

ENERGY split

SPLIT-SYSTEM AIR CONDITIONERS WITH FREE-COOLING SYSTEM FOR TELECOMMUNICATIONS





energy.split.dix/

GENERAL FEATURES

The air conditioners of the **ENERGY-SPLIT** series are suitable for installation in small telephone rooms and shelters for mobile telecommunications

They are split-system units and are equipped with double electrical feeding system, net + UPS.

* 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 4,3 ÷ 15,7 kW

Split-system air conditioners with direct free-cooling system

The **ENERGY-SPLIT** evaporating unit can be installed on a wall with vertical air flow, or on ceiling with horizontal air flow.

Horizontal or vertical air flow

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.

MAIN COMPONENTS

CONDENSING UNIT (outdoor)

- Housing in epoxy painted galvanized steel sheet.
- Axial fan directly coupled to electric motor and safety grille.
- Rotary or scroll compressor
- Electrical box in separate compartment

EVAPORATING UNIT (indoor)

- Housing in epoxy painted galvanized steel sheet
- Supply fan directly coupled to brushless type electric motor
- Direct free-cooling system
- Electrical box in separate compartment
- MP.COMxs microprocessor control
- Double power supply (network + UPS)

MAIN OPTIONAL ACCESSORIES

- serial port
- remote control panel
- electric heater

Direct free-cooling system

The proportional direct free-cooling system, fully managed by the microprocessor, allows a dramatic reduction of the compressor working hours and electrical consumption.

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.



Evaporating unit

TECHNICAL DATA AND NOMINAL PERFORMANCES

ENERGY.SPLIT.DX.A evaporating unit

MODEL		4	5	6	7	8	10	13	15
		Z1	Z1	Z1	Z1	Z1	Z1	Z1	Z1
Size		S0	S0	S0	S1	S1	S1	S2	S2
Cooling capacity (1)	kW	4,3	5,4	6,2	7,2	9,8	11,6	12,9	15,7
Air flow	m ³ /h	1400	1400	1400	2000	2400	2800	3500	3900
Weight	kg	55	65	70	70	75	95	98	105
Sound pressure (2)	dB(A)	55,0	55,0	55,0	54,0	57,5	61,0	63,0	65,0

ENERGY.SPLIT.DX.A condensing unit

MODEL		4	5	6	7	8	10	13	15
		Z1	Z1	Z1	Z1	Z1	Z1	Z1	Z1
Compressors	n.	1	1	1	1	1	1	1	1
Weight	kg	65	70	70	70	75	95	98	105
Sound pressure (2)	dB(A)	49	50	53	54	54	56	56	58

(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.Z1 - 5.Z1 - 6.Z1 - 7.Z1 - 8.Z1: 230.1.50 + 48VDC
models 10.Z1 - 13.Z1 - 15.Z1: 400.3.50+N + 48VDC

DIMENSIONS (mm)

EVAPORATING UNIT (INDOOR)

Size	a	b	c
S0	1.171	784	294
S1	1.293	953	361
S2	1.349	1.380	392

CONDENSING UNIT (OUTDOOR)

Size	a	b	c
4.R1 ÷ 5.R1	805	326	669
6.Z1 ÷ 8.Z1	1.048	415	830
10.Z1 ÷ 15.Z1	1.307	535	890

