



Air-to-water reversible heat pumps and water chillers

TECHNICAL SPECIFICATIONS

| AQUALIS 2 | | 20H | 28H | 35H | 50H | 20HT | 28HT | 35T 35HT | 50T 50HT | 65T 65HT | 75T 75HT | |
|------------------------------------|---|--|--------------------|------|-----------|-----------|------|-------------|-------------|-------------|-------------|------|
| Compressor | Quantity | 1 | | | | | | | | | | |
| | Type | SCROLL | | | | | | | | | | |
| | Oil content | L | 1,1 | 1,25 | 1,66 | 1,1 | 1,25 | 1,95 | 1,66 | 1,77 | | |
| Refrigerant fluid | | POE oil | | | | | | | | | | |
| | | R410A | | | | | | | | | | |
| Refrigerant weight | Cooling only | kg | - | | | | | 1,42 | 2,4 | 3,1 | 3,0 | |
| | Reversible | | 1,37 | 1,6 | 1,62 | 2,67 | 1,37 | 1,6 | 1,62 | 2,67 | 3,2 | 2,85 |
| Crankcase heater current and power | | W/A | 45W / 0,2A option* | | | | | | | | | |
| Coil type | | Grooved copper tubes with aluminium fins | | | | | | | | | | |
| W-C heat exchanger | Water content | L | 1,04 | 1,24 | 1,62 | 2,38 | 1,04 | 1,24 | 1,62 | 2,38 | 2,76 | 3,7 |
| Fan | Type | Axial | | | | | | | | | | |
| | Number of fans | | 1 | | 2 | 1 | | 2 | | | | |
| | rpm | | 718 | 897 | 718 | | 897 | 718 | 897 | | | |
| Hydraulic module | Accelerator pump | | 3 speeds | | | | | | | | | |
| | Expansion vessel | L | 5 | | 8 | 5 | | 8 | | | | |
| | Expansion vessel pre-charge pressure | bar | 1,5 | | | | | | | | | |
| | Maximum service pressure | bar | 4 | | | | | | | | | |
| | Maximum volume of RFHC system** maximum water temperature of 40°C pure water/40%MPG | L | 294 / 150 | | 471 / 240 | 294 / 150 | | 471 / 240 | | | | |
| | Maximum volume of radiator system** maximum water temperature of 70°C/90°C pure water/40% MPG | L | 88 / 54 | | 141 / 87 | 88 / 54 | | 141 / 87 | | | | |
| | Minimum pure water content for smooth unit operation | L | 35 | 48 | 61 | 75 | 35 | 48 | 61 | 82 | 95 | 123 |
| Weight | Empty | kg | 77 | 82 | 87 | 123 | 77 | 82 | 87 | 123 | 138 | 142 |
| | In operation | | 85 | 90 | 95 | 135 | 85 | 90 | 95 | 135 | 150 | 155 |

* Compulstory in cooling mode when outdoor temperatures fall below 0°C

** An additional expansion vessel is needed for larger volumes

SOUND LEVELS*

| AQUALIS 2 | | 20 | 28 | 35 | 50 | 65 | 75 |
|-----------------------|-------|----|----|----|----|----|----|
| Sound pressure levels | dB(A) | 41 | 46 | 47 | 45 | 48 | 50 |

* measured at 5 metres from unit, 1.5 metres from ground, in a free field, directivity 2

ELECTRICAL SPECIFICATIONS

| AQUALIS 2 | | 20H | 28H | 35H | 50H | 20HT | 28HT | 35T 35HT | 50T 50HT | 65T 65HT | 75T 75HT |
|---|---------------------------|----------------------------|-----------|------|----------|-------|----------------------------|-------------|-------------|-------------|-------------|
| Rated voltage of unit | | 230V - 1ph +N+Earth - 50Hz | | | | | 400V - 3ph +N+Earth - 50Hz | | | | |
| Compressors | Maximum operating current | A | 12,9 | 17,5 | 22,2 | 29,8 | 4,8 | 6,4 | 7,6 | 10,3 | 11,2 |
| Fans | Maximum operating current | A | 0,47 | 0,74 | 0,47x2 | 0,47 | 0,74 | 0,47x2 | 0,74x2 | | |
| Accelerator pump | Output per unit | min | 50 | 115 | 120 | 50 | 115 | 120 | 180 | | |
| | Output per unit | max | 140 | 205 | 210 | 40 | 205 | 210 | 400 | | |
| | Rated current | min | 0,32 | 0,6 | 0,65 | 0,32 | 0,6 | 0,65 | 0,91 | | |
| | Rated current | max | 0,61 | 1 | 1,1 | 0,61 | 1 | 1,1 | 2,02 | | |
| Current of entire unit | | A | 14 | 19 | 24 | 31,8 | 5,9 | 7,9 | 9,3 | 13,3 | 14,7 |
| Starting current | | A | 22 | 29 | 39 | 43 | 30 | 40 | 48 | 64 | 74 |
| Electrical wiring (not supplied) (1) | | mm² | 3G4 | 3G6 | 3G10 (2) | 5G2,5 | 5G4 | | | | |
| C or D curve circuit breaker (not supplied) | | Am | 16 | 20 | 25 | 32 | 10 | 16 | 20 | | |
| Thermostat, pool sensor, On/Off input connections | | mm² | 0,2 - 1,5 | | | | | | | | |
| Control circuit, connection kit | | mm² | 1,5 | | | | | | | | |

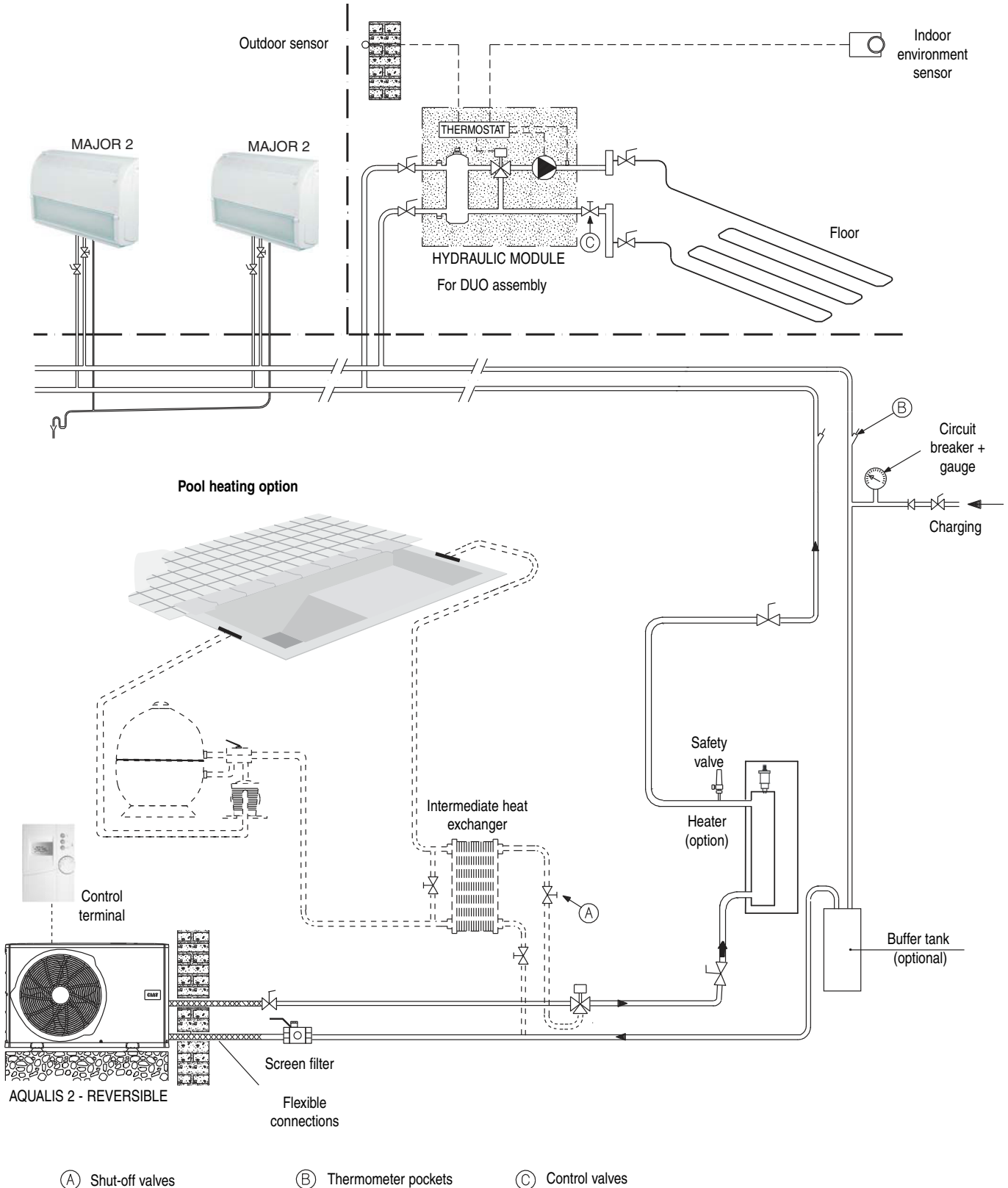
(1) Cable with 2 or 3 charged PVC conductors for temperatures below 50°C and for a maximum length of 30 m.

Note: For other conditions, refer to French standard NF C 15-100.

(2) A 3G6 cable with PVC/V2-K (high temperature) conductors may be used for the 50/50H model.

SCHEMATIC INSTALLATION DIAGRAM

Residential and/or RFHC system terminal units



Note: the schematic diagrams herein are provided for information only. Under no circumstances do they constitute actual installation diagrams.

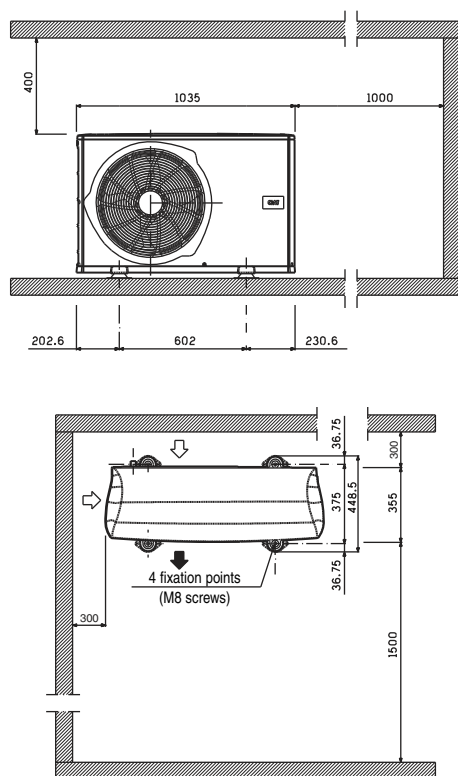
ASSEMBLY RECOMMENDATIONS

Installation

Aqualis 2 units are designed to be installed outdoors on a home deck/patio or in a garden.

- Nothing should obstruct the air flow over the coil or the fan discharge.
- Carefully consider where to install the unit and choose a location appropriate for the surrounding environment (noise levels, integration on site, etc.).
- Enough clearance should be left around the unit to allow for connections, servicing and maintenance.

Necessary clearance around the unit



Electrical connections

All the information needed to wire the system is provided on the wiring diagram supplied with the unit. The diagram should be followed to the letter.

Wiring must be carried out in accordance with accepted engineering practice and conform to the regulations in force.

A cut-off switch and circuit breaker must be installed on the unit by the fitter.

NOTE: To protect the unit from freezing temperatures, leave it on to allow the water to continue flowing through the water circuit. Add glycol if the outdoor temperature falls below 0°C.

Hydraulic connections

Hydraulic connections are to be made in accordance with good engineering practice.

To prevent transmitting noise through the ground or pipes, we recommend using hoses for the hydraulic connections and placing anti-vibration mounts under the unit.

- Place a screen filter with a maximum particle size of no more than 600 µm on the water circuit to protect it from fouling.

Commissioning

- Follow the instructions given in our installation and maintenance manuals.

Servicing

- Follow the owner's manual.
- Take out a maintenance contract.

This document is non-contractual. As part of its policy of continual product improvement, CIAT reserves the right to make any technical modification it feels appropriate without prior notification.

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CERTIFIED ISO 9001
QUALITY SYSTEM



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