MITSUBISHI ELECTRIC HYDRONICS & IT COOLING SYSTEMS S.p.A.

COMFORT

AIR HANDLING UNITS





WIZARDX

WIZARDX INNOVATIVE READY TO USE SOLUTION FOR THE FRESH AIR TREATMENT



UNIT FOR THE TREATMENT AND RENEWAL OF OUTDOOR AIR FROM 3000 TO 20000 m³/h

WIZARDX are units for the treatment of fresh outdoor air, characterized by innovative enthalpy rotary heat recovery and low energy consumption fans

Thanks to the use of the PAC-IF 013 card the unit is perfectly matched to the external direct expansion unit, Mr. Slim, managing its operation to maximum efficiency even in the presence of complex systems with multiple external units.

IDEAL APPLICATIONS

- ▶ Offices
- ▶ Independent shops
- ▶ Museums and theaters
- ▶ Sport centers

FUNCTIONS

- C-OU Fresh airt treatment with neutral conditions only
- **B-OU** Fresh air treatment with powered coil for better dehumidification
- E-OU Fresh air treatment with neutral conditions only and multi-circuit direct expansion coil.



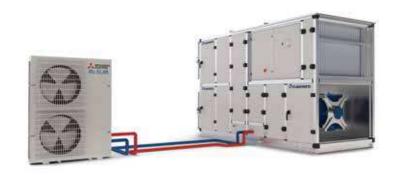




WIZARDX COMBINATION AND EXTENSIVE UNITS

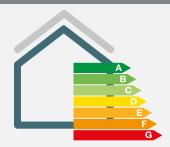
WIZARDX was designed to work in conjunction with Mr. Slim heat pumps.

Managed by the advanced logic of the PAC-IF 013 card installed inside the electrical panel, WIZARDX is able to communicate simultaneously with multiple Mr. Slim units in the Standard Inverter version and Mr. Slim units in the Power Inverter version.



WIZARDX is the new Climaveneta brand air treatment unit that combines excellent energy performance with high configurability. Features that make this solution ideal for combining with Mr. Slim heat pumps.

HIGH EFFICIENCY IN THE THERMAL EXCHANGE



The use of rotary recovery systems combined with the direct expansion technology allows heat exchanges with high levels of efficiency. The use of the outdoor unit Mr. Slim, equipped with an inverter, further contributes to minimizing energy consumption.

PERFECT INTEGRATION WITH DIRECT EXPANSION SYSTEMS



WIZARDX has been designed to work in perfect synergy with Mr. Slim.
The combination of the internal battery optimized with the R410A ecological refrigerant and the direct expansion systems ensures optimal performance, reliability, and easy installation.

HIGH PRECISION CONTROL



Advanced control logic and technical components with a high regulation capacity, such as EC plug fans, the enthalpy wheel and the direct expansion coil, allows the thermal and air renewal requirements to be achieved perfectly.

The continuous and precise modulation of the resources ensures maximum comfort in the environment and minimizes energy consumption.

PLANT SIMPLIFICATION



WIZARDX is presented as a ready-to-use unit. All the control, regulation, and safety components are already installed inside the unit and tested.

WIZARDX can therefore be quickly connected to Mr. Slim external units without the need for any special unit configurations.



TECHNOLOGICAL CHOICES

EVOLVED CONTROL

The functional heart of the WIZARDX is the electronic controller with an advanced microprocessor capable of managing all the control and regulation functions of both the WIZARDX unit and its optional accessories as well as the system's safety functions.

For the B-OU and E-OU versions, which require multiple Mitsubishi Electric Mr. Slim outdoor units, the integration of the exclusive Mitsubishi IMOUC protocol (Intelligent Multiple Outdoor Units Control) optimizes power levels and maximizes energy efficiency. During heating mode, the protocol manages the defrost phases of the external units in sequence with the objective of maintaining the required temperature set controlling both the delivery and recovery temperature.

EXTERNAL STRUCTURE

Double wall sandwich panels with a thickness of 45mm and internal galvanized steel sheet. External sheet in pre-plasticized galvanized steel.

The frame has double chamber aluminum profiles and panels fixed with concealed screws.

DIRECT EXPANSION COIL

Direct expansion coil optimized for operation with R410A refrigerant.



ENTALPIC ROTARY HEAT RECOVERY

The entalpic heat recovery of the WIZARDX units represents the most efficient recovery system available on the market with yields from 60% to 90% compared to traditional solutions.

Key component is the enthalpy wheel, made with alternatively flat and corrugated aluminum sheets subjected to hygroscopic treatment that creates a very high exchange surface in relation to the volume. This solution makes it possible to recover both latent and sensitive heat with a noticeable increase in the overall efficiency of the unit.









Cooling power recovered



Designed according to the highest quality standards that have always characterized Mitsubishi Electric products, WIZARDX stands out for its technical characteristics and cutting-edge construction and attention to details of the base unit and each individual accessory.

FILTERS

The standard version of the uniti s supplied with G4 + F7 filters on the delivery and G4 on the return.

For a higher filtration, bag filters with F9 efficiency and bag filters with F7 efficiency equipped with activated carbon to ensure a better effect in deodorization, are available.



EC PLUG FAN FANS

Supply and exhaust centrifugal fans with backward blades of the PLUG FAN type, with free impeller and motor directly integrated into the fan structure for a more compact construction and ventilation efficiency.

Thanks to the composite material structure and the electronic commutation engine technology, WIZARDX EC plug fans guarantee better energy performance and very low energy consumption.

As an option it is possible to install fans with a higher prevalence (HP).

ACCESSORIES



Air quality control in the environment with CO_2 probe



Pre-heating and re-heating electric or hot water coils



BMS system connections

- Recirculation damper section
- Roof
 Aluminum roof for

outdoor installations.

- Steam humidifier section
 Additional section equipped with an immerse electrodes steam producer to contribute to the rooms humidification.
- Dampers for fresh air intake, supply, return and exhaust air flows
- **HP high pressure fans**Available or both the supply and exhaust fans



WIZARDX

Unit for the treatment and renewal of outdoor air from 3000 to 20000 m³/h

C-OU VERSION									
MODEL			WIZARDX 3000	WIZARDX 5000	WIZARDX 7500	WIZARDX 10000	WIZARDX 12500	WIZARDX 15000	WIZARDX 20000
Air Flow		[m ³ /h]	2000 - 3000	3500-5000	5500-7500	8000-10000	10500-12500	13000-15000	15500 - 20000
Pressure head max. (Standard configuration)		[Pa]				250			
Pressure head max. (High pressure configuration)		[Pa]				400			
	DX Coil	[kW]	10	20	25	40	45	50	75
Cooling mode	Heat Recovery	[kW]	18,1	29,5	43,5	58,2	73,7	86,4	121,3
	Total	[kW]	28,1	49,5	68,5	98,2	118,7	136,4	196,3
	DX Coil	[kW]	11,2	22,4	27	44,8	49,4	54	81
Heating mode	Heat Recovery	[kW]	13,8	22,2	32,8	43,9	55,5	65,4	92,4
	Total	[kW]	25	44,6	59,8	88,7	104,9	119,4	173,4
Page yany Efficiency	In heating mode	[%]	75,4	72,7	71,7	72	72,7	71,4	75,6
Recovery Efficiency	in cooling mode	[%]	77,1	74,3	73,4	73,6	74,3	73,1	77,2
	Delivery fan (250Pa)	[kW]	0,85 / 2,5	1,39 / 2,5	1,87 / 5	2,51 / 5	3,18 / 5	3,88 / 10	5,53 / 10
Power input (NOMINAL/MAX)	Intake fan (250Pa)	[kW]	0,74 / 2,5	1,25 / 2,5	1,61 / 5	2,16/5	2,91 / 5	3,35 / 10	4,80 /10
(NOIVIIIVALZIVIAX)	Rotary heat recovery	[kW]	0,04	0,09	0,18	0,18	0,37	0,37	0,37
Filter section						Bag filters F7			
Humidification section		[kg/h]	8	15	18	25	35	45	65
All data refers at nominal conditions units without:	accessories clean filters wet coil								

Dimensions					
C-OU version	WIDTH	HEIGHT	LENGTH	N° SECTIONS	WEIGHT
G-00 Version	[mm]	[mm]	[mm]	N SECTIONS	[kg]
WIZARDX 3000	1000	1600	3400	1	850
WIZARDX 5000	1400	1600	3400	1	1000
WIZARDX 7500	1500	2200	3400	1	1150
WIZARDX 10000	1800	2200	3400	1	1350
WIZARDX 12500	2000	2300	3400	1	1600
WIZARDX 15000	2200	2360	3800	3	1950
WIZARDX 20000	2500	2820	3800	6	2300

B-OU VERSION									
MODEL			WIZARDX 3000	WIZARDX 5000	WIZARDX 7500	WIZARDX 10000	WIZARDX 12500	WIZARDX 15000	WIZARDX 20000
Air Flow		[m ³ /h]	2000 - 3000	3500-5000	5500-7500	8000-10000	10500-12500	13000-15000	15500 - 20000
Pressure head max. (Standard configuration)		[Pa]				250			
Pressure head max. (High pressure configuration)		[Pa]				400			
	DX Coil	[kW]	20	34	50	60	80	100	125
Cooling mode	Heat Recovery	[kW]	18,1	29,5	43,5	58,2	73,7	86,4	121,3
	Total	[kW]	38,1	63,5	93,5	118,2	153,7	186,4	246,3
	DX Coil	[kW]	22,4	38,4	54	67,2	89,6	108	135
Heating mode	Heat Recovery	[kW]	13,8	22,2	32,8	43,9	55,5	65,4	92,4
	Total	[kW]	36,2	60,6	86,8	111,1	145,1	173,4	227,4
Recovery Efficiency	in heating mode	[%]	75,4	72,7	71,7	72	72,7	71,4	75,6
necovery Efficiency	in cooling mode	[%]	77,1	74,3	73,4	73,6	74,3	73,1	77,2
	Delivery fan (250Pa)	[kW]	0,89 / 2,5	1,44 / 2,5	1,97 / 5	2,70 / 5	3,35 / 5	4,10 / 10	5,79 / 10
Power input (NOMINAL/MAX)	Intake fan (250Pa)	[kW]	0,74 / 2,5	1,25 / 2,5	1,61 / 5	2,16 / 5	2,91 / 5	3,35 / 10	4,80 /10
(NOMINAL MAY)	Rotary heat recovery	[kW]	0,04	0,09	0,18	0,18	0,37	0,37	0,37
Filter section						Bag filters F7			
Humidification section		[kg/h]	8	15	18	25	35	45	65
All data refers at: nominal conditions, units without	accessories, clean filters, wet coil								

Dimensions					
B-OU version	WIDTH	HEIGHT	LENGTH	N° SECTIONS	WEIGHT
B-00 Version	[mm]	[mm]	[mm]	N SECTIONS	[kg]
WIZARDX 3000	1000	1600	3400	1	860
WIZARDX 5000	1400	1600	3400	1	1020
WIZARDX 7500	1500	2200	3400	1	1180
WIZARDX 10000	1800	2200	3400	1	1380
WIZARDX 12500	2000	2300	3400	1	1640
WIZARDX 15000	2200	2360	3800	3	1990
WIZARDX 20000	2500	2820	3800	6	2360



















E-OU VERSION									
MODEL			WIZARDX 3000	WIZARDX 5000	WIZARDX 7500	WIZARDX 10000	WIZARDX 12500	WIZARDX 15000	WIZARDX 20000
Air Flow		[m ³ /h]	2000 - 3000	3500-5000	5500-7500	8000-10000	10500-12500	13000-15000	15500 - 20000
Pressure head max. (Standard configuration)		[Pa]				250			
Pressure head max. (High pressure configuration)		[Pa]				400			
	DX Coil	[kW]	10	20	25	40	42	50	75
Cooling mode	Heat Recovery	[kW]	18,1	29,5	43,5	58,2	73,7	86,4	121,3
	Total	[kW]	28,1	49,5	68,5	98,2	115,7	136,4	196,3
	DX Coil	[kW]	12	22,4	28	44,8	48	54	81
Heating mode	Heat Recovery	[kW]	13,8	22,2	32,8	43,9	55,5	65,4	92,4
	Total	[kW]	25,8	44,6	60,8	88,7	103,5	119,4	173,4
Recovery Efficiency	in heating mode	[%]	75,4	72,7	71,7	72	72,7	71,4	75,6
necovery Efficiency	in cooling mode	[%]	77,1	74,3	73,4	73,6	74,3	73,1	77,2
	Delivery fan (250Pa)	[kW]	0,85 / 2,5	1,39 / 2,5	1,87 / 5	2,51 / 5	3,18 / 5	3,88 / 10	5,53 / 10
Power input (NOMINAL/MAX)	Intake fan (250Pa)	[kW]	0,74 / 2,5	1,25 / 2,5	1,61 / 5	2,16/5	2,91 / 5	3,35 / 10	4,80 /10
(NOIVIIINAL/IVIAA)	Rotary heat recovery	[kW]	0,04	0,09	0,18	0,18	0,37	0,37	0,37
Filter section						Bag filters F7			
Humidification section		[kg/h]	8	15	18	25	35	45	65

All data refers at: nominal conditions, units without accessories, clean filters, wet coil

Dimensions					
E-OU version	WIDTH	HEIGHT	LENGTH	N° SECTIONS	WEIGHT
E-00 Version	[mm]	[mm]	[mm]	N SECTIONS	[kg]
WIZARDX 3000	1000	1600	3400	1	850
WIZARDX 5000	1400	1600	3400	1	1000
WIZARDX 7500	1500	2200	3400	1	1150
WIZARDX 10000	1800	2200	3400	1	1350
WIZARDX 12500	2000	2300	3400	1	1600
WIZARDX 15000	2200	2360	3800	3	1950
WIZARDX 20000	2500	2820	3800	6	2300

MATCHING BETWEEN WIZARDX AND OUTDOOR UNITS

Mr Slim units are matched to WIZARDX units according to the following tables

Matching WIZ	ARDX C-OU version						
Outdoor unit	WIZARDX 3000	WIZARDX 5000	WIZARDX 7500	WIZARDX 10000	WIZARDX 12500	WIZARDX 15000	WIZARDX 20000
Size P50							
Size P100	1						
Size P125							
Size P140							
Size P200		1		2	1		
Size P250			1		1	2	3

Matching WIZARDX E-OU version											
Outdoor unit	WIZARDX 3000	WIZARDX 5000	WIZARDX 7500	WIZARDX 10000	WIZARDX 12500	WIZARDX 15000	WIZARDX 20000				
Size P50	2										
Size P100		2									
Size P125			2								
Size P140					3						
Size P200				2							
Size P250						2	3				

Matching WIZ	ARDX B-OU version						
Outdoor unit	WIZARDX 3000	WIZARDX 5000	WIZARDX 7500	WIZARDX 10000	WIZARDX 12500	WIZARDX 15000	WIZARDX 20000
Size P50							
Size P100	2						
Size P125							
Size P140		1					
Size P200		1		3	4		
Size P250			2			4	5







Eco Changes is the Mitsubishi Electric Group's environmental statement, and expresses the Group's stance on environmental management. Through a wide range of businesses, we are helping contribute to the realization of a sustainable society.

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