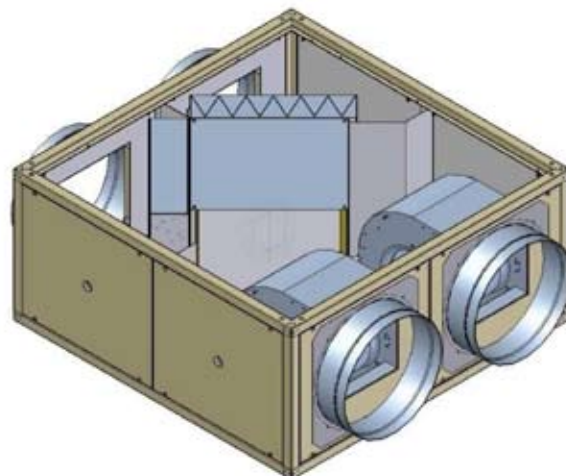
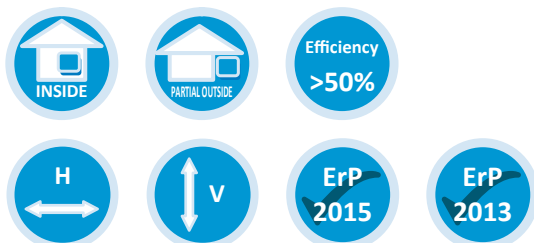


RECB



Heat recovery unit



General description

These heat recovery units are suitable for residential and commercial applications and offer a real energy saving in forced ventilation plants, by using an aluminum plated crossflow heat exchanger, able to transfer more than 50% of heat which otherwise would be lost with air exhaust.

These units may be integrated with traditional heating and cooling systems (such as fan-coils, water heaters, heating floor etc.) and can operate both in summer and winter seasons.

The series consists of 5 models, with airflow rate from 100 m³/h to 5000 m³/h, particularly suitable for false ceiling installation and they may be appropriately ducted allowing air supply and air suction directly in the room.

Robust frame with sandwich panels in galvanized prepainted sheet externally, color RAL 9002, galvanized sheet internally. Fully removable panels with thermal and acoustic insulation in mineral wool, fire reaction class A1 (EN 13501-1), with an average thickness of 20 mm. Air to air crossflow plate heat exchanger made by aluminum, mechanically

sealed for a complete separation of the fluids, without moving parts, low pressure drop, high heat exchange efficiency, easy to clean, low maintenance and an effective action of noise suppression. Heat exchanger certified by Eurovent accordingly to UNI EN 308. Plain filter, 98 mm thickness, with regenerable filtering media 100% polyester fiber, G4 efficiency according to UNI EN 779:2012 (Eurovent EU4, average degree of separation (Am) ≥ 90%), self-extinguishing (class M1 - DIN 53438). Air filters are easily removable from the bottom to allow periodical cleaning or replacing. Supply and exhaust fans are centrifugal double inlet forward curved blades directly coupled to a multi-speed electric motor. Fans comply with the requirements for the year 2013 of the ErP Directive 2009/125/EC, according to the regulation 327/2011. The unit is complete with electric box IP 56 and terminal for electrical connection of each fans. Two condensate discharge connections on the bottom allow to set the unit in many configuration and different airflow directions, even on site.

Accessories

- FC4L G4 filter 98mm
- FC4S G4 filter 48mm
- FC6 High efficiency filter F6
- FC7 High efficiency filter F7
- FC8 High efficiency filter F8
- KVU Kit Vertical unit
- EBP External by-pass
- EHS Electric Heater Section
- WCS Water Coil Section
- WHAC Water humidifier/Adiabatic cooler
- RCH Roof cover - Horizontal unit
- RCV Roof cover - Vertical unit
- MCP Multifunction control panel
- V23 3 way valve with actuator WCS

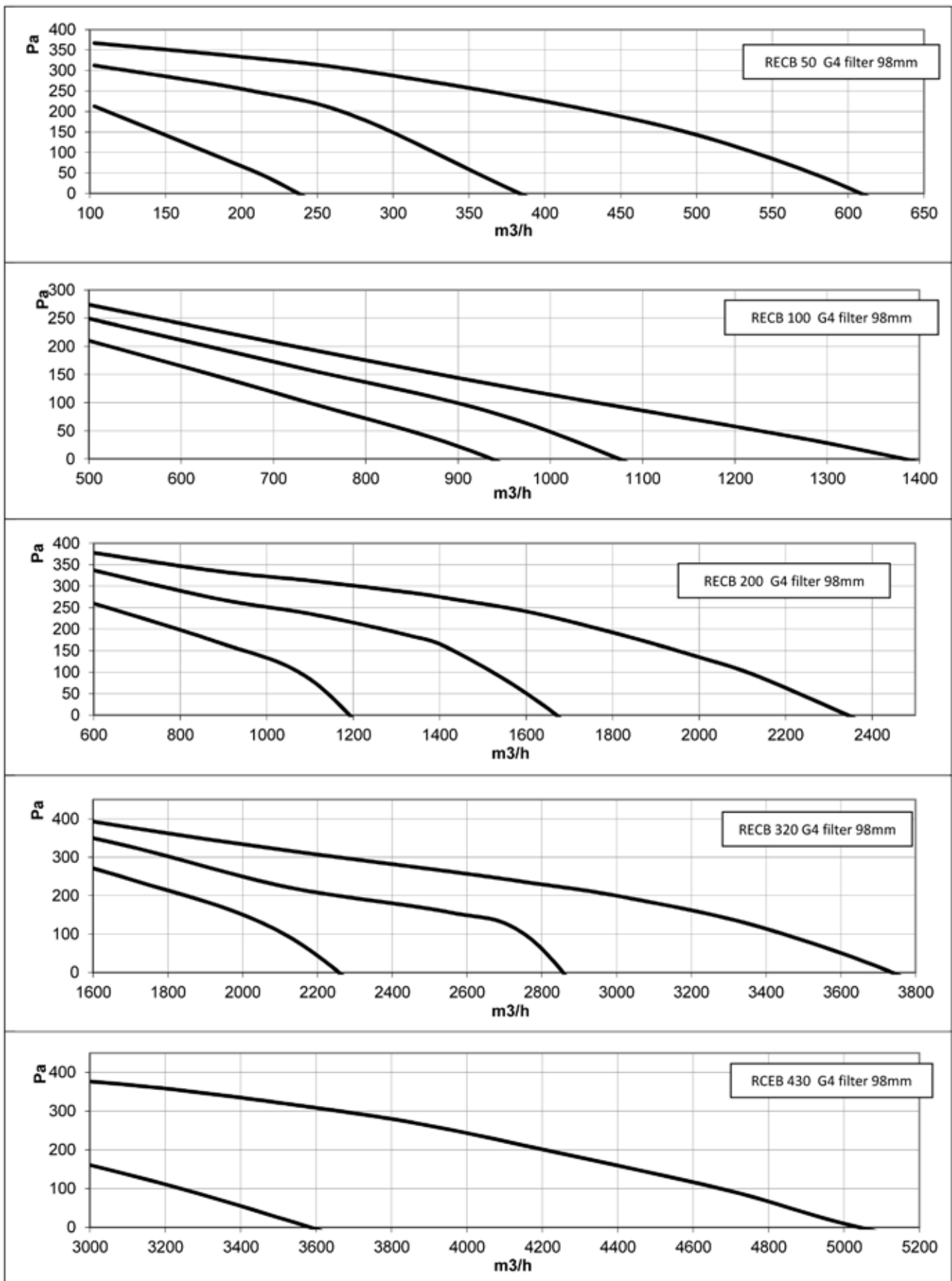
Technical performance with G4 filter 98mm

		Fan speed	50	100	200	320	430
Airflow rate	Max	m ³ /h	500	1000	2000	3200	4300
	Med	m ³ /h	330	900	1500	2600	-
	Min	m ³ /h	220	800	1100	2100	3200
External static pressure	Max	Pa	140	120	140	160	180
	Med	Pa	90	95	110	150	-
	Min	Pa	50	70	80	110	120
Sound pressure level a 1 m	Max	dB(A)	51	52	58	59	62
	Med	dB(A)	50	49	54	53	-
	Min	dB(A)	44	45	42	51	55
Maximum current		A	0.70 x 2	1.50 x 2	3.90 x 2	5.70 x 2	3,30 x 2
Maximum power input		kW	0.17 x 2	0.36 x 2	0.90 x 2	1.40 x 2	1.89 x 2
Specific fan power		W/(m ³ /s)	1019	986	1166	1143	1213
Efficiency grade N			37.9	49.0	44.8	50.2	55.2
2009/125/EC ErP compliant for year			2013	2015	2013	2015	2015
Fan speeds		n°	3	3	3	3	2
Poles		n°	2	4	4	4	4
Minimum protection degree			IP 32	IP 44	IP 20	IP 20	IP 20
Minimum temperature class			B	B	B	B	B
Electrical power supply		V-Ph-Hz	230-1-50			400-3-50	
Winter		Fan speed	50	100	200	320	430
Efficiency (1)	Max	%	58.7	56.4	50.0	53.8	54.6
	Med	%	61.6	57.2	51.7	55.5	-
	Min	%	64.3	58.0	53.5	57.1	56.9
Recovery heating capacity (1)	Max	kW	2.40	4.70	8.30	14.3	19.5
	Med	kW	1.70	4.30	6.40	12.0	-
	Min	kW	1.20	3.90	4.90	10.0	15.1
Supply temperature (1)	Max	°C	8.3	7.8	6.3	7.2	7.4
	Med	°C	9.0	8.0	6.7	7.6	-
	Min	°C	9.6	8.2	7.1	8.0	7.9
UNI EN 13053 efficiency class	Max		H4	H4	H5	H5	H5
Summer		Fan speed	50	100	200	320	430
Airflow rate	Max	m ³ /h	500	1000	2000	3200	4300
	Med	m ³ /h	330	900	1500	2600	-
	Min	m ³ /h	220	800	1100	2100	3200
Efficiency (2)	Max	%	50.8	48.9	43.5	48.2	48.8
	Med	%	53.2	49.5	44.8	49.5	-
	Min	%	55.4	50.2	46.3	50.9	50.8
Recovery cooling capacity (2)	Max	kW	0.50	0.90	1.60	2.90	4.00
	Med	kW	0.30	0.80	1.30	2.40	-
	Min	kW	0.20	0.80	1.00	2.00	3.10
Supply temperature (2)	Max	°C	29.0	29.1	29.4	29.1	29.1
	Med	°C	28.8	29.0	29.3	29.0	-
	Min	°C	28.7	29.0	29.2	28.9	29.0

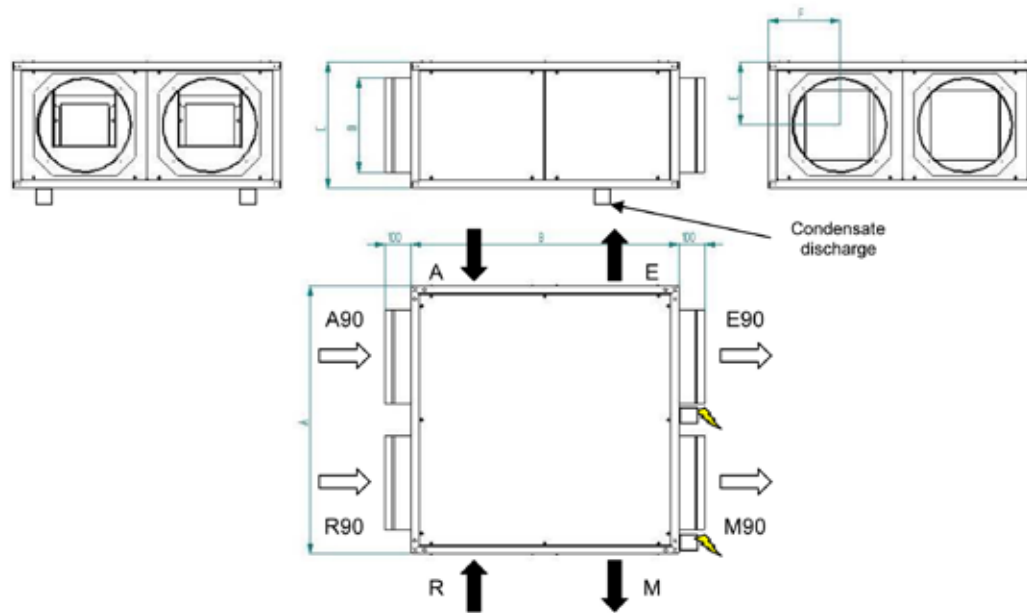
(1) Fresh air -5°C 80% RH, ambient air 20°C 50% RH

(2) Fresh air 32°C 50% RH, ambient air 26°C 50% RH

Airflow rate – External static pressure performance – G4 filter



Dimensions and weight



			50	100	200	320	430
A	mm		750	900	1000	1300	1400
B	mm		750	900	1000	1300	1400
C	mm		290	410	470	530	705
D	mm		200	315	355	450	500
E	mm		145	205	235	265	352
F	mm		202	240	265	340	365
WEIGHT	kg		41	68	99	155	235
Condensate discharge	Inch		1/2" F	1/2" F	1/2" F	1/2" F	1/2" F



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