

Heat Recovery Unit with integrated by-pass for free-cooling



from 500 to 3700 m³/h

General features

The RKE BP unit has the same characteristics as the RKE unit, but with the only one difference that it has a system to exclude the recovery exchanger; in this working function it is called "free-cooling", it uses the fresh air at the temperature and humidity conditions to get easy the room heating and cooling.

RKE BP series consist in 5 models with airflow range from 500 m³/h to 3700 m³/h.

Mechanical features

The by-pass was made by a special motorised system that it keeps the same airflow when the unit is working in the standard way or in free-cooling.

Accessories

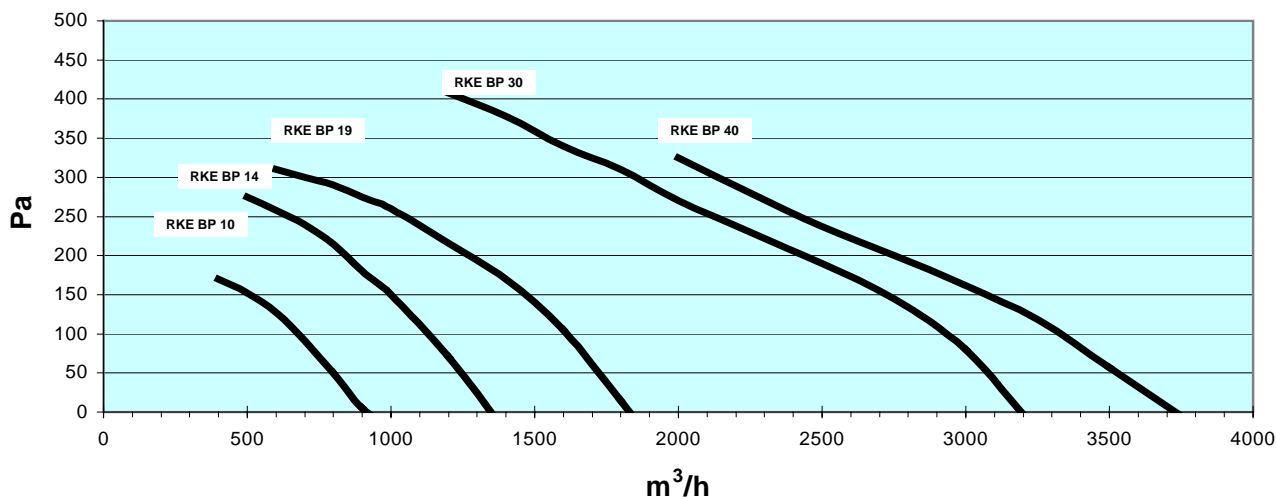
The accessories are the same as per the RKE standard range.

MODEL	RKE BP	10	14	19	30	40
Airflow rate	m ³ /h	650	1100	1600	2600	3400
External static pressure	Pa	100	120	120	170	100
1 m sound pressure level	dB(A)	52	59	58	58	60
Motor power	W	2x147	2x350	2x350	2x550	2x750
Maximum current	A	3,0	5,8	6,2	11,4	6,2
Fan speed	n°	3	3	3	3	2
poles	n°	4	4	4	4	4
Minimum protection degree		IP 20				
Minimum temperature class		B	B	B	B	B
Electrical power supply	V/ph/Hz	230/1/50				400/3/50
Recovery efficiency ⁽¹⁾	%	54,0	51,6	51,0	55,3	55,3
Saved power ⁽¹⁾	kW	3,0	4,8	7,0	12,3	16,1

⁽¹⁾ At the following conditions valutate alle seguenti condizioni: room air temperature 20°C ; fresh air temperature – 5°C

Price List 2008	RKE BP	10	14	19	30	40
Horizontal version unit with by-pass		2.422,0	2.726,0	3.178,0	3.986,0	4.551,0
Vertical version unit with by-pass		2.560,0	2.884,0	3.343,0	4.187,0	4.765,0

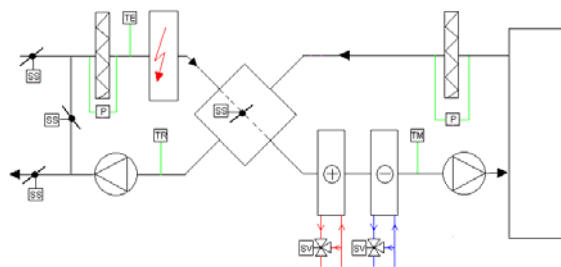
MAX SPEED AIR PERFORMANCES



MODULATING REGULATION

It is composed by an electronic kit, an hydronic kit and a range of accessories used for the control services.

The modulating regulation allows to optimize the unit work handling carefully the air flow rate and the water flow rate to satisfy the request (set point).



Electronic Kit

RQU : temperature analogical regulator complete by n. 3 NTC sensor and electric board

Regulator services

- Heating/cooling/free-cooling automatic mode (2/4 pipe plant)
- antifreeze
- electric heater on/off mode
- winter heating speed-up
- heat recovery defrost
- manual or automatic fan speed selection (by CO₂ sensor signal also)
- dirty filter alarm (by PSTD)
- missing ventilation alarm (by pressure switch)
- Timer
- Prearrangement for BMS (see TNET)

Hydronic Kit

V32 : 3 way valve (for SKW or SAF) complete by modulating servocontrol (power supply 24 V, 0÷10 V modulating signal) and joint tubing

accessory

SSE : on/off damper servocontrol power supply 230 V

PSTD : air filter pressure switch