



**CPC**

**klimatix**



# klimatix

Klimatix is the Air-Conditioning products brand of Mecalor Group, comprising the manufacturing of chillers (liquid coolers) and precision air conditioners to serve data centers, industries, commercial buildings, shopping centers and hospitals.

A brand of global reach that was born with the tradition of more than 60 years in thermal engineering.

The mission of the Klimatix business division is to bring knowledge, technical competence, and technological innovation to the air-conditioning market, with cost-effective products, extraordinary after-sales service, and skilled application engineering to understand the needs of designers, installers, and customers.

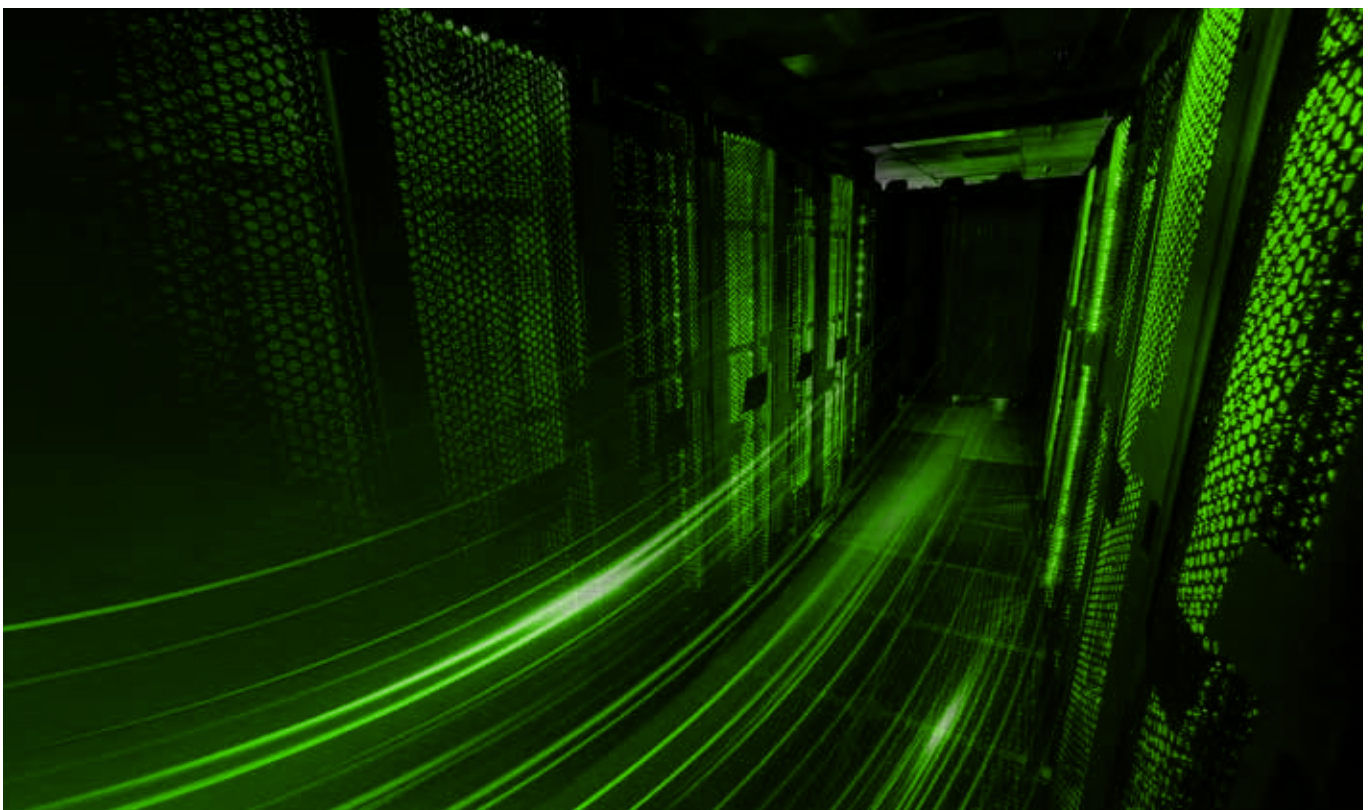
Schedule a visit to our plant.  
[contato@klimatix.com](mailto:contato@klimatix.com)

# Precision Air Conditioner

Chilled Water Air Handler

# CPC

Capacity of 18 kW to 100 kW







## Application

Data center rooms, UPS rooms,  
or telephone centers

klimatix

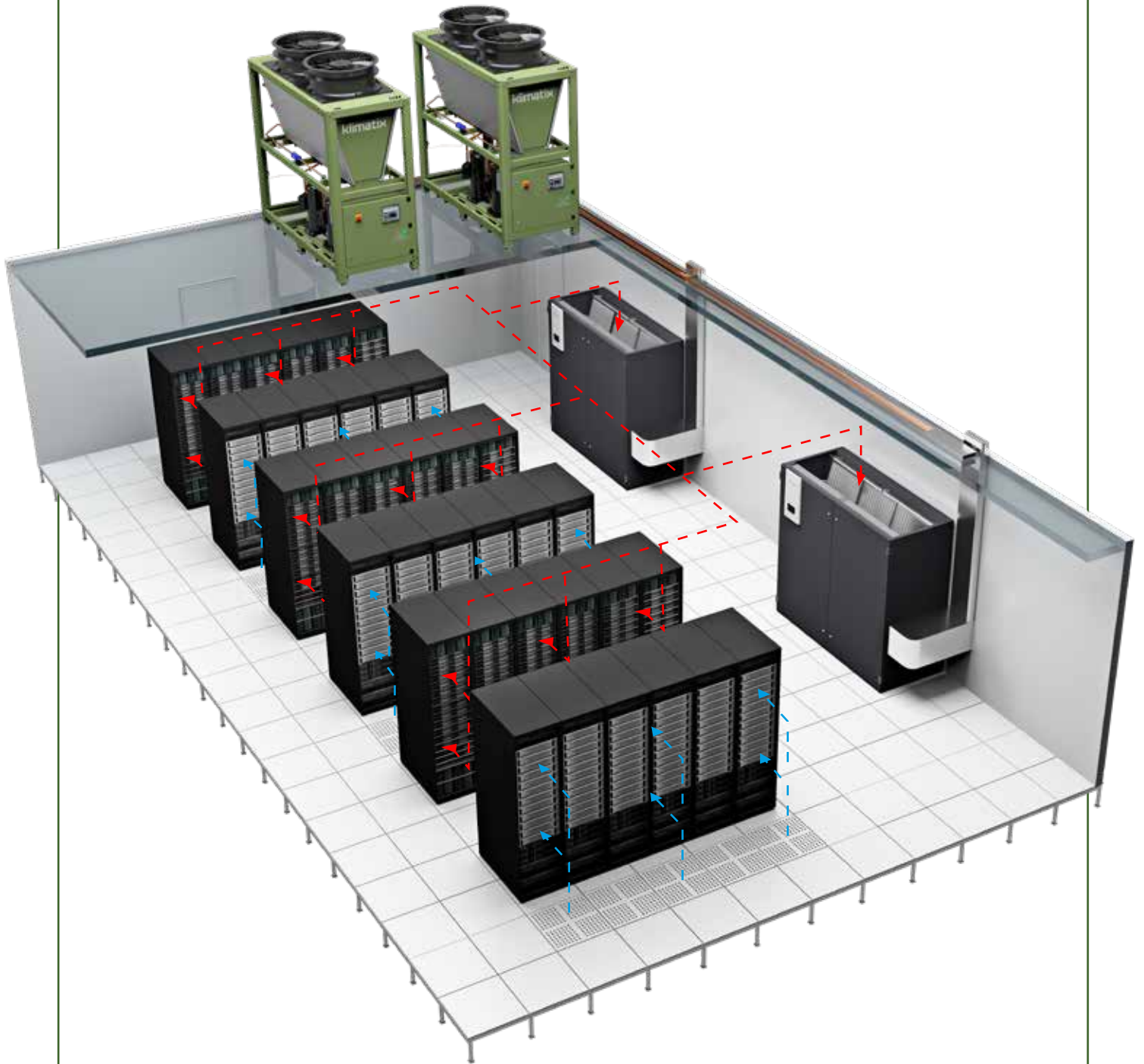


CPC Chilled water  
air conditioner

## Benefits

- Reliable operation 24/7
- Easy maintenance access
- Very high energy efficiency
- Precise temperature and humidity control
- Colored HMI touchscreen with user-friendly interface
- Ideal technology for great thermal load variations
- Low noise and automatic fan speed adjustment
- Automatic cold water flow adjustment
- Wide range of optional configurations
- High availability rates (uptime)
- High performance EC fans
- Robust build

System  
designed for  
high efficiency



- Return
- Air Supply

# Nomenclature - CPC

CP C - D - 35 - URF - 380 \*

Precision Air Conditioner

C: Indirect Expansion (Fancoil)

D: Downflow

F: Displacement

U: Upflow

Nominal capacity:

18, 26, 35, 50, 70 or 100 kw

1.° Digit { 0: no humidifier  
U: humidifier (steam generator)

2.° Digit { 0: no reheating  
R: reheating (electrical resistance)

3.° Digit { F: Two-way valve

Configurations:

/M: Air filter M5

/D: Dual electric power supply

/S: SNMP Communication

/I: Flooded floor sensor

/P: Metal base for raised floor

/R: Damper

/O: Plenum discharge tank

/F: Metal base for raised floor  
with fan

/N: Bacnet Communication

/Y: Three-way valve

\*: Special frequency: 50Hz

Standard Voltage of the CPC

3-phase, 220 V, 60 Hz

3-phase, 380 V, 60 Hz

3-phase, 440 V, 60 Hz



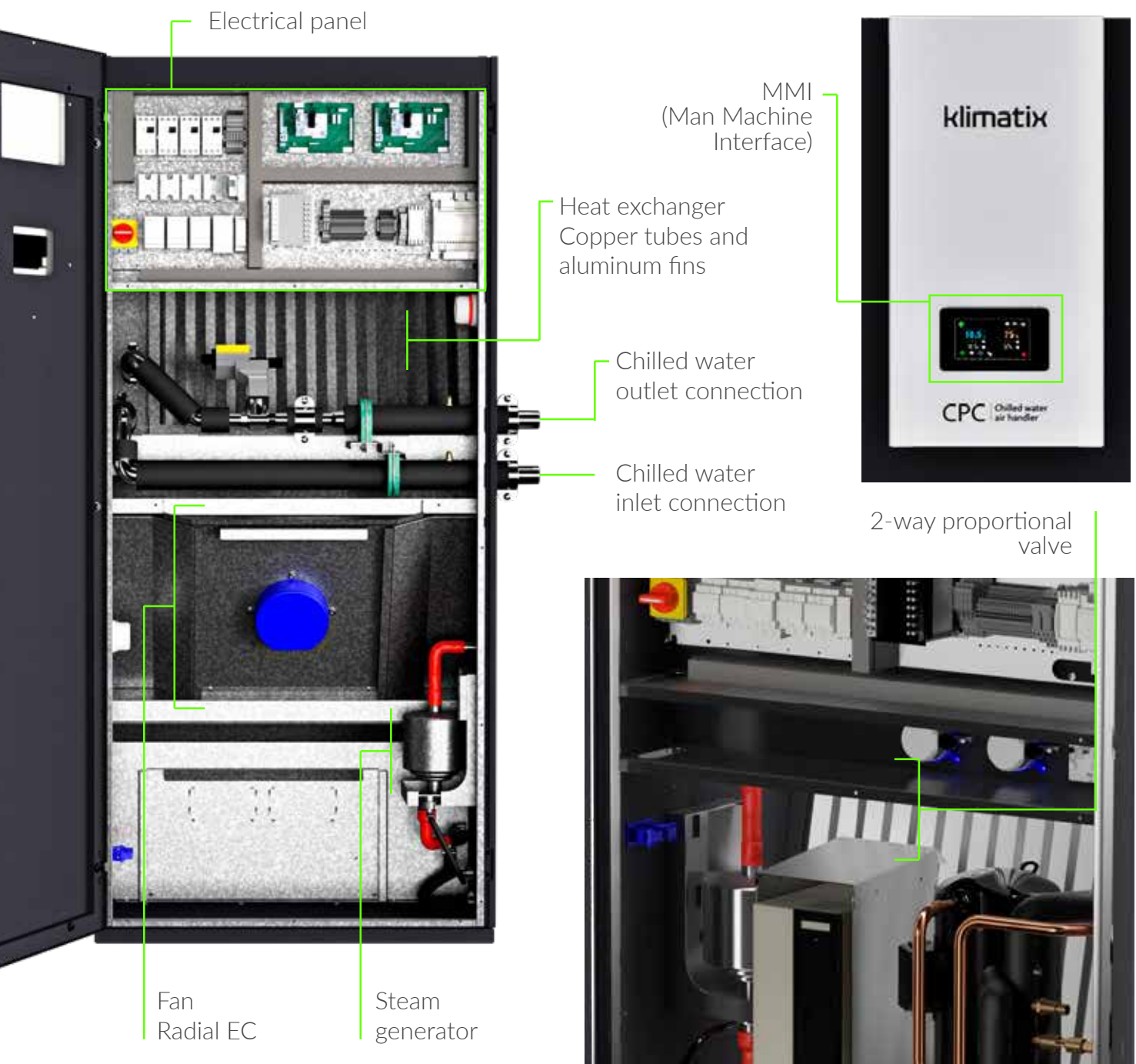
# Technical Description

The air conditioners of the CPC line are equipment that use chilled water for energy removal and are intended for application in critical mission environments with high sensible heat factor for temperature, relative humidity and air quality control.

Designed for continuous, reliable, long-lasting operation with precise temperature and

humidity control, low power consumption, and low noise level. Optimized airflow by applying CFD tools for maximum efficiency, energy savings, and fans with EC-technology motor.

**They have several configurations available to adapt the equipment to the needs of each application.**



## • Control Technology

Six models with nominal capacities of 18, 26, 35, 50, 70, and 100 kW and Downflow, Displacement, and Upflow air insufflation directions.

Network communication with up to 254 devices grouped into air conditioning zones with a maximum of 10 units.

Communication using Modbus TCP/IP and Modbus RTU protocols that allows remote access to operating conditions, activation, parameterization, and operating log verification. Optionally the SNMP or Bacnet protocols can be integrated.

Control and monitoring of the operating conditions performed by PLC and visualization of the operating status, logs, and parameterization by accessing the colored touchscreen MMI positioned on the front cover.

Front access for maintenance of all equipment components.

Electrical panel incorporated into the cabinet with IP-40 protection grade.

## • Ventilation

Radial fans with high efficiency EC type electric motor and proportional air flow control according to operating condition.



## • Cooling

Setting the temperature control reference in the return, insufflation according to equipment configuration.

Operation adjustment temperature between 18°C to 35°C and relative humidity between 40% to 60% and temperature control.

Cooling and Dehumidification of the air carried out by water circulation from a chilled water system (chiller or unit and chilled water) passing through a finned heat exchanger made of copper pipes and aluminum fins. The system has automatic water flow control by means of a two-way proportional valve.

## • Others

Cabinet manufactured in galvanized carbon steel and electrostatic painting in color RAL 9005.

Side and rear covers are thermally insulated with elastomeric blanket and protected by metal plates.

Electrical components for sectioning, protection and activation of devices and motors mounted according to NBR 5410 in an assembly plate manufactured in galvanized carbon steel.

Class G4 filtering according to NBR16101 and differential pressure switch for dirty filter indication and automatic flow rate adjustment to compensate the pressure drop generated by the saturation of the filter.



# Optional Configurations

## REHEATING

Electric with one or two resistance zones made of AISI304 stainless steel, proportional control and safety thermostat.

## HUMIDIFIER

Humidifier with immersed electrodes, plastic tank, filling and draining valves and proportional control of superheated vapor generation.

## DAMPER

Motorized and installed on the top of the unit avoiding the return of the airflow through the equipment.

## PLENUM DISCHARGE TANK

Used in the Upflow version with double deflection louvers for directing the air flow.

## FILTER

Class M5 filter according to NBR 16101.

## COMMUNICATION

SNMP, BACNET MS/TP, BACNET IP Protocols, others on request.

## WET FLOOR SENSOR

Alarm for the presence of moisture on the floor.

## HIGH BASE

Used in equipment of the downflow type, manufactured in carbon steel and finished with black electrostatic paint in black RAL 9005. With deflector to direct the air flow and adjustable feet that allow leveling and height adjustment in +/- 30mm. Standard heights of 300mm, 400mm, 500mm and 600mm. Other measures on request.

## DUAL ELECTRIC POWER SUPPLY

Switchboard equipped with ATS switch for dual electric power supply and automatic switching in case of failure in the main power supply.

# Technical Data

|                                  | Description                       | Unit                            | Model             |          |          |          |          |           |      |
|----------------------------------|-----------------------------------|---------------------------------|-------------------|----------|----------|----------|----------|-----------|------|
|                                  |                                   |                                 | CPC - 18          | CPC - 26 | CPC - 35 | CPC - 50 | CPC - 70 | CPC - 100 |      |
| Operations Conditions            | Fancoil                           |                                 |                   |          |          |          |          |           |      |
|                                  | Total capacity (1)                | kW                              | 17,4              | 25,8     | 33,0     | 50,9     | 70,8     | 98,9      |      |
|                                  | Sensible capacity                 | kW                              | 16,6              | 24,6     | 31,4     | 48,8     | 66,8     | 92,4      |      |
|                                  | Useful capacity                   | kW                              | 15,5              | 23,1     | 29,6     | 45,4     | 63,0     | 87,0      |      |
|                                  | Efficiency EER                    | -                               | 15,439            | 17,075   | 18,242   | 15,113   | 18,418   | 18,386    |      |
|                                  | Sensible heat factor              | -                               | 0,95              | 0,95     | 0,95     | 0,96     | 0,94     | 0,93      |      |
|                                  | Direction of air insufflation     | -                               | Down / Up flow    |          |          |          |          |           |      |
|                                  | Nominal flow rate                 | m <sup>3</sup> /h               | 5000              | 7000     | 9500     | 15000    | 20000    | 27500     |      |
|                                  | Maximum static pressure available | Pa                              | 200               | 250      | 250      | 250      | 250      | 250       |      |
|                                  | Specific fan power (SFP) (2)      | W/(m <sup>3</sup> /s)           | 811               | 777      | 686      | 808      | 692      | 704       |      |
|                                  | Filtering class                   | -                               | G4                |          |          |          |          |           |      |
|                                  | Downflow sound pressure (3)       | dB(A)                           | 66                | 66       | 62       | 69       | 65       | 66        |      |
|                                  | Upflow sound pressure (3)         | dB(A)                           | 68                | 68       | 64       | 71       | 67       | 68        |      |
|                                  | Dimensional                       | Chilled water flow rate         | m <sup>3</sup> /h | 3,0      | 4,4      | 5,7      | 8,7      | 12,2      | 17,0 |
|                                  |                                   | Chilled water inlet temperature | °C                | 7,0      | 7,0      | 7,0      | 7,0      | 7,0       | 7,0  |
| Chilled water outlet temperature |                                   | °C                              | 12,0              | 12,0     | 12,0     | 12,0     | 12,0     | 12,0      |      |
| Load loss                        |                                   | kPa                             | 47                | 48       | 59       | 46       | 62       | 99        |      |
| Width                            |                                   | mm                              | 910               | 910      | 1060     | 1585     | 2115     | 2740      |      |
| Depth                            |                                   | mm                              | 620               | 885      | 885      | 885      | 885      | 885       |      |
| Height                           |                                   | mm                              | 2000              | 2000     | 2000     | 2000     | 2000     | 2000      |      |
| Occupied area                    |                                   | m <sup>2</sup>                  | 0,56              | 0,81     | 0,94     | 1,40     | 1,87     | 2,42      |      |
| Weight                           |                                   | kg                              | 390               | 415      | 465      | 560      | 750      | 925       |      |
| Maintenance                      |                                   |                                 | Front             |          |          |          |          |           |      |
| Maintenance access               |                                   | mm                              | 900               |          |          |          |          |           |      |
| Inlet connection diameter        |                                   | in                              | 1 1/4             | 1 1/2    | 1 1/2    | 1 1/2    | 2        | 2 1/2     |      |
| Outlet connection diameter       |                                   | in                              | 1 1/4             | 1 1/2    | 1 1/2    | 1 1/2    | 2        | 2 1/2     |      |
| Power Rating                     |                                   | Nominal power (1) (4)           | kW                | 1,2      | 1,6      | 1,9      | 3,5      | 4,0       | 5,5  |
|                                  |                                   | Maximum power (4)               | kW                | 1,5      | 2,1      | 3,5      | 4,1      | 6,9       | 10,3 |
|                                  | Reheating resistor                | kW                              | 4,5               | 6,0      | 9,0      | 12,0     | 18,0     | 27,0      |      |
|                                  | Humidifier                        | kW                              | 2,25              | 2,25     | 2,25     | 2,25     | 6        | 11,25     |      |

(1) Return temperature 24°C, relative humidity 45% and atmospheric pressure 101,3kPa

(2) Considering maximum pressure loss of 250Pa in the installation

(3) Sound pressure at 2 meters from the source

(4) Operating power

# Technical Support

Our objective is to simplify your day-to-day

We provide services  
**ALL OVER**  
Latin America!



Gilmar Moreira - Technician since 1983  
Weverton Santos - Técnico since 2012

Own team

Monitoring of the visits in real time

80% of the calls solved in the first visit

Qualified technicians with more than 15 years of experience

## Customer Satisfaction



We monitor the satisfaction of our customers from sale to the end of the equipment's useful life and take action whenever necessary, through our Active Listening Program

**We only rest when we deliver the best!**



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