

CPM  
klimatix



# Who are we?

We were born with the purpose of bringing innovative solutions to the HVAC market that go beyond the conventional.

Our heritage includes the tradition and expertise of the Mecalor Group, founded in 1960.

The technical experience accumulated over decades gives us solidity in the development of competitive, high-quality products.

Individualized service, from the quotation to after-sales service, is another consolidated differential of the new brand.

The pursuit of international excellence is a determining factor in the motivation of the team, which is eager to exceed your expectations. Be amazed by our dedication.

Welcome to Klimatix, where your project is a priority.

**klimatix**

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

CPM | Klimatix

# Precision Air Conditioner

Direct self expansion with remote condenser

# CPM



MODEL CPM 10

Capacity 7 kW, 10 kW  
and 17 kW



MODEL UR 17





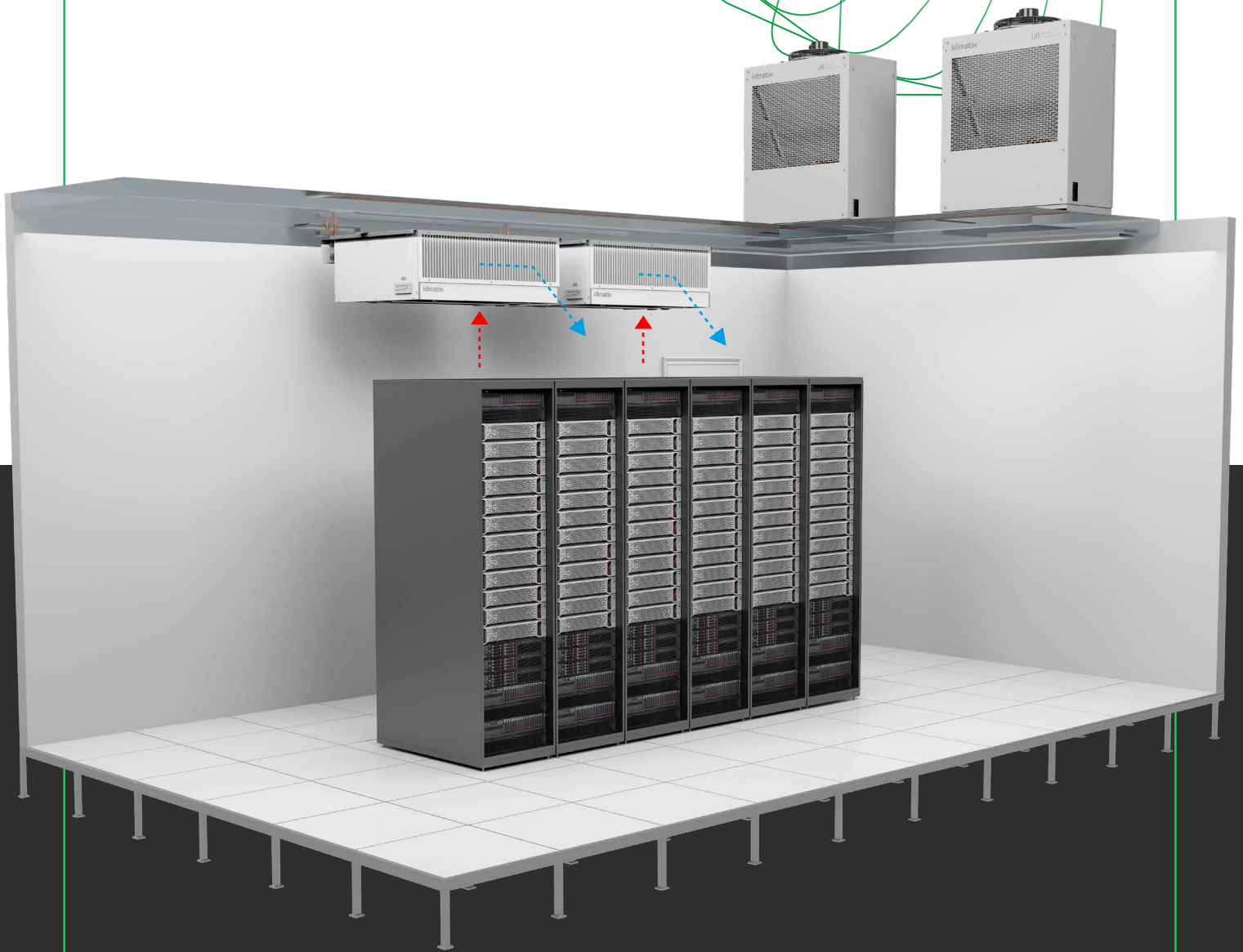
## Application

Air conditioning for critical mission data centers, UPS rooms and communication centers.

## Benefits

- Compact equipment
- Reliable operation 24/7
- Easy maintenance access
- Very high energy efficiency
- Precise temperature and humidity control
- Ideal technology for great thermal load variations
- Low noise and automatic fan speed adjustment
- Wide range of optional configurations
- High performance EC fans
- Vertical (wall) or horizontal (ceiling) installation according to the needs of the customer

System  
designed  
for high  
efficiency



- Return
- Insufflation

# Nomenclature – CPM / UR

**CPM – 10 – UR – 220 \***

Precision Air Conditioner

Nominal Capacity: 7, 10 or 17 kw

1<sup>st</sup> Digit { O: no humidifier  
U: humidifier (vapor generator)

2<sup>nd</sup> Digit { O: no reheating  
R: reheating (electrical resistance)

Configurations:

/M: Air filter M5

/S: SNMP Communication

/T: HMI Touchscreen

/D: Differential pressure switch

/N: BACNET Communication

\*: Frequency of operation: 50Hz

Standard Voltage of the CPM: 1 F, 220 V, 60 Hz

**UR – 10 – REF – 220 \***

Remote Condenser Unit

Nominal Capacity: 7, 10 or 17 kw

1<sup>st</sup> Digit { O: no liquid tank  
R: liquid tank

2<sup>nd</sup> Digit { O: no e-coating treatment  
E: e-coating treatment

3<sup>rd</sup> Digit { F: Fixed compressor  
V: Compressor + frequency inverter

Configurations:

/G: Air filter G0

\*: Frequency of operation: 50Hz

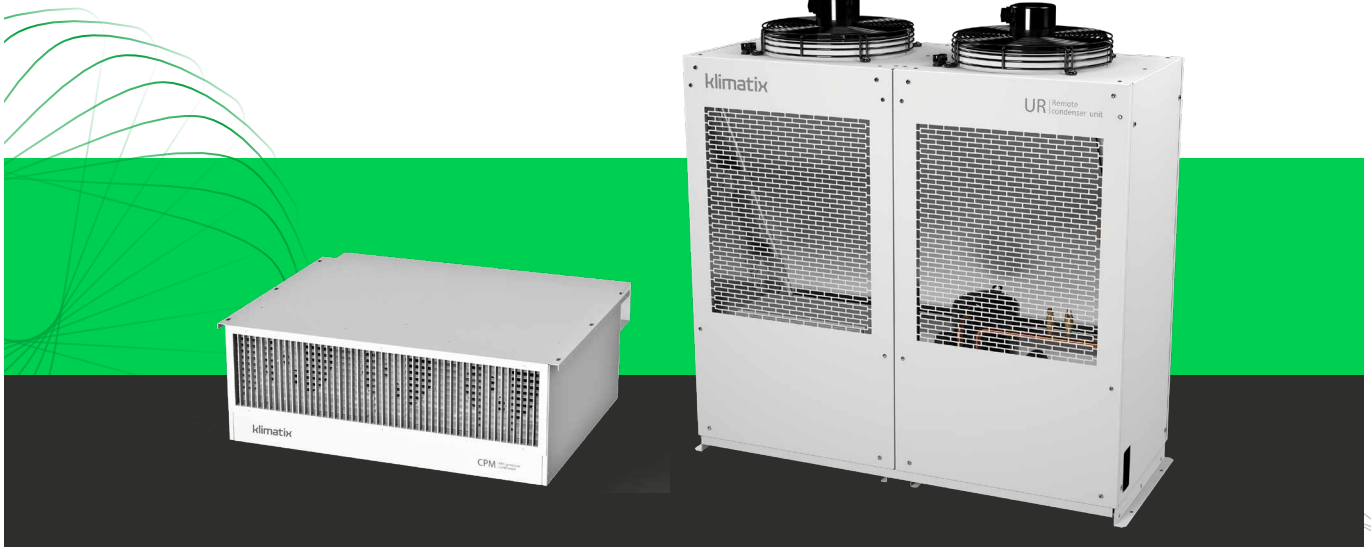
Standard Voltage of the UR

3-phase, 220 V, 60 Hz

3-phase, 380 V, 60 Hz

3-phase, 440 V, 60 Hz

Special Voltage – E.g.: 400 V, 480 V, etc.

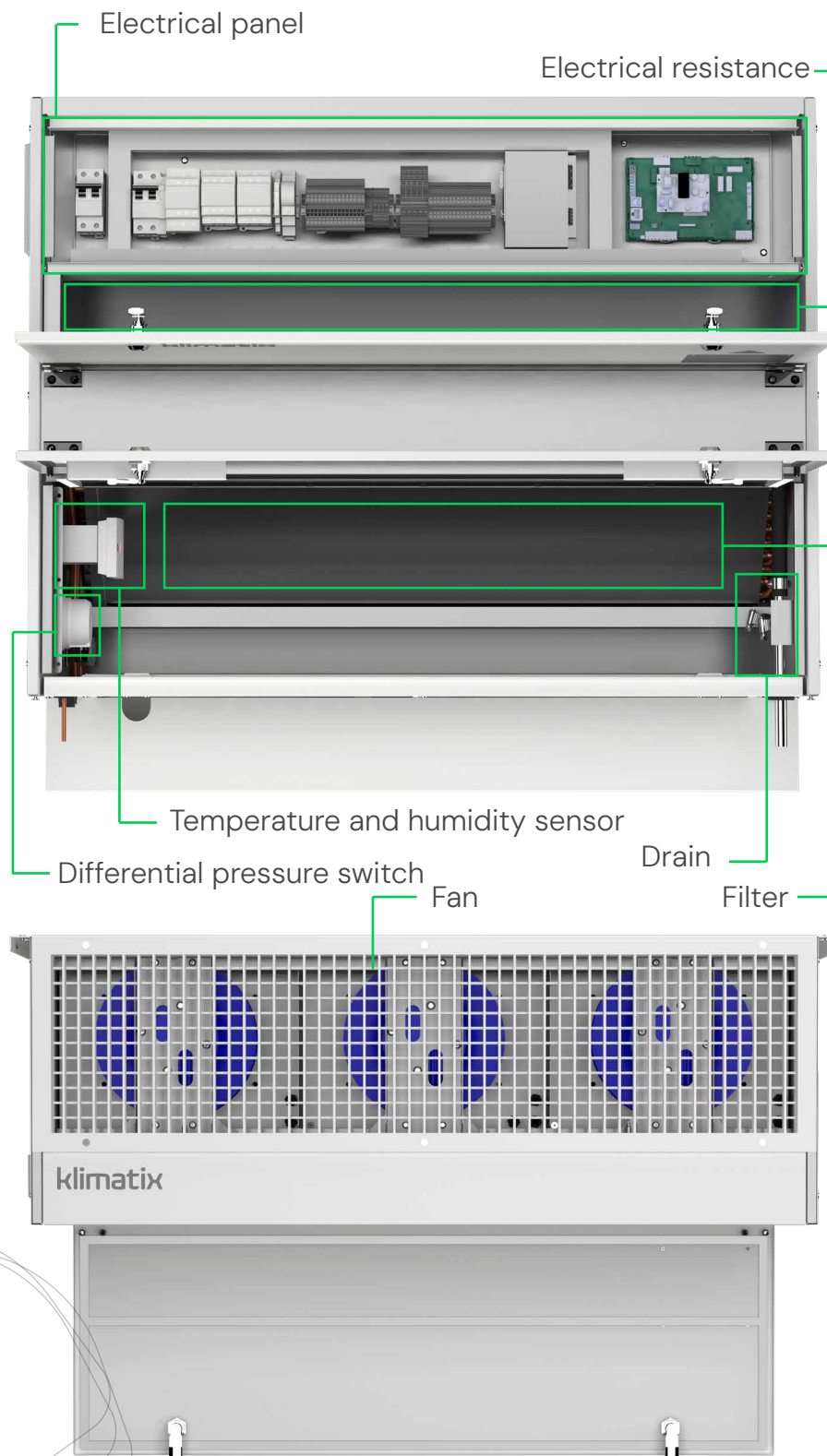


# Technical Description

The air conditioners of the CPM line are compact equipment designed for application in mission-critical environments with high sensible heat factor for temperature, relative humidity and air quality control. Designed for continuous, reliable, and long-lasting operation. With control of precise temperature and humidity control, low power consumption,

and low noise level. Optimized airflow by applying CFD tools for maximum efficiency, low power consumption and fans with EC-technology engines.

The CPM evaporator unit can be installed in either a vertical or horizontal position.



## • Control Technology

Three models with nominal capacities of 7, 10, and 17 kW.

Network communication with up to 254 devices grouped into air conditioning zones with 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 accessed through semi-graphic HMI.

Easy access to all equipment components for maintenance, where the CPM unit has access doors at the bottom and the UR unit has front access.

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

## • Ventilation

Radial fans with high efficiency EC-type electric engine on the evaporators, with proportional air flow control according to the operating condition. In the condensers, single-phase axial fans with speed controllers are used, allowing precise control of condensing conditions.

## • Refrigeration

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

Operating temperature setting between 20°C and 35°C and relative humidity between 30% and 70% and temperature control.

A cooling circuit with scroll compressor, optionally supplied with frequency inverter, allowing in this configuration an adjustment from 50% to 100% of the installed capacity of the equipment.

Cooling circuit with block valves in the refrigerant inlet and outlet lines, liquid display, filter drier, check valve in the compressor discharge and electronic expansion valve.

Direct expansion with remote air condenser and refrigerant R410A.

## • Others

Cabinet manufactured in galvanized carbon steel and electrostatic painting in white RAL 9003 color.

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

Filtering class G4 according to NBR16101 and differential pressure switch for indication of dirty filter and automatic adjustment of flow to compensate obstruction



# Optional Configurations

## REHEATING

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

## FILTER

Class M5 filter according to NBR 16101:2012.

## HMI TOUCHSCREEN

4,3" colored HMI PGDX Touchscreen.

## HUMIDIFIER

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

## COMMUNICATION

SNMP, BACNET Protocols, others on request.



# Technical data

	Description	Unit	Model		
			CPM - 7	CPM - 10	CPM - 17
Operating conditions	<b>Evaporator unit</b>				
	Total capacity (1)	kW	6.3	10.0	16.7
	Sensible capacity	kW	6.1	9.4	15.0
	Useful capacity	kW	5.8	9.4	15.0
	EER Efficiency (CPM + UR)	-	2.368	2.380	2.667
	Fator de calor sensível	-	0.97	0.94	0.90
	Sensible heat factor	-	Horizontal / Vertical		
	Nominal flow rate	m <sup>3</sup> /h	2000	3000	4000
	Maximum static pressure available	Pa	70	70	120
	Potência específica ventilador (SFP) (1)	W/(m <sup>3</sup> /s)	605	605	506
	Cooling circuits	-	1	1	1
	Filtering class	-	G4		
	Downflow sound pressure (2)	dBA	61	62	71
	Refrigerant load (1)	kg	0.6	1.0	1.6
	Dimensional	Width	mm	860	1050
Depth		mm	940	940	1160
Height		mm	385	385	480
Occupied area		m <sup>2</sup>	0.81	0.99	1.25
Weight		kg	85	105	140
Maintenance		-	Frontal / Traseira / Inferior		
Maintenance access		mm	600		
Inlet connection diameter		in	3/8	1/2	1/2
Outlet connection diameter		in	5/8	3/4	7/8
Remote condenser			<b>UR-7</b>	<b>UR-10</b>	<b>UR-17</b>
	Air supply direction	-	Vertical		
	Nominal flow rate	m <sup>3</sup> /h	3250	3500	6500
	Maximum static pressure available	Pa	10	10	10
	Specific fan power (SFP) (1)	W/(m <sup>3</sup> /s)	443	387	443
	Sound pressure (2)	dBA	64	64	67
	Refrigerant load (1)	kg	0.5	0.9	1.1
Dimensional	Width	mm	800	950	1250
	Profundidade	mm	510	510	510
	Height	mm	1300	1300	1300
	Weight	kg	110	140	185
	Maintenance		Frontal		
	Maintenance access	mm	600		
	Inlet connection diameter	in	5/8	3/4	7/8
Outlet connection diameter	in	3/8	1/2	1/2	
Refrigeration installation	Maximum equivalent length (3)	m	30		
	Max. level difference (evaporator below condenser) (3)	m	17		
	Max. level difference (evaporator above condenser) (3)	m	5		
Power	Rated evaporator power (1)	kW	0.6	0.7	0.8
	Nominal condenser power (1)	kW	2.1	3.5	5.5
	Maximum evaporator power (1)	kW	0.6	0.8	1.2
	Maximum condenser power (1)	kW	3.1	4.8	7.8
	Reheating resistor	kW	3.0	3.0	4.5
	Humidifier	kW	2.25	2.25	2.25

(1) Return temperature 24°C, relative humidity 45% and atmospheric pressure 101.3kPa; Ambient temperature 35°C; Leq. 15 meters

(2) Sound pressure at 2 meters from the source

(3) Consult manufacturer for other measurements

# Technical Support

Our goal is to simplify your everyday life



We serve  
all of  
Latin America!

Free lifetime support in the  
service channels

Stock and supply of  
original parts

Workshop car with high  
quality tools

Punctuality in  
scheduled visits

90% of calls resolved  
over the phone

Own team

Monitoring of the visits  
in real time

80% of calls resolved on the  
first visit

Qualified technicians with more  
than 15 years of experience

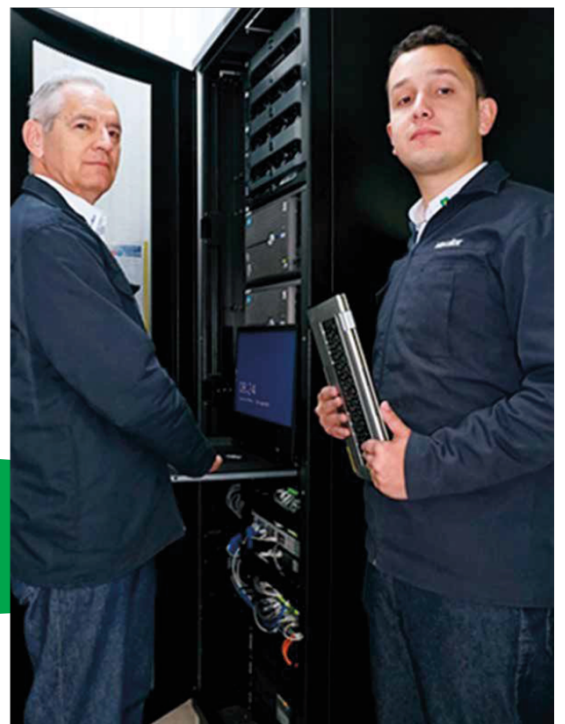
## Customer satisfaction

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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Gilmar Moreira  
Technician since 1983  
Weverton Santos  
Technician since 2012



The information in this catalog is subject to change  
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+55 11. 2188.1700  
[www.klimatix.com](http://www.klimatix.com)