

Minichiller

Air Cooled Chillers

Cooling Only and Heat Pump from 5 to 40 kW



HFC 407 C
ecological refrigerant

- Flexibility
- Reliability
- Ease of installation



Your climate. We're there

Air Cooled Chillers **Minichiller**



Features



Minichiller by McQuay is the solution for conditioning residential and commercial sites, such as offices, conference room, residence, sports centres and many others.

Available in ten sizes, from 5 to 40 kW, Minichiller is a line of air-cooled chillers, cooling only and heat pump version.

Maximum flexibility



Characterised by an outstanding commissioning and operation flexibility and reliability, all models within the Minichiller line are equipped with an integrated hydraulic section.

With the use of scroll compressors and axial fans operating at low speed, it is possible to achieve sound emission values able to meet even the most stringent standards.

McQuay Fan Coils, available in all versions – console, wall mounted, ducted, ceiling concealed, cassette – and with a full range of accessories complete the system allowing maximum flexibility in meeting site requirements.

Design

The Minichiller series is designed for outdoor installation, having maximum corrosion protection, with panels made of electro-galvanised steel polyester powder painted and provided with waterproof gaskets. Coil protection grids are installed on all models as standard.

Two-compressor models are equipped with two independent refrigeration circuits. Such a solution allows both maximum internal redundancy and thus system reliability and efficient operation at partial load when required.

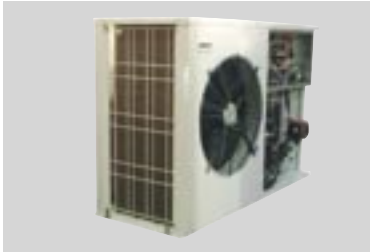
All units are pre-charged with refrigerant R407C and run tested at the factory before shipment.

Air Cooled Chillers **Minichiller**



Features

Accessibility

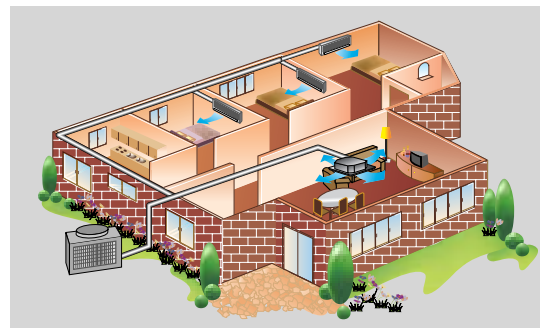


The practical design of the Minichiller facilitates any maintenance work to be carried out. Immediate and easy access to all components is granted by simply opening / removing access doors. Threaded connections available on both sides of the two-compressor units, make hydraulic connections flexible and simple.

Accessories & Options

STANDARD

- Differential Pressure switch
- High/Low Pressure switch
- Built-in hydronic kit:
 - water circulating pump with available head pressure from 65 to 200kPa (depending on the model)
 - expansion vessel
 - water filling/emptying kit
 - automatic safety and vent valve
 - insulated water buffer tank (single-compressor models)
- Finned coils protection grids
- Anti-freezing heater and sensor
- Compressor(s) anti-vibration mounts
- Microprocessor based control
- LCD Display - local or remote installation
- Pre-set for condensation control kit



OPTIONAL

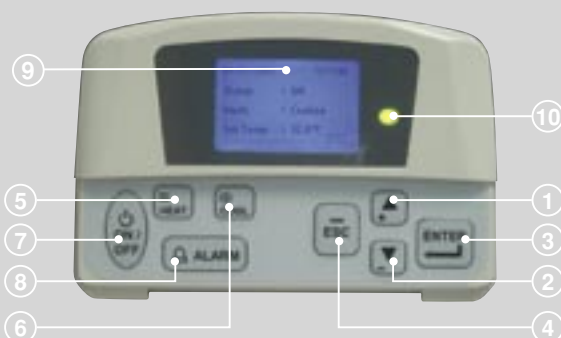
- Condensation control kit
- Water buffer tank (130 litres; separated module) for dual-compressor models
- Additional display

Control

Among its functionalities, Minichiller on board control allows to:

- View: unit status (ON/OFF); operating mode (cooling/heating/boiler); set temperature; compressor(s) status (ON/OFF/Defrost); alarms/errors.
- Set: operating parameters & modes; defrost parameters; password; set and modify display settings; date and timer; 7-day programmable settings.

With a single display it is also possible to control two units in the configuration Master & Slave.



- 1 & 2. Navigation key
3. Execute instruction key
4. Cancel instruction key
5. Switching to heat mode shortcut key
6. Switching to cool mode shortcut key
7. Toggle ON/OFF shortcut key
8. Show alarm key
9. Graphical LCD display
10. ON/OFF indicator

Air Cooled Chillers Minichiller



Technical data

| COOLING | | 020C | 025C | 030C | 040C | 050C | 060C | 080C | 100C | 120C | 150C |
|--------------------------------------|-----|------|------|------|------|------|------|------|------|------|------|
| Cooling Capacity ¹ | kW | 6.2 | 6.7 | 7.9 | 11.7 | 14.7 | 15.2 | 21.7 | 25.8 | 33.7 | 40.2 |
| Total Power Input ² | kW | 2.6 | 3.0 | 3.7 | 4.9 | 6.0 | 6.9 | 9.4 | 10.8 | 12.2 | 14.9 |
| Water Flow | l/s | 0.29 | 0.32 | 0.38 | 0.56 | 0.70 | 0.73 | 1.04 | 1.23 | 1.61 | 1.92 |
| Available Head Pressure ³ | kPa | 73 | 99 | 89 | 92 | 68 | 70 | 220 | 194 | 194 | 177 |

| HEAT PUMP | | 020CR | 025CR | 030CR | 040CR | 050CR | 060CR | 080CR | 100CR | 120CR | 150CR |
|--------------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cooling Capacity ¹ | kW | 5.0 | 6.4 | 7.3 | 11.7 | 13.5 | 14.9 | 21.7 | 25.8 | 32.2 | 38.7 |
| Heating Capacity ⁴ | kW | 5.9 | 7.5 | 9.5 | 13.2 | 14.9 | 17.6 | 26.4 | 28.7 | 34.6 | 40.0 |
| Total Power Input ² | kW | 2.6 | 3.1 | 3.8 | 4.9 | 5.5 | 6.5 | 9.9 | 11.0 | 12.7 | 15.5 |
| Water Flow (Cooling) | l/s | 0.24 | 0.31 | 0.35 | 0.56 | 0.64 | 0.71 | 1.04 | 1.23 | 1.54 | 1.85 |
| Available Head Pressure ³ | kPa | 87 | 101 | 94 | 92 | 82 | 75 | 220 | 194 | 201 | 183 |

| Compressor | | | | | | | | | | | | | |
|-----------------------------------|---------|--------------------------|-------|-------|----------------------------|-------|-------|----------------------------|------------|------------|------------|---|--|
| Number / Type | n° | 1 / rotary | | | 1 / scroll | | | | 2 / scroll | | | | |
| Number of Circuits | n° | 1 | | | | | | | | | | 2 | |
| Refrigerant Charge | kg | 1.5 | 1.8 | 1.6 | 3.0 | 3.5 | 4.0 | 2 x 4.0 | 2 x 4.6 | 2 x 7.5 | 2 x 6.8 | | |
| Hydraulic Section | | | | | | | | | | | | | |
| Number / Type Pump | n° | 1 / high head circulator | | | 1 / horizontal multi-stage | | | 1 / horizontal multi-stage | | | | | |
| Expansion Vessel Volume | l | 2 | 2 | 2 | 5 | 5 | 5 | 8 | 8 | 8 | 8 | | |
| Buffer Tank Volume | l | 22 | 22 | 22 | 42 | 42 | 42 | -- | -- | -- | -- | | |
| Water Connections Location | -- | right | right | right | right | right | right | right/left | right/left | right/left | right/left | | |
| Water Connections Diameter | mm | 25,4 | 25,4 | 25,4 | 25,4 | 25,4 | 25,4 | 42 | 42 | 42 | 42 | | |
| Sound Emissions | | | | | | | | | | | | | |
| Sound Pressure Level ⁵ | dB(A) | 57 | 57 | 58 | 59 | 59 | 60 | 62 | 64 | 67 | 70 | | |
| Power Supply | V/ph/Hz | 220-240/1/50 | | | 380-415/3/50 | | | 400/3/50 | | | | | |

NOTES

- At the following nominal conditions: 12/7°C evaporator inlet/outlet water temperature; 35°C outdoor air temperature
 - Compressor(s), fan(s) and water circulating pump power input (cooling)
 - Available Head Pressure at nominal operating conditions (cooling)
 - At the following nominal conditions: 40/45°C condenser inlet/outlet water temperature; 7°C d.b./6°C w.b. outdoor air temperature
 - Measured with 35°C outdoor temperature, 1m from the unit, free field conditions, according to ISO 3744
 - 35°C outdoor temperature, calculated according to ISO 3744
- McQuay reserves the right to change design and specifications without prior notice.

Dimensions & Weights

| COOLING / HEAT PUMP | | 020C/CR | 025C/CR | 030C/CR | 040C/CR | 050C/CR | 060C/CR | 080C/CR | 100C/CR | 120C/CR | 150C/CR |
|---------------------|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Height (H) | mm | 800 | 800 | 800 | 1410 | 1410 | 1410 | 1260 | 1260 | 1260 | 1260 |
| Width (W) | mm | 1150 | 1150 | 1150 | 1150 | 1150 | 1150 | 1500 | 1500 | 1800 | 1800 |
| Depth (D) | mm | 450 | 450 | 450 | 450 | 450 | 450 | 900 | 900 | 1150 | 1150 |
| Weight | kg | 116 | 123 | 128 | 195 | 196 | 203 | 350 | 360 | 480 | 560 |



020C/CR-025C/CR-030C/CR



040C/CR-050C/CR-060C/CR



080C/CR-100C/CR-120C/CR-150C/CR

McQuay Italia S.p.A. - S.S. Nettunense, Km 12+300 - 00040 Cecchina - Roma - Italy
 Tel. +39 06.937311 - Fax. +39 06.9374014 - info@mcquayeuropa.com - www.mcquayeuropa.com
McQuay (UK) Ltd. - 3rd Floor, Bolsover House, 5-6 Clipstone Street - London - W1W 6BB
 Ph. 020 7631 4864 - Fax. 020 7631 4865
McQuay España S.A. - c/Calidad, 60 - Pol. Ind "Los Olivos" 28906 - Getafe - Madrid - España
 Tlf. 91 6010780 - Fax. 91 6010781 - info@mcquay.es

McQuay[®]
 Air Conditioning

Global Leader In System Solutions for Air Conditioning, Heating, Ventilating and Refrigeration