (3) 2,91  | 2,95 | 2,62 | 2,61  |
| ηs  |                               |         | (3) 113   | 115  | 102  | 101   |
| Efficiency Energy Class                                 |                               |         | (5) A+    | A+   | A+   | A+    |
| Pdesignh  |                               |         | (4) 6     | 7    | 9    | 12    |
| SCOP  |                               |         | (4) 3,83  | 3,82 | 3,61 | 3,36  |
| ηs  |                               |         | (4) 150   | 150  | 141  | 131   |
| Efficiency Energy Class                                 |                               |         | (5) A++   | A++  | A+   | A+    |

### Date (14511:2013)

- (1) Water evaporator 12°C/7°C, External air 35°C
- (2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.
- (3) Efficiencies for average temperature Applications (55°C)
- (4) Efficiencies for low temperature Applications (35°C)
- (5) Efficiency Energy Class in according to regulation n°811/2013 Pdesignh ≤ 70kW

## Technical Data

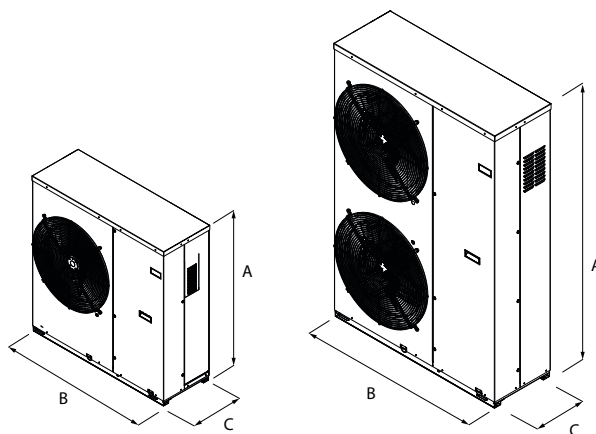
|                                 |                               |     | 020     | 025     | 040  | 045  |      |
|---------------------------------|-------------------------------|-----|---------|---------|------|------|------|
| Electrical data                 |                               |     |         |         |      |      |      |
| 230V                            | Total input current (cooling) | (8) | A       | 8,3     | 11,1 | 13,5 | 18,1 |
|                                 | Total input current (heating) | (8) | A       | 10,5    | 13,2 | 17,6 | 0,0  |
|                                 | Maximum current (FLA)         | (8) | A       | 12,1    | 14,1 | 20,0 | 23,6 |
|                                 | Starting current (LRA)        | (8) | A       | 8,0     | 8,0  | 10,0 | 10,0 |
| 230V                            | Total input current (cooling) | (8) | A       | 9,0     | 11,8 | 14,3 | 18,8 |
|                                 | Total input current (heating) | (8) | A       | 11,2    | 13,9 | 18,4 | 0,8  |
|                                 | Maximum current (FLA)         | (8) | A       | 12,9    | 14,9 | 20,8 | 24,4 |
|                                 | Starting current (LRA)        | (8) | A       | 8,8     | 8,8  | 10,8 | 10,8 |
| Compressor                      |                               |     |         |         |      |      |      |
| Compressor Inverter twin rotary |                               |     | n°      | 1       |      |      |      |
| Circuit                         |                               |     | n°      | 1       |      |      |      |
| Refrigerant                     |                               |     | Type    | R410A   |      |      |      |
| Heat exchanger system side      |                               |     |         |         |      |      |      |
| Exchanger                       |                               |     | Type/n° | Plate/1 |      |      |      |
| hydraulic connections (In/Out)  |                               |     | Ø       | 1"      |      |      |      |
| Axial fans                      |                               |     |         |         |      |      |      |
| Fans                            |                               |     | Type/n° | 1       | 1    | 2    | 2    |
| Air flow rate (cooling)         |                               |     |         | 3590    | 3590 | 7480 | 7480 |
| Sound data (cooling mode)       |                               |     |         |         |      |      |      |
| Sound power level               |                               |     | dB(A)   | 64,0    | 65,4 | 66,7 | 67,7 |
| Sound pressure level            |                               |     | dB(A)   | 32,7    | 34,1 | 35,4 | 36,3 |

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Dimensions (mm)



| ANKI   |     |     |    | 020  | 025  | 040  | 045  |
|--------|-----|-----|----|------|------|------|------|
| Height | (A) | All | mm | 1028 | 1028 | 1481 | 1481 |
| Width  | (B) | All | mm | 1000 | 1000 | 1000 | 1000 |
| Depth  | (C) | All | mm | 346  | 346  | 346  | 346  |
| Weight |     | H   | kg | 80   | 80   | 113  | 113  |
|        |     | HX  | kg | 82   | 82   | 115  | 115  |