

minipac

PACKAGED AIR CONDITIONERS WITH FREE-COOLING SYSTEM FOR TELECOMMUNICATIONS





GENERAL FEATURES

The MINIPAC air conditioners are specially designed for small telephone rooms and shelters for mobile telecommunications.

Packaged units, suitable for outdoor installation, equipped with double electrical feeding system, net + UPS.

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* The proportional Free-Cooling system

For a further energy-saving, the air conditioners are equipped with a proportional automatic free-cooling system in order to obtain free cooling when the indoor temperature is higher than outdoor one.

Practically the fresh air is used as a refrigerant in order to cool the ambient, when the outside conditions allow it.

The cooling system is totally proportional and allows three working modes:

- total free-cooling: only fresh air is used to cool the ambient;
- partial free-cooling: the fresh air is used for a pre-cooling and the compressor or the chilled water are used to balance the load;
- mechanical cooling: the compressor or the chilled water are used to cool the ambient

VERSIONS :

DX (R407C)

Cooling capacity 4,5 ÷ 20,5 kW

Packaged air conditioners with direct free-cooling system for outdoor installation

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MAIN COMPONENTS

- Housing and panels in epoxy painted galvanized steel sheet.
- Supply fan directly coupled to brushless type electric motor
- Rotary or Scroll compressor
- Direct free-cooling system
- Electrical box in separate compartment
- Main switch with door lock safety
- MP.COMxs microprocessor control
- Double power supply (network + UPS)

MAIN OPTIONAL ACCESSORIES

- Serial port
- Remote control panel
- Electric heater
- Wall mounting brackets

MINIPAC air conditioners are available in Over version only.

Upflow air delivery (Over)

The air distribution is from the top of the unit directly in to the room.

The air is injected into the room at a low temperature but at high speed in correspondence to the corridors between the different racks rows. The cold air moves from the top to the bottom with a turbulent flow, mixing with the hot air outgoing from the racks.

Nocturne working mode

The proprietary software foresees unit working with the lowest noise emission during the night.

* Double power supply

The double power supply system, network + UPS (+230V / +48VDC), is conceived to grant working continuity even during black-out periods.



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TECHNICAL DATA AND NOMINAL PERFORMANCES



MINIPAC.DX.A over

MODEL		4 R1	5 R1	6 Z1	8 Z1	9 Z1	11 Z1	13 Z1	16 Z1	20 Z1
Size		S0	S1	S1	S1/S	S1/S	S2	S2	S3	S3
Cooling capacity (1)	kW	4,5	5,6	6,4	8,9	10,0	12,1	12,9	17,4	20,5
Air flow	m ³ /h	1100	1750	1750	2200	2200	3200	3700	4300	5000
Compressors	n.	1	1	1	1	1	1	1	1	1
Weight	kg	135	155	165	195	200	220	235	270	290
Sound pressure (2)	dB(A)	54,0	52,0	57,0	57,0	62,0	58,0	58,0	58,0	64,0

(1) Referred to entering air at 30°C with 40% RH and outdoor air temperature 35°C

(2) Sound pressure 1m far in free field according to ISO3744 norm.

POWER SUPPLY models 4.R1 - 5.R1 - 6.Z1 - 8.Z1 - 9.Z1: 230.1.50 + 48VDC

models 11.Z1 - 13.Z1 - 16.Z1 - 20.Z1: 400.3.50+N + 48VDC

DIMENSIONS (mm)

Size	a	b	c
S0	660	500	1.303
S1	831	535	1.500
S1S	903	620	1.760
S2	1.000	700	2.004
S3	1.000	700	2.352

