URX CF

Heat recovery unit with refrigerant circuit. Air flow from 442 to 1947 cfm

R410A

60Hz

The URX_CF series is the mono-bloc solution designed for the installation requirements typical for public spaces like bars, restaurants, offices, meeting rooms.
The URX_CF units combine in one mono-bloc unit, besides the fan, filter, and heat recovery sections, a heat pump refrigerant circuit with scroll compressors of high output and low noise.
The supply air is heated or cooled, based on the season, through the heat pump refrigerant circuit located within the unit and charged with refrigerant R410A. All this allows to have a complete unit, with the automatic operation in each season and capable of combining the required space ventilation requirements with efficient heat recovery.
The careful design of the machine combines very compact dimensions, which permit easy installation in false ceilings, with an excellent accessibility for maintaining all the internal components.

Characteristics

VERSIONS
- Standard horizontal configuration
  5 sizes complete with temperature controller and ready for installation.

PANELS:
- Self-supporting sandwich panel 0 .78 inch thick in galvanised steel for internal and external surfaces with injected polyurethane insulation (density 2.5 lb/ft3).

HEAT RECOVERY:
- Cross flow plate heat exchanger in aluminium with outputs over 50% in winter conditions.

FILTERS:
- Class G3, 80% gravimetric efficiency, according to EN 779, thickness 1.89 inch located before the heat recovery both in the supply and return air flow.

CENTRIFUGAL FANS:
- Double inlet forward curved blades with direct drive motor. Single phase 220V-60Hz single speed motor. The air flow is controlled, within +/- 15% of the nominal, through an electronic speed controller supplied as standard.

REFRIGERANT CIRCUIT:
- Heat pump complete with high efficiency low noise scroll compressors, 4 way refrigerant cycle reversing valve, evaporator coil, condenser coil, liquid receiver, liquid separator, double thermostatic expansion valve, liquid sight glass (only for models 150, 210, 330), filter drier, high/low pressure pressostats.

ELECTRICAL PANEL:
- The unit is provided with an electrical panel complete with power and control section (included the control for the 3 way valve for the supplementary hot water coil and associated actuators), ensuring the control of all the refrigerant circuit functions. Included are: NTC return air temperature sensor, external air temperature sensor, dampers and actuators in the free-cooling version, pressure switch in the supply air filter. Supplied loose is a remote mounted control terminal for automatic control of the unit and an outlet to power and control a light to conform with the current regulation for smoking zones.

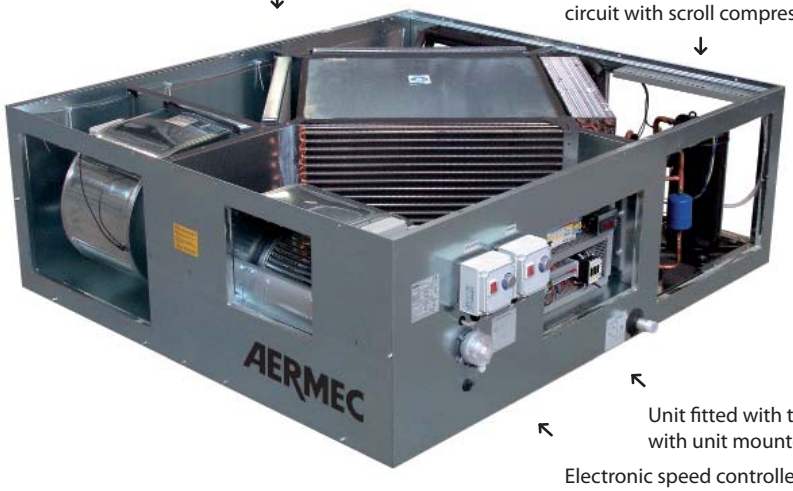
CONDENSATE DRAIN TRAY:
- Condensate drain tray in aluminium.

ACCESSIBILITY:
- From below for the heat recovery, the filters, the condensate drain tray and the fans.

Accessories

- **MBC** casing with 2 row hot water coil to install on the supply air. Includes the three way valve and on-off actuator.
- **FCE** free-cooling complete with controls to be added to the existing. Free-cooling operation only works in the summer mode, if the external air temperature is at least 10K lower than the internal air temperature and if the compressor safeties permit it.
- **FGC** circular flanges. Each accessory consists of a flange to be connected to each unit's rectangular connection.
- **G4F** filter efficiency G4
- **MBX** casing with single stage electrical heater with shrouded finned elements, with double safety thermostat of manual and automatic reset type, to install on the supply air.
- **SUF** silencer splitter module, in appropriate casing. The accessory consists of two modules: one for the supply and one for the return.
- **RS485** board RS485

URX_CF	07	10	15	21	33
RS485	✔	✔	✔	✔	✔
FCE	07	10	15	21	33
FGC	07	10	15	21	-
G4F	07	10	15	21	33
MBC	07	10	15	21	33
MBX	07	10	15	21	33
SUF	07	10	15	21	33



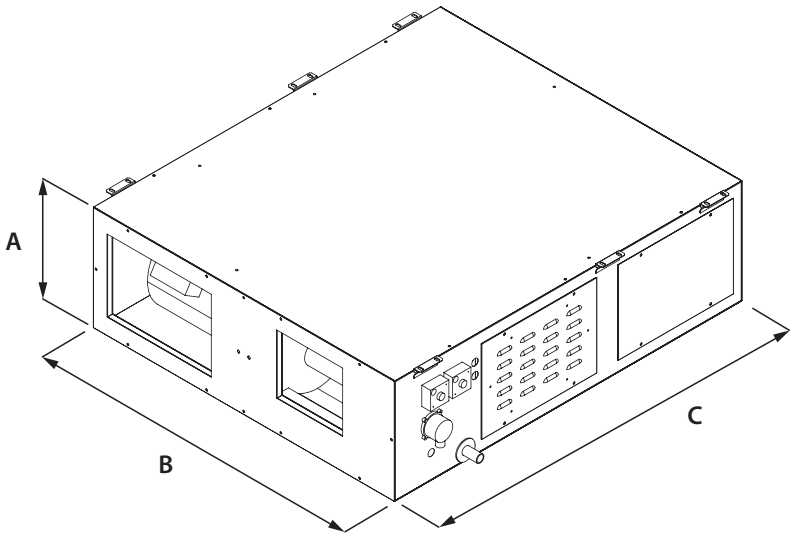
Technical data						
Mod. URX_CF		7	10	15	21	33
Air flow nominal supply and extract	cfm	442.50	590.00	885.00	1239.00	1947.00
Air flow minimum		377.60	501.50	752.25	1053.15	1652.00
Available supply static pressure (max) 1	psi	0.04	0.03	0.03	0.02	0.04
Available extract static pressure (max) 1	psi	0.04	0.03	0.03	0.02	0.04
Heating capacity total (heat recovery+ refrigerant circuit)	Btu/h	30026.85	36851.13	53911.84	77796.84	113624.33
Total cooling capacity (heat recovery+ refrigerant circuit)	Btu/h	20814.07	24908.64	34803.85	51182.13	78479.27
Heating capacity available	Btu/h	8189.14	7847.93	10236.43	16378.28	17743.14
Cooling capacity available	Btu/h	4777.00	5800.64	7506.71	11601.28	17401.92
Efficiency heat recovery	%	46.20	51.20	53.20	53.60	53.60
Fans						
N°	n°	2.00	2.00	2.00	2.00	2.00
Compressors Gas		R410A	R410A	R410A	R410A	R410A
Sound pressure level at 1 m	db(A)	53.00	55.00	57.00	59.00	62.00
Power supply		220V/1/60Hz	220V/1/60Hz	460V/3N/60Hz	460V/3N/60Hz	460V/3N/60Hz
MBC- Hot water coil (Accessory)						
Number of rows	n°	2.00	2.00	2.00	2.00	2.00
Air side pressure drop (nominal air flow)	psi	0.00	0.00	0.00	0.01	0.01
Heating capacity (2)	Btu/h	17060.71	20472.85	29685.64	35145.06	57323.99
Heating Capacity (3)	Btu/h	6483.07	7506.71	11601.28	12624.93	25591.07
Water flow rate at nominal conditions (2)	gpm	1.94	2.30	3.36	3.97	6.49
Water pressure drop (nominal conditions) (2)	psi	2.32	3.19	1.31	1.74	4.50
Water flow rate at nominal conditions (3)	gpm	1.48	1.68	2.57	2.81	5.75
Water pressure drop (nominal conditions) (3)	psi	1.60	2.03	0.87	1.02	4.06
MBX -Electric Heating coil (accessory)						
Power supply		460V/3/60Hz (Separate Power supply to the unit)				
Heating capacity	Btu/h	10236.43	15354.64	20472.85	30709.28	40945.70
Air side pressure drop (nominal air flow)	psi	0.00	0.00	0.00	0.00	0.00
Number of stages	n°	1.00	1.00	1.00	1.00	1.00
CONNECTION DIAMETERS						
Drain pan condensate discharge diameter	in	1"	1"	1"	1"	1"
Water coil connection diameter		3/4"	3/4"	3/4"	3/4"	3/4"

Heating
fresh air flow equal to the exhaust air flow; external air temperature (in) -41°F 80% r.h.; room air temperature 68°F, 50% r.h.

Cooling
fresh air flow equal to the exhaust air flow; external air temperature (in) 93.2°F 50% r.h.; room air temperature 78.8°F, 50% r.h.

(1) Fan power supply 220V; nominal air flow rate without accessories
(2) Water temperature (in/out) 158/140°F; operating as in heating mode; with compressor operating
(3) Water temperature (in/out) 113/104°F; operating as in heating mode; with compressor operating
Sound pressure: at 39 inch in free field with ducted vents

Dimensional data (in)



URX_CF			7	10	15	21	33
Height	A	in	17.72	17.72	21.65	21.65	23.62
Width	B	in	51.18	51.18	59.06	59.06	62.99
Depth	C	in	59.06	59.06	70.87	70.87	70.87
Weight		lb	451	479.6	598.4	655.6	721.6

Cod.: SURXUY.01 / 1306

Aermec reserves the right to make all modifications deemed necessary for improving the product at any time with any modification of technical data .

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