

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.

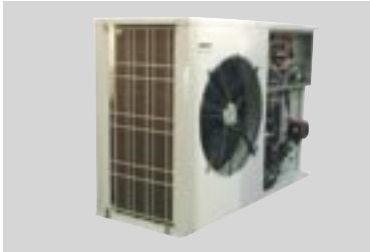
All units are pre-charged with refrigerant R407C and run tested at the factory before shipment.

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Features

Accessibility

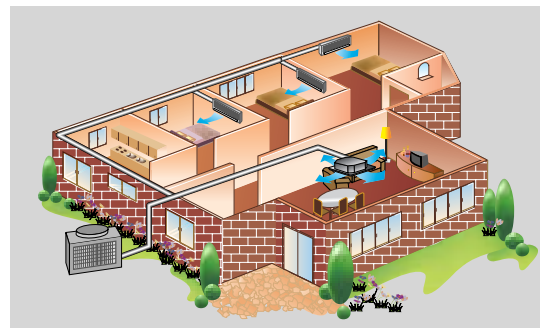


The practical design of the Minichiller facilitates any maintenance work to be carried out. Immediate and easy access to all components is granted by simply opening / removing access doors. Threaded connections available on both sides of the two-compressor units, make hydraulic connections flexible and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

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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