

Inverter Air Cooled Heat Pump

AQH DCI 20-30



Technical feature

- 3 sizes.
- Cooling capacity from 20 to 29 kW.
- Heating capacity from 19 to 26 kW.
- Operating Range:
from -10 to 46°C cooling;
from -15 to 40°C heating.
- Inverter compressors.
- Reliable and efficient scroll compressor, three-phase power.
- Brushless motor with variable frequency (20-120 Hz).
- One refrigerant circuit.
- Electronic expansion valve.
- Pump as standard.
- Bluefin coil.
- Operating low water content in the plant.

Accessories and Options

- Buffer tank placed under unit.
- Water filter (standard).
- Differential pressure switch (standard).
- Flow switch.
- Sequence phases control (standard).
- Fan speed control (standard).
- Automatic circuit breaker (standard).
- Hydrometer (standard).
- Mechanical gauges.
- Softstart (standard).
- Power factor corrector capacitors (standard).
- Coils treatments.
- Coil grilles (standard).



Operating limit

Cooling mode

| AQH | | 20 | | 25 | | 30 | |
|----------------------------|----|-----|-----|-----|-----|-----|-----|
| | | Min | Max | Min | Max | Min | Max |
| Leaving water temperature* | °C | -8 | 18 | -8 | 18 | -8 | 18 |
| Δ T water | K | 3 | 8 | 3 | 8 | 3 | 8 |
| Air temperature** | °C | -10 | 45 | -10 | 45 | -10 | 45 |

Heating mode

| AQH | | 20 | | 25 | | 30 | |
|--------------------------|----|-----|-----|-----|-----|-----|-----|
| | | Min | Max | Min | Max | Min | Max |
| Leaving water temperatur | °C | 25 | 55 | 25 | 55 | 25 | 55 |
| Δ T water | K | 3 | 8 | 3 | 8 | 3 | 8 |
| Air temperature** | °C | -15 | 20 | -15 | 20 | -15 | 20 |

* Below 5°C, glycol is required.

** -10°C is given for unit with fan speed controller (optional). Without fan speed controller, the limit is 10°C.

Chillers suitable for operation without buffer tank for water content greater than 2.5 liters of water per kW of output.

Technical feature AQH DCI 20-30

| Model AQH DCI | | 20 | | | 25 | | | 30 | | |
|--------------------------|---------|--------------------------|------|------|-------------|------|------|-------------|------|------|
| Cooling capacity (1) | kW | 7,05 | 20,2 | 25,6 | 8,87 | 25,0 | 30,5 | 10,1 | 29,3 | 31,8 |
| Power input (2) | kW | 6,01 | | | 7,45 | | | 9,43 | | |
| EER | | 3,35 | | | 3,36 | | | 3,11 | | |
| Heating capacity (3) | kW | 6,08 | 18,1 | 22,9 | 8,45 | 21,7 | 28,6 | 9,24 | 25,1 | 29,9 |
| Power input (2) | kW | 6,21 | | | 7,13 | | | 8,50 | | |
| COP | | 2,92 | | | 3,04 | | | 2,95 | | |
| Part load steps | | Stepless | | | | | | | | |
| Power supply | V/ph/Hz | 400/3+N/50 | | | | | | | | |
| Startup type | | Inverter | | | | | | | | |
| Refrigerant | | | | | | | | | | |
| Type | | HFC 410A | | | | | | | | |
| Compressor | | | | | | | | | | |
| Number | | 1 | | | | | | | | |
| Type | | Scroll (BLDC Motor) | | | | | | | | |
| Crankcase heater | W | 40 | | | | | | | | |
| Evaporator | | | | | | | | | | |
| Qty | | 1 | | | | | | | | |
| Type | | Plate exchanger AISI 316 | | | | | | | | |
| Antifreeze heater | W | 35 | | | | | | | | |
| Connection type | | Male gas threaded | | | | | | | | |
| Inlet/outlet diameter | inch | 1½"/1½" | | | | | | | | |
| Water drain connection | inch | ¾" | | | | | | | | |
| Condenser | | | | | | | | | | |
| Qty | | 1 | | | | | | | | |
| Frontal surface | mm | 1.350x1.500 | | | 1.350x1.500 | | | 1.350x1.500 | | |
| Number of rows | | 2 | | | 3 | | | 3 | | |
| Fan | | | | | | | | | | |
| Qty | | 2 | | | 2 | | | 2 | | |
| Air flow | m³/h | 12.220 | | | 11.400 | | | 11.400 | | |
| Speed | rpm/min | 630 | | | 630 | | | 630 | | |
| Power input | kW | 0,6 | | | 0,6 | | | 0,6 | | |
| Pump | | | | | | | | | | |
| Qty | | 1 | | | 1 | | | 1 | | |
| Power input | kW | 0,65 | | | 0,65 | | | 0,65 | | |
| Weight | | | | | | | | | | |
| Shipping | Kg | 269 | | | 285 | | | 285 | | |
| Operating | Kg | 262 | | | 279 | | | 279 | | |
| Dimensions | | | | | | | | | | |
| Length | mm | 1.477 | | | 1.477 | | | 1.477 | | |
| Width | mm | 538 | | | 538 | | | 538 | | |
| Height | mm | 1.625 | | | 1.625 | | | 1.625 | | |
| Acoustical data | | | | | | | | | | |
| Sound power level | dB(A) | 74 | | | 75 | | | 75 | | |
| Sound pressure level (4) | dB(A) | 43 | | | 44 | | | 44 | | |

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Compressors only.

(3) Data based on 45°C leaving hot water temperature and 7°C ambient air temperature.

(4) The sound pressure is calculated from a distance of 10 m.
EER-COP: efficiency in cooling unit according to EN14511-2011.