

## UR CF Heat recovery unit with cooling circuit

### R407C

In addition to the ventilation, filtering and recovery sections, the UR-CF series also enclosed a heat pump cooling circuit with R407C coolant in a monobloc unit. All this creates a complete machine that independently operates in every season, able to combine necessary air exchange in rooms with efficient heat recovery.

The precise machine design has also combined very compact dimensions for cassette installation without sacrificing accessibility for internal component maintenance.

The wide range, made up of five models (with air capacity from 750 m<sup>3</sup>/h to 3300m<sup>3</sup>/h), and installation and management simplicity satisfies many system needs.



### Features

#### STRUCTURE AND PANELLING:

- 20 mm thick galvanised sheet self-supporting sandwich panels insulated with injected polyurethane (40 kg/m<sup>3</sup> density)
- construction method able to simplify all maintenance

#### FAN GROUP:

- dual suction centrifugal fans directly coupled with electric motors

#### FILTERING:

- corrugated laid cell type filters (48 mm thick), class G3 (80% weight efficiency), located at both supply and recovery

#### HEAT REGENERATOR:

- static cross flow type with aluminium plates
- peralluman condensation collection tank

#### COOLING CIRCUIT:

- heat pump with scroll compressor, optimised to guarantee high yield and low noise levels

#### REGULATION:

- unit equipped with switchboard complete with power and regulation sections even of 3-way valves and servo drives if installed
- remote control terminal capacity (temperature)
- adjustable fans speed
- standard filter cleanliness meter control

### Accessories

- **FC:** free-cooling complete with control to be added to the existent one. Free-cooling operations only occur if the unit is in summer mode, if the outside air temperature is least 10°C less than indoor air temperature and if the compressor protection control permits it.
- **FGC:** circular flanges. Each accessory is made up of a flange to be coupled with one of the unit's rectangular outlets
- **G4F:** efficiency filters to be used instead of class G3 standard filters.
- **MBC:** box complete with 2-level hot water battery to be applied on the air supply. 3-way valves and relevant on-off type servo drives are included.
- **MBX:** box complete with single-stage electric battery with reinforced fin elements, with dual safety thermostat, automatic and manual reset, to be applied on the air supply.
- **SUF:** module with silencers, in specific box. The accessory is made up of two modules, one for the supply and another for the recovery.

	Compatibility of accessories				
	UR 75 CF	UR 100 CF	UR 150 CF	UR 210 CF	UR 320 CF
FC	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. UR		075 CF	100 CF	150 CF	210 CF	320 CF
Nominal air capacity (*)	m <sup>3</sup> /h	750	1000	1500	2100	3300
Minimum air capacity	m <sup>3</sup> /h	640	850	1275	1785	2800
Static pressure available in supply (**)	Pa	256	211	223	146	267
Static pressure available in recovery (**)	Pa	244	203	206	134	246
Pressure drops with water battery (**)	Pa	11	19	17	25	41
Pressure drops with electric battery (**)	Pa	10	10	10	10	10
Regenerator efficiency (***)	%	51	56	53	56	54
Recovered heat capacity (***)	kW	3.2	4.7	6.6	9.8	14.9
Heat pump nominal heat capacity (***)	kW	5.3	6.7	9.5	14.1	16.6
Total heat capacity (***)	kW	8.5	11.4	16.1	23.9	31.5
Recovered cooling capacity (****)	kW	0.9	1.3	2	2.9	4.4
Heat pump nominal cooling capacity (****)	kW	4.6	6.4	8.3	14	15.3
Total cooling capacity (****)	kW	5.5	7.7	10.3	16.9	19.7
Water heating battery heat capacity (70/60°C) (****)	kW	4.5	5.5	8.4	11	15.6
Water heating battery heat capacity (45/40°C) (****)	kW	1.4	1.7	2.7	3.5	5
Electric heating battery heat capacity (400V)	kW	3	4.5	6	9	12
Capacity absorbed by fans	kW	0.6	0.6	1.1	1.1	2.2
Number of fans	n.	2	2	2	2	2
Total capacity absorbed in cooling (****) / in heating (***)	kW	3/1.8	3.6/2.3	5/3.7	6.7/4.5	8/5
Power voltage (compressor)	V	230V	230V	400V	400V	400V

**Power supply** = 1~ 230V 50Hz; 3N~ 400V 50 Hz.

(\*) At maximum fan speed.

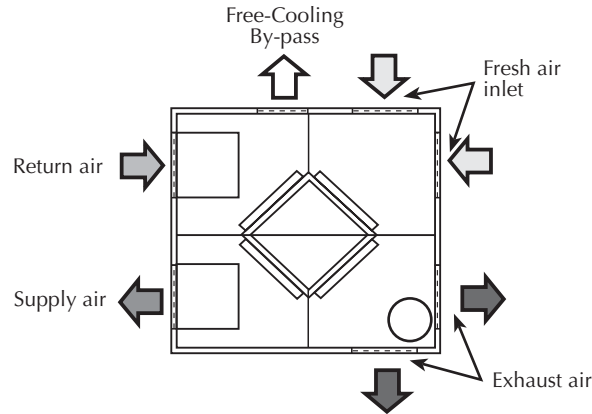
(\*\*) At nominal air capacity.

(\*\*\*) Performance referred to: recovery air capacity equal to ejected air capacity; external air input temperature -5 °C, 80% RH, room temperature 20°C, 50% RH.

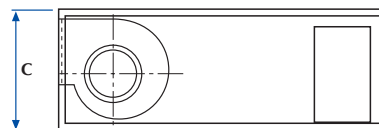
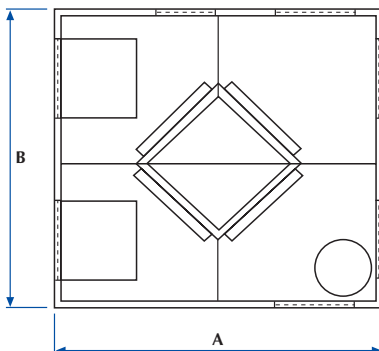
(\*\*\*\*) Performance referred to: recovery air capacity equal to ejected air capacity; external air input temperature 34 °C, 50% RH, room temperature 26 °C, 50% RH.

(\*\*\*\*\*) Performance referred to: air temperature supplied to water heating battery equal to air temperature outputted by condenser battery in nominal conditions.

## Lay-out



## Dimensions (mm)



Mod. UR		075 CF	100 CF	150 CF	210 CF	320 CF
Height	A	1500	1500	1800	1800	1800
Width	B	1300	1300	1500	1500	1600
Depth	C	450	450	550	550	600
Weight	kg	215	220	305	320	400