

**Housing**

Base frame in galvanized sheet steel, stove-enamelled with polyurethane powders and is equipped with bearing foot, for fixed installation. Internal metal works in galvanized sheet steel. Panels in galvanized steel painted with epoxy powder to ensure total weathering resistance.

**Compressor**

Rotative hermetic compressor fitted on antivibration mountings. Electrical motor is cooled by refrigerant suction gas and is protected against working anomalies by thermistors embedded in windings.

**Fan**

Axial type directly coupled to the electric motor, 4 or 6 poles, external rotor type, with special labyrinth watertight, bearings free from servicing and incorporated thermal protection. Fans have blades with haul profile, dynamically and statically balanced and are equipped with accident prevention grill on air inlet.

**Air heat exchanger**

Air exchangers, composed by a heat exchanger coil, with copper tubes mechanically expanded, into aluminium fins coil. Vertically fitted, together with fan it is completely separated (not for all models) from the remaining components of the unit.

**Water heat exchanger**

"No Frost" type: copper tubes in a plastic pipe fitted into a steel tank with shell covered with closed-cell neoprene anti-condensate material; complete with water differential pressure switch.

**Electrical board**

Each unit is equipped with electric panel, built and wired and fully tested at the factory. All the wiring is numbered and stationed inside the equipment optimally to facilitate troubleshooting. The installed components are identified by nameplates to better identify the application and the type of action. The electrical equipment is manufactured according to EN60204-1, and is complete with the following main components:

- Main switch and door lock
- Protective circuit-breakers or fuses on every load
- Contactor for each load
- Transformer for auxiliary circuit power supply and the system microprocessor regulation
- Terminal board for external enable contacts and alarm

## Control

The microprocessor control system in addition to providing a rapid and intuitive digital interface to the user, manages all machine control operations offering, thanks to the possibilities given by the electronics, a thorough safety and completa on the operation of the whole system. The LCD display is backlit type. Using the display, you can monitor the performance of the system variables and display all the working conditions or the settings.

In more detail, you can perform the following functions:

- Programming of the machine with password-protected access to ensure safety to the most sensitive parameters
- Ability to change at any time the main conditions of operation which may be protected by password
- View by display the alarms detected and their acoustic signal by a buzzer (only in some models), the historicization of alarms can be found by querying the display (only with clock card)
- LED display of the active functions
- Visualization of all the measured
- Operator interface with digital display
- Remote Management cumulative alarm free power contact
- Ready for ON/OFF remotely
- Alarm reset and unlock unit from keyboard
- Audible alarm (only in some models)
- Control keyboard
- Self-diagnostic Functions
- Ability to manage the local network via the LAN connection and management of multiple devices (optional only by additional card)
- Ability to output serial interfacing with external supervision systems (optional only by additional card)
- Any possibility of manual handling of individual components installed
- Flash memory that has the function to keep in memory the data set in case of lack of power supply

## Frigorific circuit

The refrigerant circuit is made entirely of copper tube, brazed with silver alloy, and is isolated on the suction part, to avoid the formation of condensation. It is designed to minimize the load losses so as to avoid capacity reductions and realized in a workmanlike. A special safety device ensures the opening of the circuit before reaching critical operating situations.

Essentially consists of:

- Filter molecular sieve, capable of retaining impurities of mechanical origin and dryer to protect and to eliminate the circuit from the circuit traces of moisture
- Indicator liquid passage for the verification of the charge and of the moisture content of the gas, thanks to an indicator color change
- Valve on the liquid line (not for all models)
- Solenoid valve with shut-off function installed on the liquid line (not for all models)
- Thermostatic expansion valve with external equalizer
- Pressure transducers that transmit readings directly to the microprocessor by unit (only in some models)
- High pressure switch with manual reset
- Low pressure switch with manual reset
- Flexible pipings for pressure switches connection and pressure sensors (not flexible in case of pressure switches only)
- Refrigerant charge and non-freezing oil
- Proportional signal 0-10V. for condensing control (optional)

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## Water circuit

The Integrated solution already mounts most of the water circuit components in the unit thus making extremely easy and simple the connection to the user system. Moreover the pump control equipment is fitted inside the electrical board of the unit and the microprocessor control manages the pump starting, timing and all the safety devices of the whole system cutting automatically out the refrigerant circuit when necessary.

The main components of this solution are:

- Discharge water valve
- Water gauge
- Safety valve water side
- Peripheral pump for circulation of the water
- Water tank
- Fixed by pass
- Open expansion tank
- Manual air venting valve
- Electrical equipment for water pump

**TECHNICAL DATA**
**CTA\_MICRO-I/ST/AS M6**
**REFRIGERANT GAS**
**R407C**
**UNIT PERFORMANCES**

Cooling capacity (1)	kW	8,3
ESEER		2,82
IPLV		3,12

**COMPRESSORS**

Power input (1)	kW	2,1
Absorbed current (1)	A	10,4
Independent refrigerant circuits		1
Compressor quantity		1

**POWER SUPPLY**
**230/1/50**

Max absorbed current	A	13,4
Starting current	A	47,6

**FANS**

Fans quantity		1
Power input (total)	kW	0,07
Absorbed current (total)	A	3,20
Air flow	m <sup>3</sup> /h	1.900
Outdoor air temperature	°C	25,0

**EVAPORATOR**

Fluid type		<b>Water</b>
Fluid flow	m <sup>3</sup> /h	1,4
Fluid pressure drop	kPa	33,4
Inlet fluid temperature	°C	20,0
Outlet fluid temperature	°C	15,0
Water Fittings		1/2"

**INTEGRATA SOLUTION**

Useful head (*)	kPa	170,0
Water pump motor power input	kW	0,3
Water tank volume (* at nominal water flow)	l	23,0

**SOUND PRESSURE LEVELS**

63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	dB(A)
dB								
75.3	71.3	75.3	66.7	60.1	57.8	51.5	46.8	

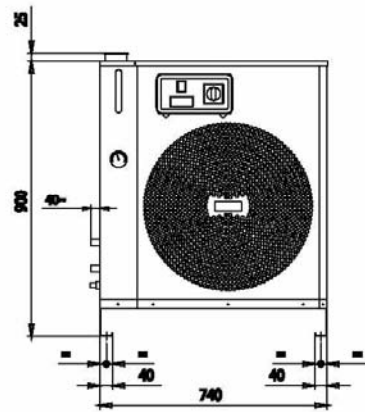
Sound pressure level at 1m in free field.

**DIMENSIONS AND WEIGHT**

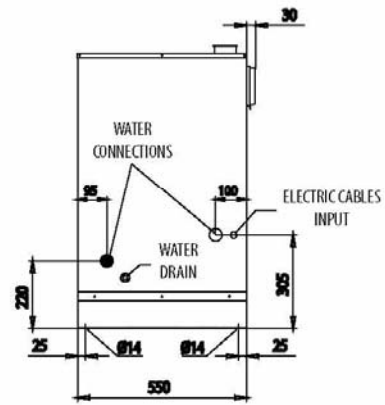
Length (L)	mm	740
Height (H)	mm	900
Depth (P)	mm	550
Weight	Kg	115

THE DECLARED COOLING CAPACITY ARE NOT TAKING INTO ACCOUNT THE PUMP MOTOR POWER INPUT (WHERE PROVIDED). THIS ONE MUST BE DEDUCTED TO GET THE NET COOLING CAPACITY.

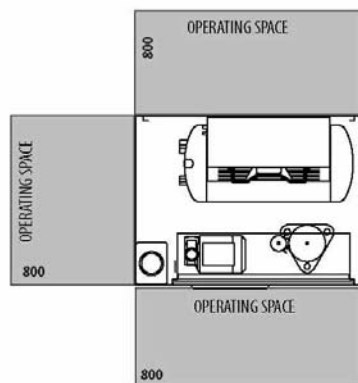
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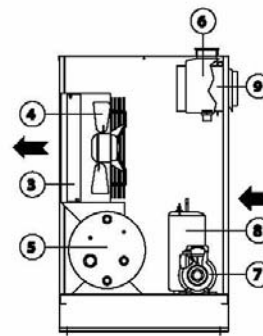
FRONT VIEW



BACK VIEW



TOP VIEW



SIDE VIEW



CONDENSER AIR FLOW