



CPM

klimatix



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Klimatix is the HVAC (Heating, Ventilation and 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

Precision Air Conditioner

Direct self expansion with remote condenser

CPM



MODEL CPM 10

Capacity of 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
- > Air Supply

Nomenclature - CPM / UR

CPM - 10 - UR - 220 *

Precision Air Conditioner

Nominal Capacity: 7, 10 or 17 kw

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

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

Configurations:
/M: Air filter M5
/S: SNMP Communication
/T: Touchscreen MMI
/D: Differential pressure switch
/N: BACNET Communication

*: Frequency: 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

1st Digit { 0: no liquid tank
R: liquid tank

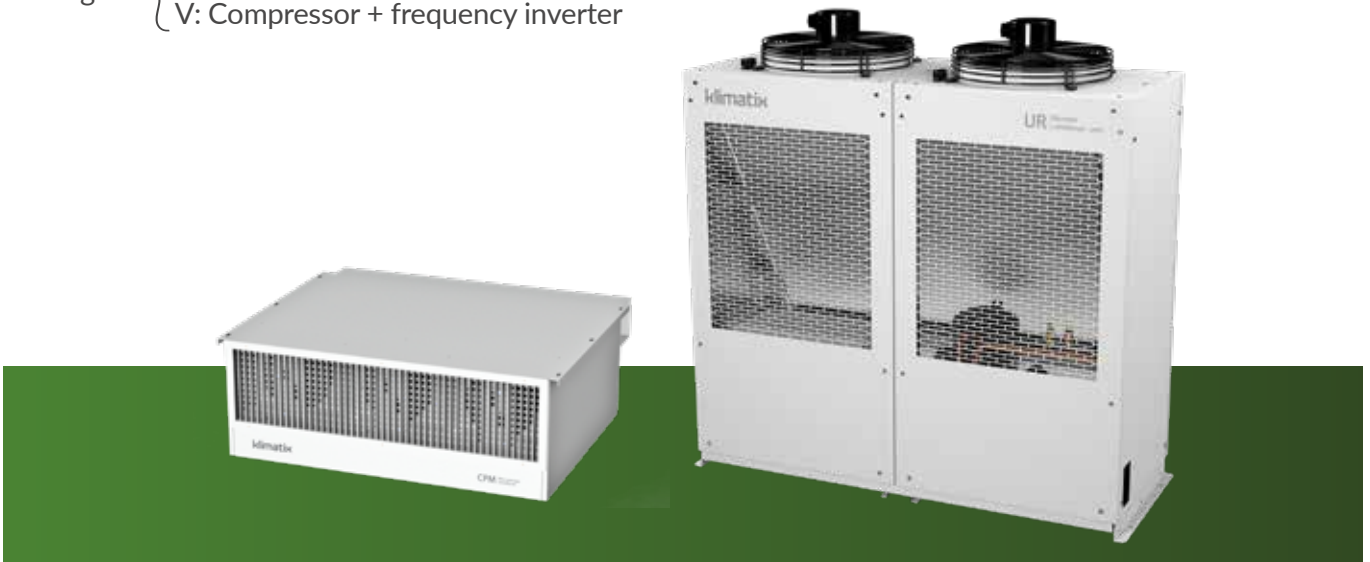
2nd Digit { 0: no e-coating treatment
E: e-coating treatment

3rd Digit { F: Fix 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.

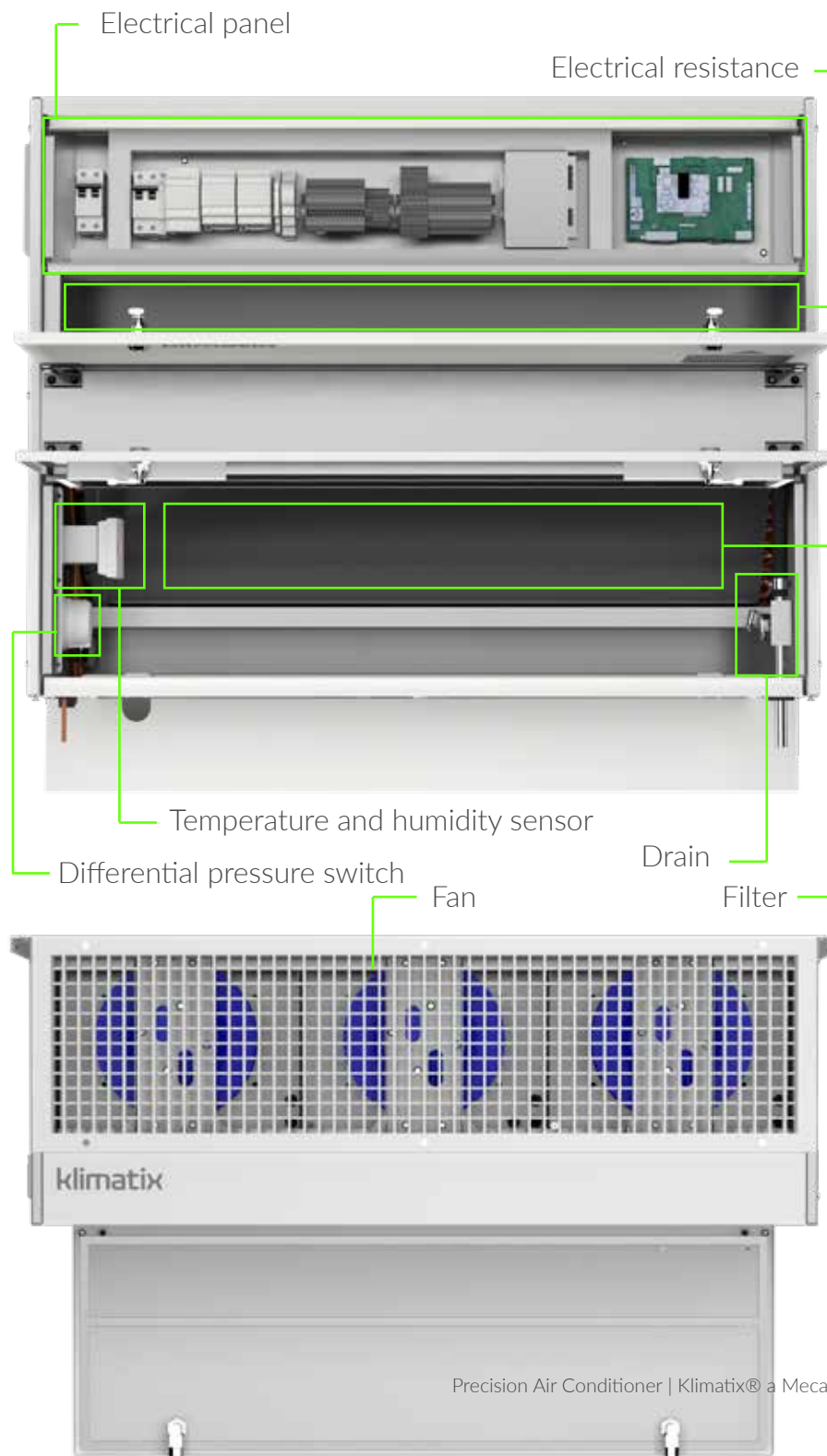


Technical Description

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

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

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 MMI.

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 motor 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.

● Cooling

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

Operation temperature adjustment between 20°C to 35°C and relative humidity between 30% to 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 on the refrigerant inlet and outlet lines, display for liquid filter drier, check valve on 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 motor assembled 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 clogging.

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.

FILTER

Class M5 filter according to NBR 16101:2012.

COMMUNICATION

SNMP, BACNET Protocols, others on request

IHM TOUCHSCREEN

4.3" colored HMI PGDX Touchscreen.



Technical Data

	Description	Unit	Model		
	Evaporating unit		CPM - 7	CPM - 10	CPM - 17
Operating conditions	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
	Efficiency EER (CPM + UR)	-	2,368	2,380	2,667
	Sensible heat factor	-	0,97	0,94	0,90
	Direction of air insufflation	-	Horizontal / Vertical		
	Nominal flow rate	m ³ /h	2000	3000	4000
	Maximum static pressure available	Pa	70	70	120
	Specific fan power (SFP) (1)	W/(m ³ /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 ²	0,81	0,99	1,25
Weight		kg	85	105	140
Maintenance		-	Front / Rear / Bottom		
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		UR-7	UR-10
Operating conditions	Direction of air insufflation	-	Vertical		
	Nominal flow rate	m ³ /h	3250	3500	6500
	Maximum static pressure available	Pa	10	10	10
	Specific fan power (SFP) (1)	W/(m ³ /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
	Depth	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
Refrigerated plant 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 rating	Nominal 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 35°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) Other measurements consult manufacturer

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 - Technician 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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+55 11. 2188.1700
www.klimatix.com

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