TECHNICAL SELECTION

s-MEXT-G02-M1 DX F01 O 006 S

FULL INVERTER air conditioning split-system for IT Cooling.

R HFC R-410A

SCROLL

Model		s-MEXT-G02-M1 DX F01 O 006 S
Version		O
Frame		F01
Primary circuit type		DIRECT EXPANSION AIR COOLED
No. Circuits	N°	1
Refrigerant		R410A

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1.1 Unit Description

The full-inverter air conditioning split-system for small Data Centre, UPS rooms, Batteries rooms, Distribution rooms and all areas of the Data Center needing IT Cooling.
The “state of the art” in components granting high reliability and close control in temperature following the trend of the thermal load thanks to the BLDC inverter compressor.
The constructive solutions and the internal lay-out allow high application flexibility and the frontal access to the main components for inspection and routine maintenance.
The extreme flexibility allows top installation that adapts perfectly to every requirement of the plant with 2 types of air supply for the indoor unit.
The system has been designed for a quick and easy setting up.
The installation requires only electrical and refrigerant connections.
Suitable for matching to Mr Slim R410A and Mr Slim R32.
A set of accessories allows to control the room temperature even in heating by electric heaters and, if necessary, also the humidity control by a modulating steam humidifier.

1.2 Versions

OVER

Upflow air supply

UNDER

Downflow air supply

1.3 Plus (only descr)

Base and frame in galvanized steel, painted with epoxy powders. Panels in galvanized steel sheet with protective surfaces treatment in compliance with UNI ISO 9227/ASTMB117 and ISO 7253, insulated with polyurethane foam protective film; fire resistance HF1 – UL94. Colour RAL 7016 hammered.

Finned pack evaporating coil with internally corrugated copper tubes and high efficiency aluminium fins. Finned pack with hydrophilic treatment that assure the condensate water drop, high thermal conductivity and does not favour the growth of micro-organisms.

Centrifugal fans with backward curved blades with wing profile, single inlet without scroll housings (Plug-fans) with impeller in aluminium or in composite material exempt from rust formation. Directly driven brushless type synchronous EC motor with integrated electronic commutated system. Fans speed control with proportional signal 0-10V.

Electrical panel in compliance with EN60204-1 including the interface card (PAC-IF) for connection to condensing outdoor unit Mr. Slim.

Microprocessor system to control and monitor the cooling capacity supply and the alarm status. Operating and safety logic for systems with R410A or R32 refrigerant

1.4 Controls

EVOLUTION

Microprocessor control system with graphic display for control and monitor of operating and alarms status. The system includes: built-in clock for alarms date and time displaying and storing, built-in memory for the storing of the intervened events, main components hour-meter, non-volatile “Flash” memory for data storage in case of power supply faulty. Menu with protection password. LAN network. Provision for connectivity cards housing.

2.1 INDOOR UNIT

MAIN CIRCUIT		
DESIGN CONDITIONS		
Dry bulb temperature	°C	27.0
Relative humidity	%	47
Altitude	m	0
Air flow	m³/h	2235
ESP External Static Pressure	Pa	20
Outdoor air temperature	°C	35.0
Pipes length	m	5.0
Coil working pressure		-
PERFORMANCE AT DESIGN CONDITIONS		
Total cooling capacity gross	kW	6.56
Sensible cooling capacity gross	kW	6.56
Net cooling capacity	kW	6.24
Net sensible cooling capacity	kW	6.24
SHR		1.00
EER total	kW/kW	4.43
Leaving air temperature	°C	18.7
Leaving air relative humidity	%	78
Effective heat exchange area		-

FANS		
Fans type		EC BASIC
Quantity	N°	1
Air flow	m³/h	2235
Fans power input	kW	0.32
SPF (Specific Power Factor)	W / l/s	0.51

ACCESSORIES		
FILTERS		
Accessory filter type		COARSE 60% (ISO EN 16890)
ELECTRICAL HEATER		
Heater description		Basic heater 2.6 kW
Quantity	N°	1
Steps	N°	2
Eletrical power abs.	kW	2.60
Max absorbed current (FLA)	A	11.4
Power supply	V/ph/Hz	230/1/60

The performance shown are obtained from theoretical calculations and tolerances will apply.Rpt.version:1.0.7.0

NOISE DATA										
Spectrum	Hz	63	125	250	500	1000	2000	4000	8000	Tot
		dB	dB	dB	dB	dB	dB	dB	dB	dB(A)
Sound Power		73	71	71	72	67	62	61	57	73
Total sound Pressure		57	55	55	56	51	46	45	41	57
Distance	m					1				
Note										
Note		Average sound pressure level, at 1 m distance, unit in a free field on a reflective surface according to ISO3744. Non-binding value obtained from the sound power level.								

WEIGHT & DIMENSIONS		
A	mm	600
B	mm	500
H	mm	1980
Weight	kg	111

ELECTRICAL DATA (refer to indoor unit)		
Power supply	V/ph/Hz	208-230/1/60
Max Electrical power absorbed (FLI)	kW	3.08
Max absorbed current (FLA)	A	13.8
Max inrush current (SA)	A	2.00
Power input (OI)	kW	0.32

2.2 OUTDOOR UNIT

GENERAL DATA		
Code		PUY-A24NHA7
Quantity	N°	1

FANS		
Fans Type		
Quantity	N°	1
Fans power input	kW	0.09
Air flow for fan	m³/h	3300

COMPRESSORS		
Compressor type		SCROLL
Compressors nr.	N°	1
Compressors power absorption	kW	1.08

The performance shown are obtained from theoretical calculations and tolerances will apply.Rpt.version:1.0.7.0

NOISE DATA										
Spectrum	Hz	63	125	250	500	1000	2000	4000	8000	Tot
		dB	dB	dB	dB	dB	dB	dB	dB	dB(A)
Sound Power		-	-	-	-	-	-	-	-	61
Total sound Pressure		-	-	-	-	-	-	-	-	47
Distance	m					1				
Note										
Note		Average sound pressure level, at 1 m distance, unit in a free field on a reflective surface according to ISO3744. Non-binding value obtained from the sound power level.								

WEIGHT & DIMENSIONS		
Dimension A	mm	950
Dimension B	mm	360
Dimension H	mm	943
Weight	kg	68

ELECTRICAL DATA (refer to outdoor unit)		
Power supply	V/ph/Hz	208-230/1/60
Max eletrical power absorbed (FLI)	kW	1.67
Max absorbed current (FLA)	A	19.0
Max inrush current (SA)	A	11.0
Power input (OI)	kW	1.17

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