Quick and easy installation

The construction features and the unit layout have been designed to ensure quick installation and facilitate front access for easy maintenance activity.

New EC inverter fan

High performance EC fan ensures a perfect modulation of air flow for partial loads. Made of ultra-light polymeric material, this fan is distinguished by:
- Sound level reduction by 4-5 dB(A);
- Reduction of 25% of power consumption, compared to traditional solutions.

Advanced Control System

Control System is the heart of the unit. Designed for monitoring and to operate the fuctional and environmetnal single unit's parameters. The Control System allows:
- Automatic reset after power failures;
- Serial interconnection with most modern BMS systems;
- up to 100 events recording;
- "Non-volatile" data storage for saving files;

Via simple and intuitive graphic display.

INVERTER EEV EC FAN R HFC R410A R HFC R32

Technical specifications

MODEL			006	009	013	022	038	044
	Outdoor unit	n°	1	1	1	1	2	2
	Model	PUHZ-ZRP	60 VHA2	100 VKA3	125 YKA3	250 YKA3	200 YKA3	250 YKA3
		PUHZ-ZM	60 VHA	100 VKA	125 YKA	250 YKA	200 YKA	250 YKA
Cooling (1)	Cooling capacity	kW	6,79	10,1	11,9	22,5	38,8	42,4
	Sensible	kW	6,28	9,0	10,3	19,5	34,0	37,5
	SHR (2)		0,92	0,89	0,87	0,87	0,88	0,88
	System EER (nominal) 27°C - 47% RH		3,92	3,98	2,97	2,87	3,15	2,59
	SUPPLY FAN	n°	1	1	1	2	1	1
	Air flow	m³/h	2000	2500	2800	5000	8800	10000
	Nominal external static pressure	Pa	20	20	20	20	20	20
	Maximum external static pressure	Pa	200	25	45	25	125	25
	Power input (3)	kW	0,21	0,37	0,52	0,74	1,43	2,10
	Absorbed current (3)	A	0,93	1,64	3,23	3,28	2,20	3,22
	Starting current	A	0,5	0,5	0,5	0,5	0,5	0,5
	Plate current	A	2,3	2,3	3,15	4,6	4,2	4,2
Electrical panel	Power input	kW	0,14	0,14	0,14	0,14	0,14	0,14
Sound level (ISO 3744) (4)	Pressure level	dB(A)	53	57	61	60	63	67
	Power level	dB(A)	69	73	77	76	79	83
	AIR FILTERS	n°	1	1	1	2	4	4
	Extended filtering surface	m²	0,68	0,68	0,68	1,05	1,76	1,76
	Efficiency (ISO EN 16890)	COARSE	60%	60%	60%	60%	60%	60%
	REFRIGERANT CIRCUITS	n°	1	1	1	1	2	2
	POWER SUPPLY	V/Ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	400/3+N/50	400/3+N/50
Dimensions	Length	mm	600	600	600	1000	1000	1000
	Depth	mm	500	500	500	500	890	890
	Height	mm	1980	1980	1980	1980	1980	1980
	NET WEIGHT Over	kg	103	115	115	185	297	297
	NET WEIGHT Under	kg	103	115	115	185	297	297
Connections	Refrigerant pipes: Gas - Liquid	Ø Inch	5/8" - 3/8"	5/8" - 3/8"	5/8" - 3/8"	1" - 1/2"	1" - 3/8"	1" - 1/2"
	Condensate (5)	Ø mm	19	19	19	19	19	19
	Power supply wiring cable (6)	n° x mm²	3G1.5	3G1.5	3G1.5	3G1.5	4G1.5	4G1.5

Notes:
THE COOLINC CAPACITY DOES NOT CONSIDER THE SUPPLY FAN MOTOR THERMAL LOAD
(1) Gross value. Characteristics referred to entering air at 27°C-47% RH; Ambient temperature 35°C; ESP=20Pa; Connection pipes length 5m;
(2) SHR= Sensible cooling capacity / Total cooling capacity.
(3) Corresponding to the nominal ESP=20Pa.
(4) Sound pressure level on air return at 1m .
(5) Rubber pipe-referred to internal diameter.
(6) Minimum section.
These units contain <HFC R410A [GWP_{100} 2088]> fluorinated greenhouse gas.
These units contain <HFC R32 [GWP_{100} 675]> fluorinated greenhouse gas.

Technologies and Functions

Mr.Slim presents excellent performances in all loading conditions thanks to the sophisticated power inverter technology with advanced features:
- "Rotation and Backup" function for automatic switching on a second unit in case of first unit block.
- "Easy and fast maintenance" function and authomatic monitoring of the refrigerant status.

Linear Expansion Valve (LEV)

The Mr.Slim linear expansion valve (LEV) allows precise regulation of the refrigerant flow, optimizing the compressor's performances.
- Fast achievement of system stability.
- Quick adaptation to load fluctuations.

Scroll Inverter compressor

Full inverter technology applied to the compressor allows continuous modulation of the cooling capacity according to the real needs of the servers.
In this way the rotation speed is continuously modulated helping to significantly increase the efficiency for partial loads.
- Elimination of inrush currents;
- Energy consumption reduction for 25%, compared to traditional ON/OFF technology;
- Maximum reliability thanks to continuous modulation without annoying ON/OFF cycles.

Technical specifications

OUTDOOR UNIT			PUHZ-ZM 60VHA	PUHZ-ZM 100VKA	PUHZ-ZM 125YKA	PUHZ-ZM 250YKA	PUHZ-ZM 200YKA	PUHZ-ZM 250YKA
	Indoor unit model		006	009	013	022	038	044
	Outdoor unit to be coupled to the indoor	n°	1	1	1	1	2	2
	COMPRESSOR	n°	1	1	1	1	1	1
	Power INPUT	kW	1,19	1,88	2,82	6,01	4,33	6,01
	Refrigerant charge	kg	2,8	4	4	7,7	7,1	7,7
	CONDENSER FAN	n°	1	2	2	2	2	2
	Air flow	m³/h	3300	6600	7200	8400	8400	8400
	Power input	kW	0,06	0,06	0,06	0,2	0,2	0,2
Dimensions	Lenght	mm	950	1050	1050	1050	1050	1050
	Depth	mm	355	370	370	370	370	370
	Height	mm	943	1338	1338	1338	1338	1338
	NET WEIGHT	kg	70	116	125	135	135	135

Notes:
(1) Characteristics referred to ambient temperature 35°C – indoor air condition 27°C-47% UR - Connection pipes length 5m;
(2) Sound pressure level on unit front at 1m.
(3) Minimum section.
(4) For standard refrigerent charge.
(5) With additional refrigerant charge.
(*) Data are referred to single outdoor unit.
(+) from 71 to 100 m please refer to Mr Slim O&M Manual.
These units contain <HFC R32 [GWP_{100} 675]> fluorinated greenhouse gas.