

CENTRALISED HEAT RECOVERY UNITS

APPLICATION

Centralised heat recovery units designed to ensure a correct ventilation in apartment blocks or non-residential buildings which can be used as an independent ventilation system or in combination with traditional heating/cooling systems. Suitable for a working environment free of aggressive, corrosive and/or explosive agents.

CONSTRUCTION

- The structure is made from extruded aluminium profiles, which ensure its strength and durability over time.
- Self-supporting structure made from externally coated steel panels (RAL 9002) and galvanised on the inside or made of aluzinc, with 22 mm thick mineral wool thermal and acoustic insulation and a fire resistance rating of Class 0.
- Pre-assembled circular grilles and safety grilles around the motors for quick and safe installation.
- EC external rotor motors mounted on sealed for life ball bearings for energy saving, provided with thermal protection.
- Backward curved centrifugal impeller dynamically balanced and directly coupled with the motor; high-performance and quiet.
- High efficient counterflow plate heat exchanger (>75%) made from aluminum.
- Integrated automatic bypass, ideal for 'free cooling' operation during the summer months.
- Aluminum condensation drainage tray

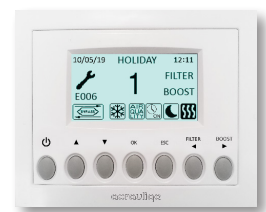
FEATURES & BENEFITS

- Units are available in 5 sizes up to 4.150m³/h, in horizontal vertical installation available on request).
- Easy installation thanks to the ceiling bracket
- Simplified electrical connection thanks to the unit's pre-wiring. Three-phase units require a 5-core power cable.
- The units are provided with ePM10 50% (M5) filter on extraction side and ePM1 50% (F7) filter on intake side, easily removable.
- Differential pressure switch for monitoring air filter blockage.
- Automatic anti-freeze protection to prevent ice forming on the inlet side of the heat exchanger.
- Main switch on the machine.
- Tested to the latest standards, meaning accurate, up to date information on electrical safety, performance and noise level that can be relied upon.
- Operating temperatures between -20°C and +45°C
- Designed and manufactured in accordance with Machinery Directive (MD), Low Voltage Directive (LVD), Electromagnetic Compatibility Directive (EMC) and Regulation 1253/2014 (Erp Directive).

OPERATION

The unit is supplied with a multi-function LCD display (CTRL-DSP) for automatic control and convenience, providing:

- 3 speed settings (adjustable).
- Boost option
- Holiday mode
- Night mode
- Weekly timer
- Bypass setting
- Airflow balancing
- Filter replacement and fan failure indicator
- Working hour counter
- Setting saving and loading
- Suitable for remote ambient sensors (SEN-HY, SEN-CO2 or SEN-PIR)
- ModBus interface
- Connection to remote pre/post heating element.

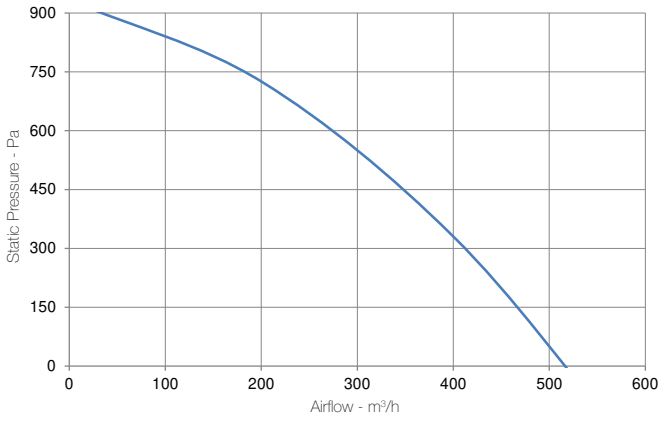


CTRL-DSP
(in dotazione)

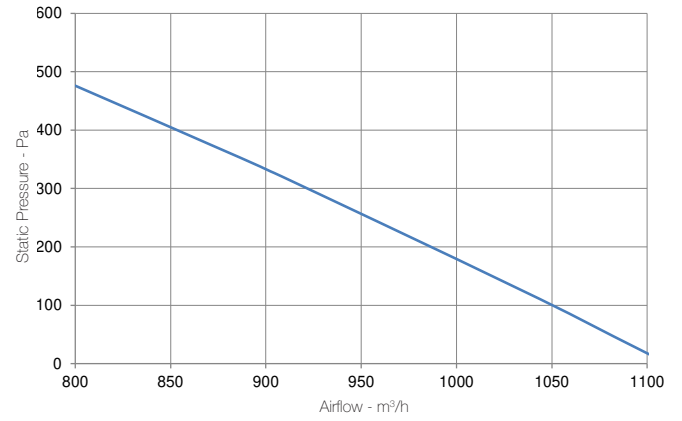
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A SPECIFIC FAN SELECTION**

Performance*

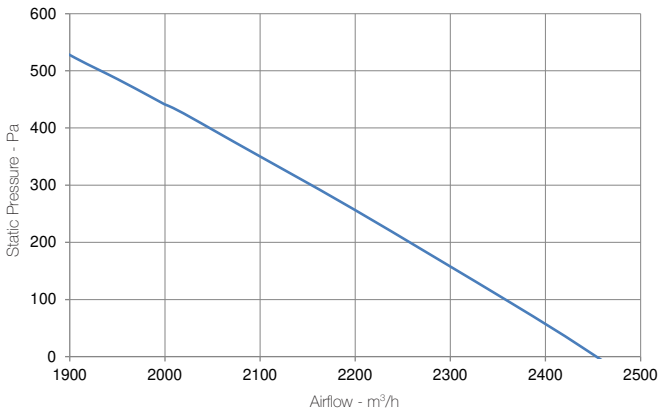
QRCS 05-1EC



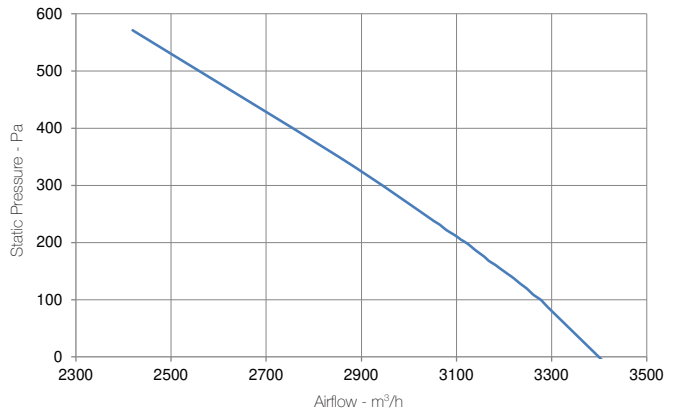
QRCS 10-1EC



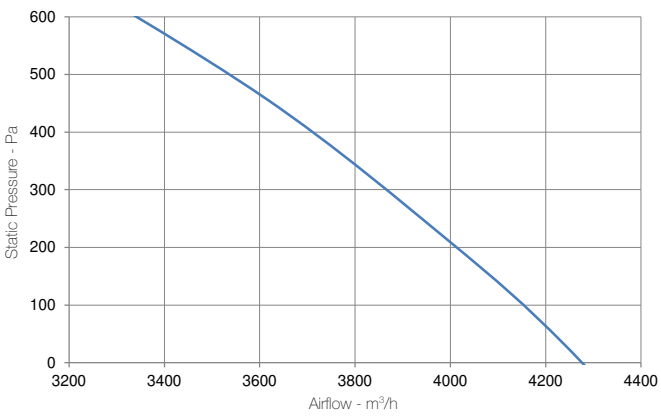
QRCS 22-3EC



QRCS 32-3EC



QRCS 40-3EC



* The indicated performance refer to the unit with cleaned and duly maintained filters.

Performance

Description		QRCS 05-1EC	QRCS 10-1EC	QRCS 22-3EC	QRCS 32-3EC	QRCS 40-3EC
Nominal airflow	m ³ /h	400	900	2000	3200	4000
External static pressure ⁽¹⁾	Pa	331	334	441	147	209
Sound pressure level at 5 m ⁽²⁾	dB(A)	49	52	63	57	57
Sound power ⁽²⁾	dB(A)	72	75	86	80	80
Maximum power consumption	W	448	840	2160	1940	2800
Maximum current draw	A	2,8	3,1	2,5	3,3	5,4
Power supply	V/ph/Hz	230/1/50			380/3/50 ⁽⁶⁾	
ErP 2018 recovery efficiency ⁽³⁾	%	78	78	75	74	73
Recovered power ⁽⁴⁾	W	3080	6930	15400	24640	30800

(1) Based on the nominal flow rate.

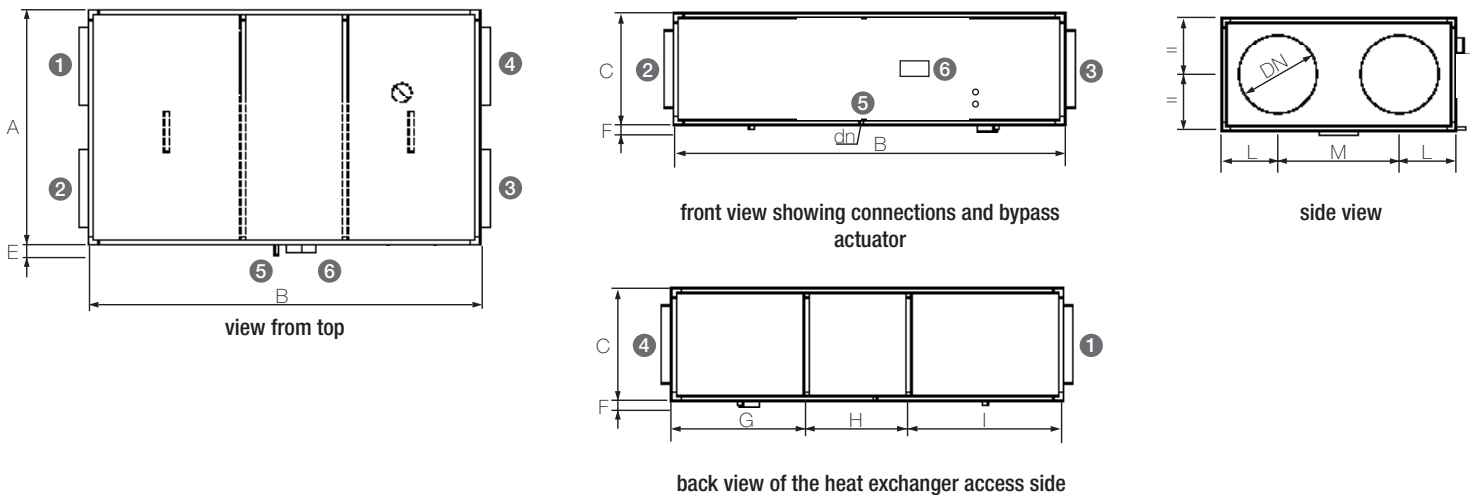
(2) Based on nominal operating conditions with a ducted unit and shown for comparison purposes only.

(3) Under dry conditions at the nominal flow rate: outdoor air at 5°C, room air at 25°C.

(4) Under dry conditions at nominal flow rate: outdoor air at 0°C and 80% RH, room air at 20°C and 60% RH.

(5) The cable to be used for powering three-phase units must be a 5-core cable.

Dimensions (mm) and Weight (kg)



	A	B	C	dn	DN	E	F	G	H	I	L	M	Peso
QRCS 05-1EC	750	1125	330	15	250	70	50	300	525	300	195	360	119
QRCS 10-1EC	1250	1400	385	15	250	70	50	435	530	435	320	610	153
QRCS 22-3EC	1250	2050	580	15	355	70	50	625	800	625	320	610	254
QRCS 32-3EC	1750	2100	580	15	450	70	50	650	800	650	445	860	324
QRCS 40-3EC	1750	2100	600	15	500	70	50	650	800	650	445	860	324

	Airflow
1	Air intake from outside
2	Air exhaust to outside
3	Air supply to inside
4	Air extraction from inside
5	Condensate drain
6	Bypass control