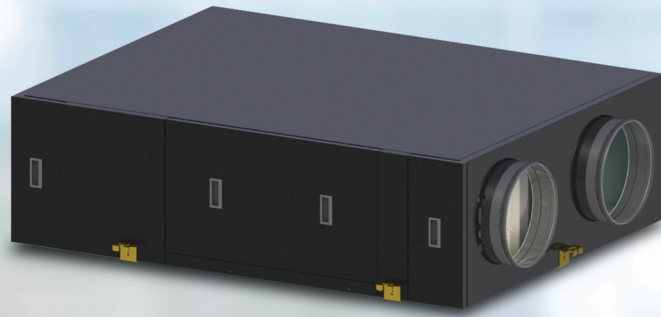


BSK BRHR Plus

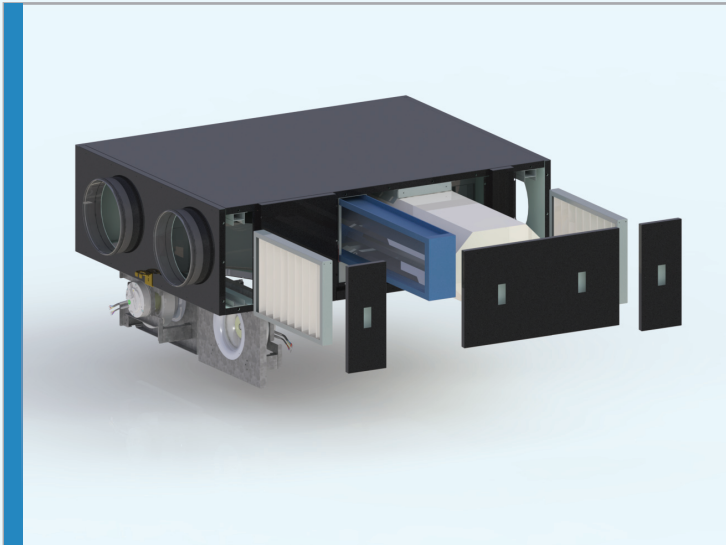


Commercial Ceiling Type Heat Recovery Units

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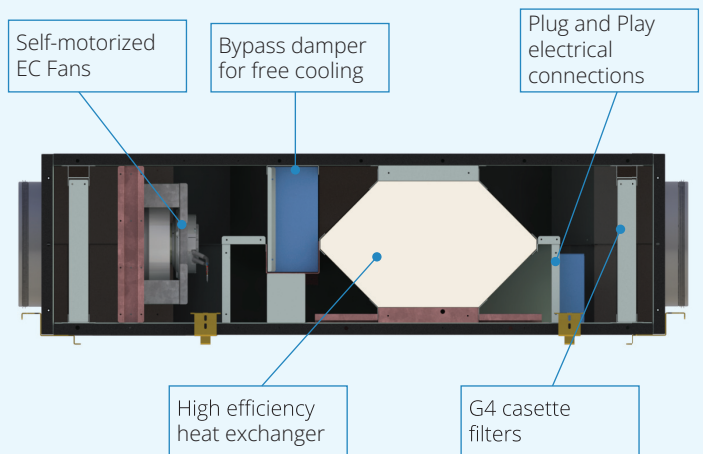
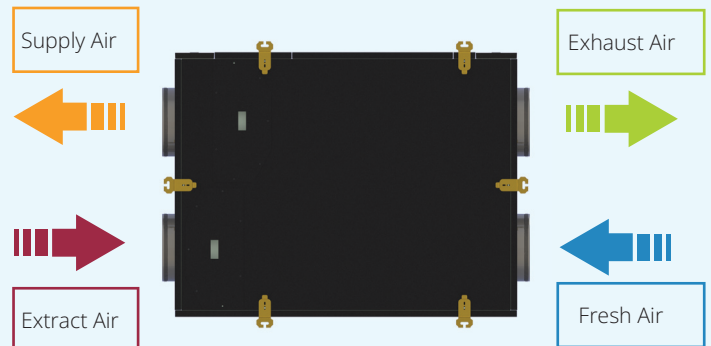


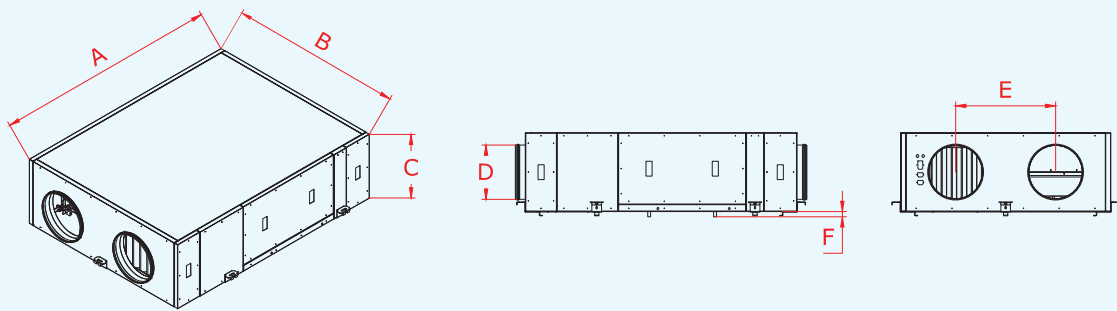
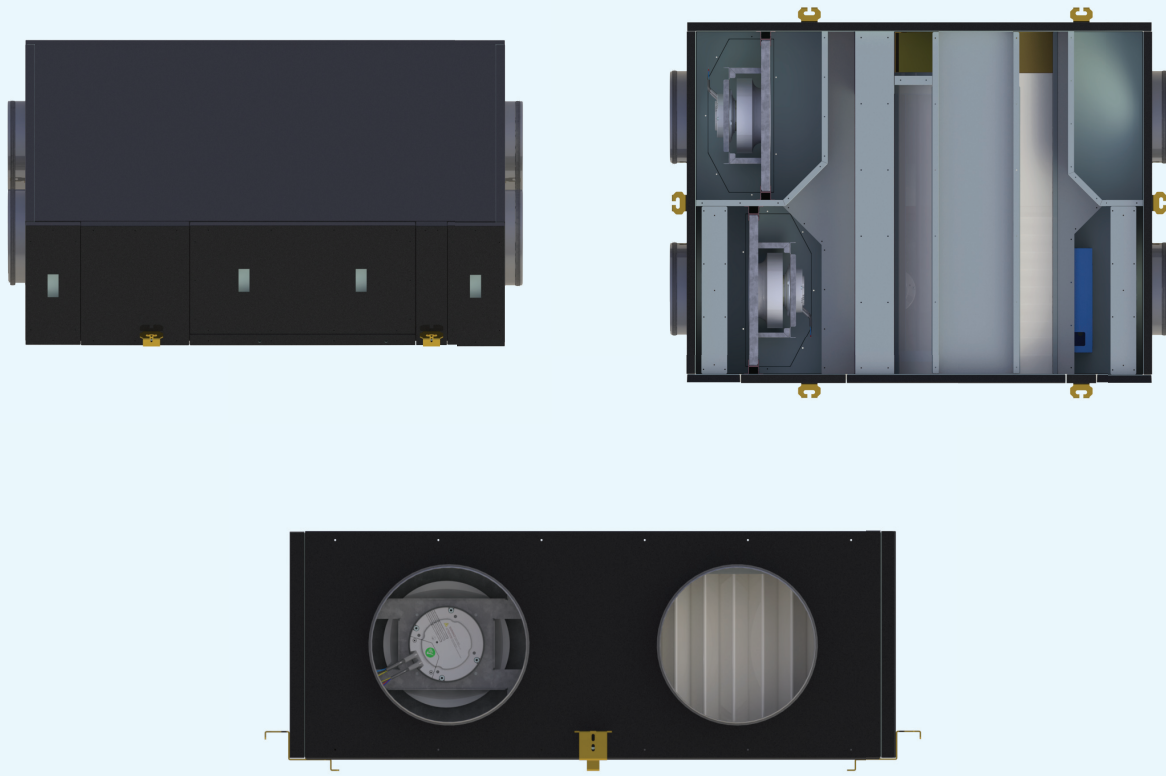
COMMERCIAL CEILING TYPE HEAT RECOVERY UNITS



Heat recovery units are used to reduce the energy required to heat or cool the buildings. This is done by recovering the residual heat of the exhaust air and transferring it to the supply air by the means of heat exchangers. BSK BRHU Plus units use high thermal efficiency heat exchangers to transfer up to 85% of this heat, back into the ventilation system, significantly improving both the energy efficiency and the air quality of a building.

- BRHR Plus range offers coverage from 500 to 3000 m³/h across 6 models, designed for commercial applications such as offices and institutions,
- Thin, flat profile is perfect for ceiling mounting,
- Galvanized steel sheet casing with insulated interior using thermal and acoustic insulation foam for silent operation and maximum efficiency,
- Aluminum plated, counter-flow heat exchangers with up to 90% high thermal efficiency,
- Self-motorized EC fans with low power consumption and noise levels, and allowing precise % speed control,
- G4 grade filters with optional F7 grade upgrades, differential pressure controlled status check for filters,
- Easy access side panels to filters and fans for maintenance and repairs,
- Plug-and-play out of the box, no need to wire internal cables for power or accessories,
- Wide range of accessories to choose from, including pre-heater, water heater, electric heater, CO2 sensor, room humidity sensor, silencers and custom PCBs.
- ModBus compatible operation, perfect for building management systems and automatic control,
- Extensive control options including free-cooling, boost, and de-frost modes, automated weekly schedules, and temperature or humidity triggered automatic operation.





	A	B	C	D	E	F
BRHR Plus 5	1400	800	370	200	370	18
BRHR Plus 10	1500	1050	410	250	495	18
BRHR Plus 15	1550	1200	450	310	570	18
BRHR Plus 20	1650	1450	540	355	695	18
BRHR Plus 25	1700	1650	540	400	795	18
BRHR Plus 30	1850	1650	675	450	795	18

OPERATION MODES

BOOST MODE

Boost mode makes the BSK Heat Recovery Unit to run at full capacity in order to quickly ventilate the surroundings. This mode can be triggered in various ways. Built-in humidity sensor can detect the humidity level of the returning air and automatically initiate Boost Mode when a set level of humidity is reached to quickly dissipate the moisture to prevent it building up. Alternatively, if an external aspirator is connected to the "boost port" of the device, when the aspirator is turned on, the device also enters Boost Mode to help with the ventilation effort.

FREE COOLING MODE

On seasonal transitions (spring and autumn) when indoor and outdoor temperature differences are not significant, BSK Heat Recovery Units automatically switch to Free Cooling Mode by opening the built-in bypass vent. The air will pass through this canal without going through the heat exchanger, thus reducing the stress on fans and operate on an even less power. This set temperature can be changed on the digital control panel to a desired level.

DEFROST MODE

We suggest that you equip a pre-heater for uses below -30C to avoid freezing inside the unit, however to prevent this from happening when there is no heater attached, our devices automatically enter defrost mode when temperature requirements are not met. Defrost Mode adjusts intake and exhaust air rates to prevent icing and keep the device temperature at a safe level. We strongly advise you to use a pre-heater for climate conditions below -10 C.

ModBus COMPATIBLE

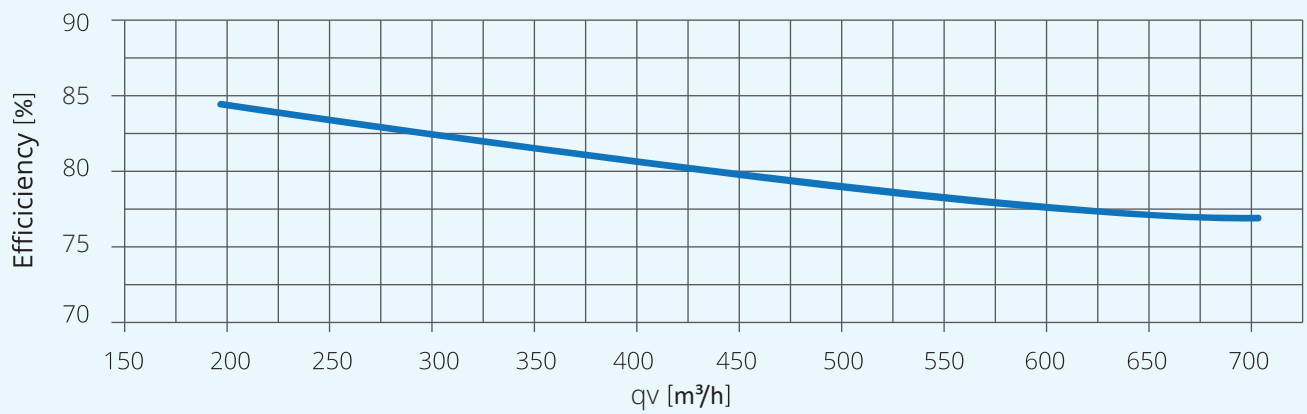
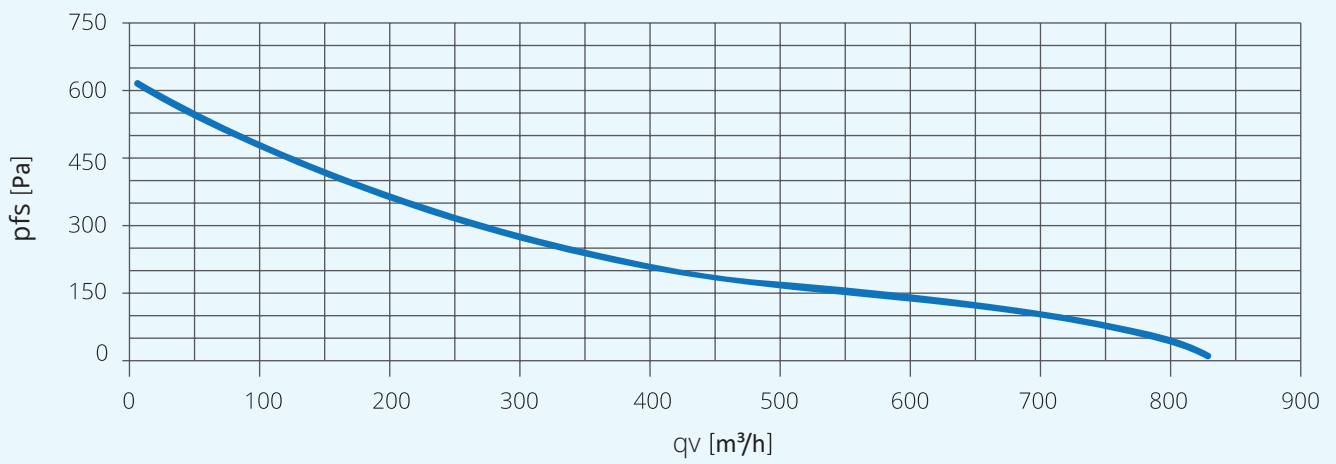
BSK Heat Recovery Units use ModBus protocol to connect and communicate with a building management system (BMS). This connection enables the devices to be controlled centrally, report malfunctions or periodic maintenances.

TECHNICAL SPECIFICATIONS

	BRHR Plus 5	BRHR Plus 10	BRHR Plus 15	BRHR Plus 20	BRHR Plus 25	BRHR Plus 30
Max. Air Flow	500 m ³ /h	1000 m ³ /h	1500 m ³ /h	2000 m ³ /h	2500 m ³ /h	3000 m ³ /h
Ref. Ext. Pressure				100 Pa		
Temperature efficiency				85%		
Heat Exchanger Type			Aluminum Plated Counter-flow			
Casing Type			Double Walled Galvanized Steel Sheet			
Fan Type			High Efficiency Backward Curved EC Fans			
Max. Power Input	350 W	780 W	1000 W	950 W	1000 W	1470 W
Supply Volatage			230VAC - 50Hz			
Filter Class			G4 x 2			
Operating Temp.			-20 to +50			

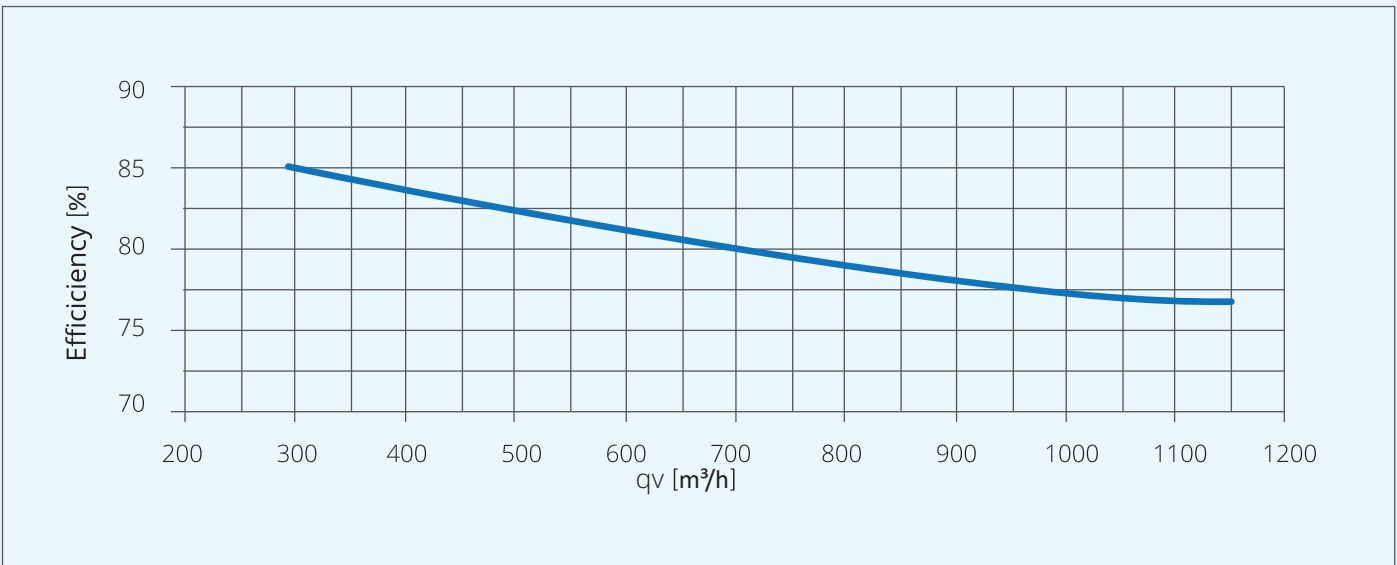
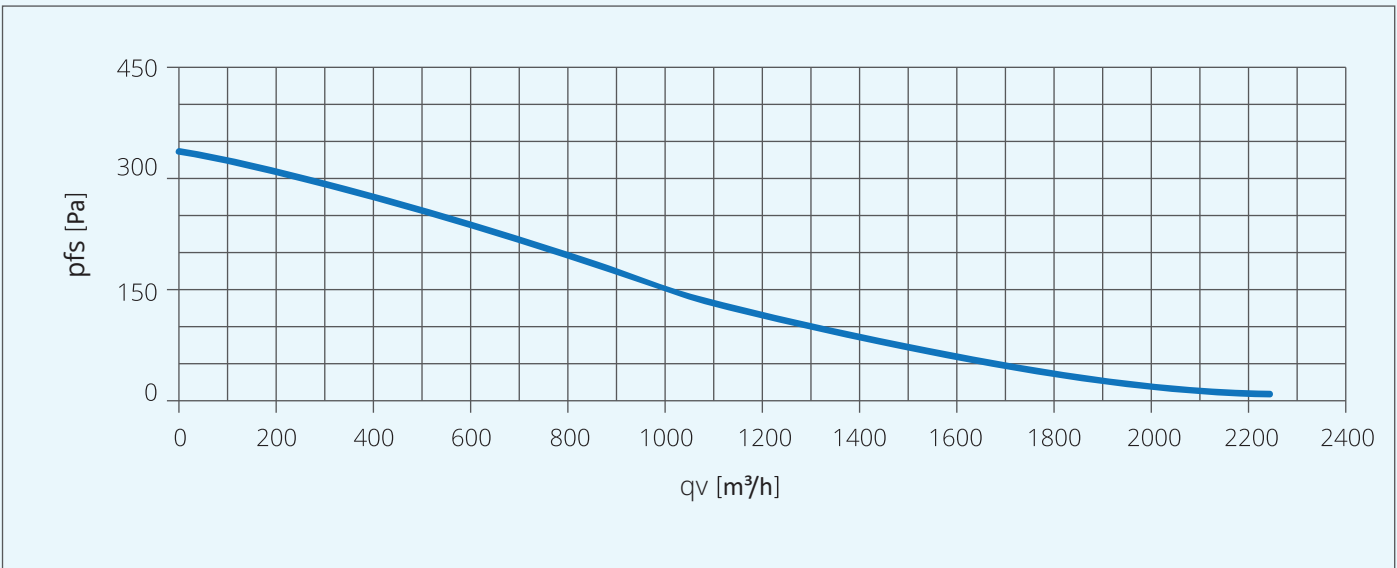
TECHNICAL GRAPHS

BRHR PLUS 5



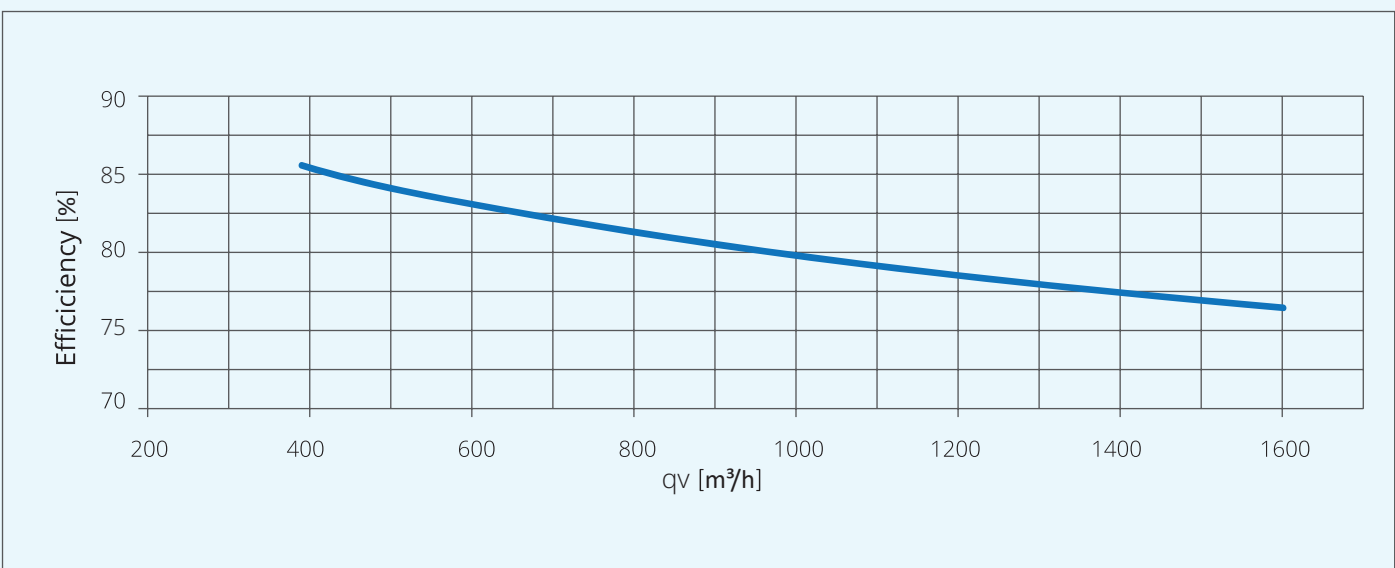
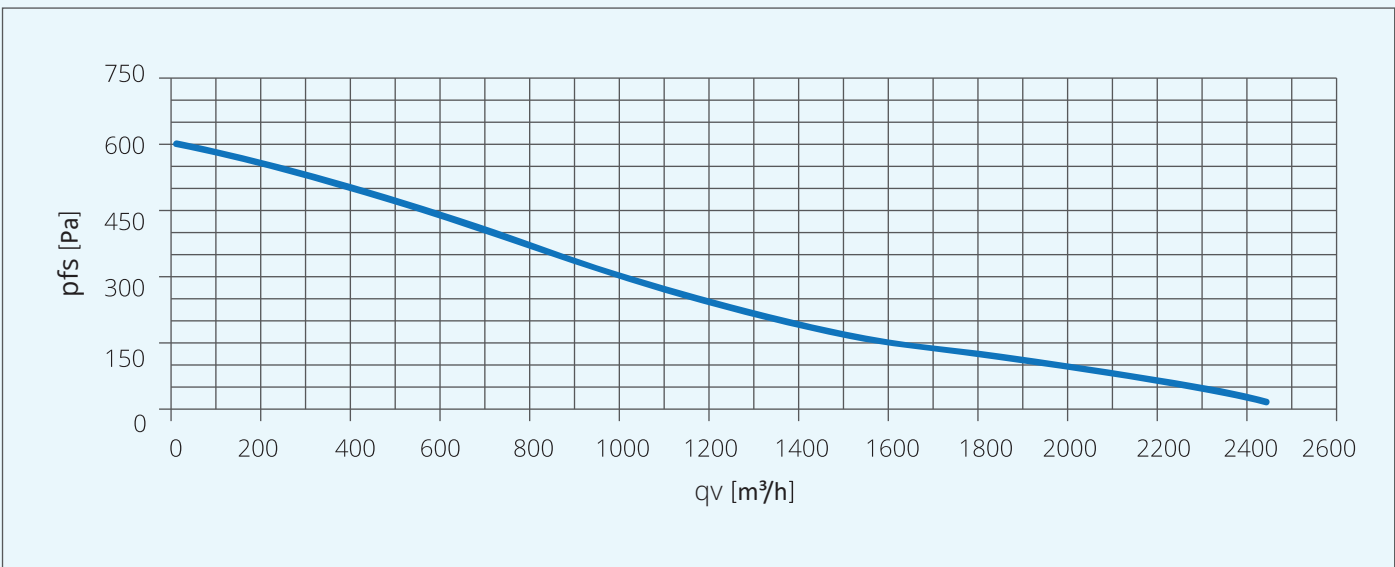
TECHNICAL GRAPHS

BRHR PLUS 10



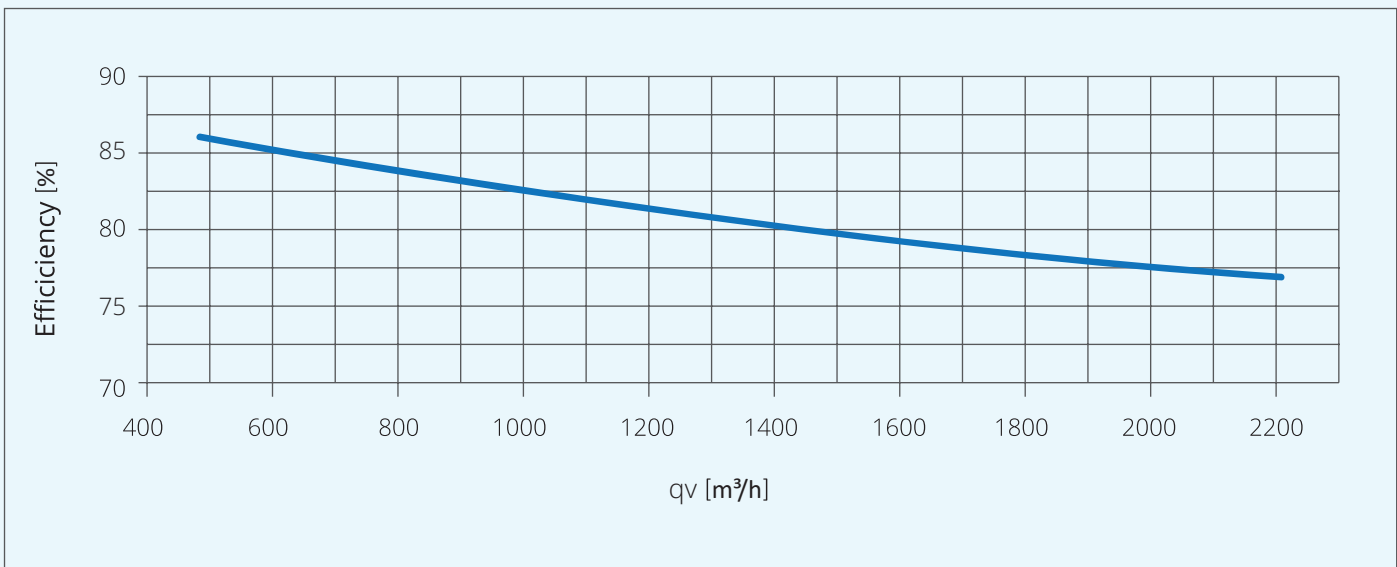
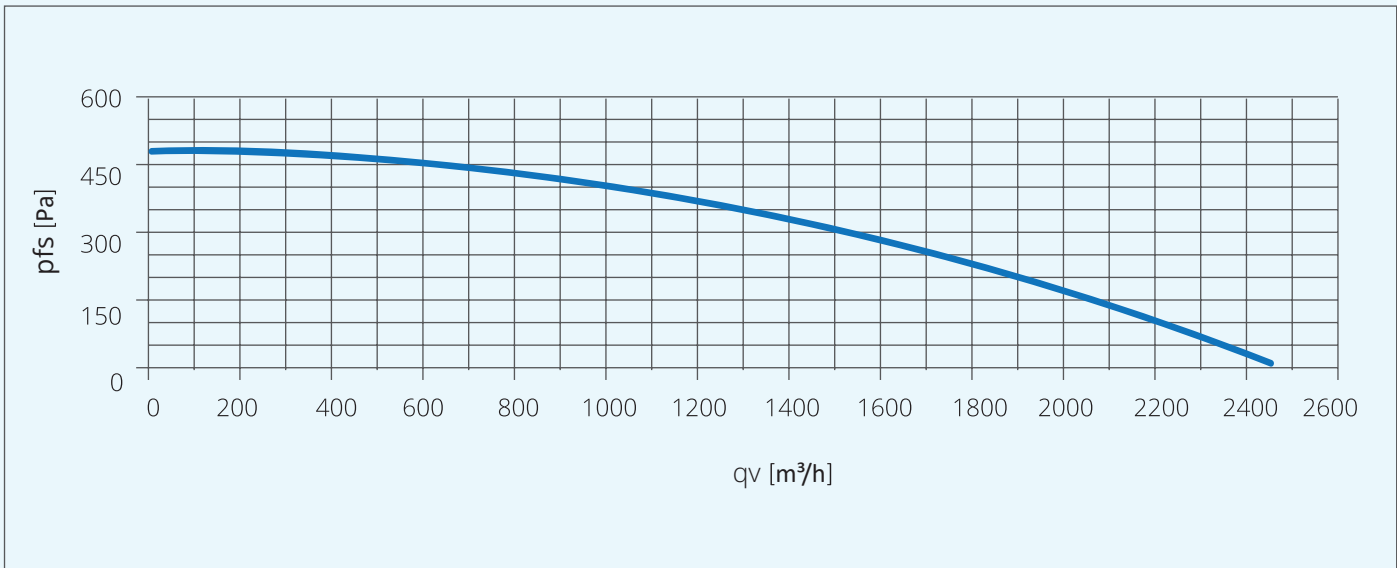
TECHNICAL GRAPHS

BRHR PLUS 15



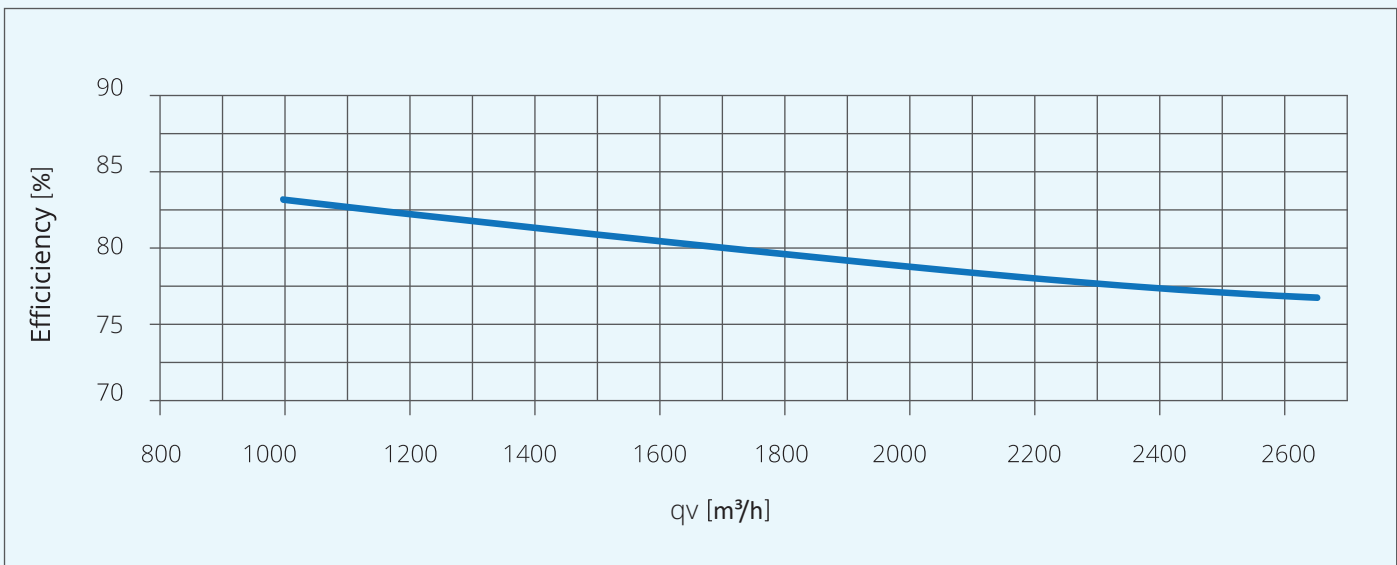
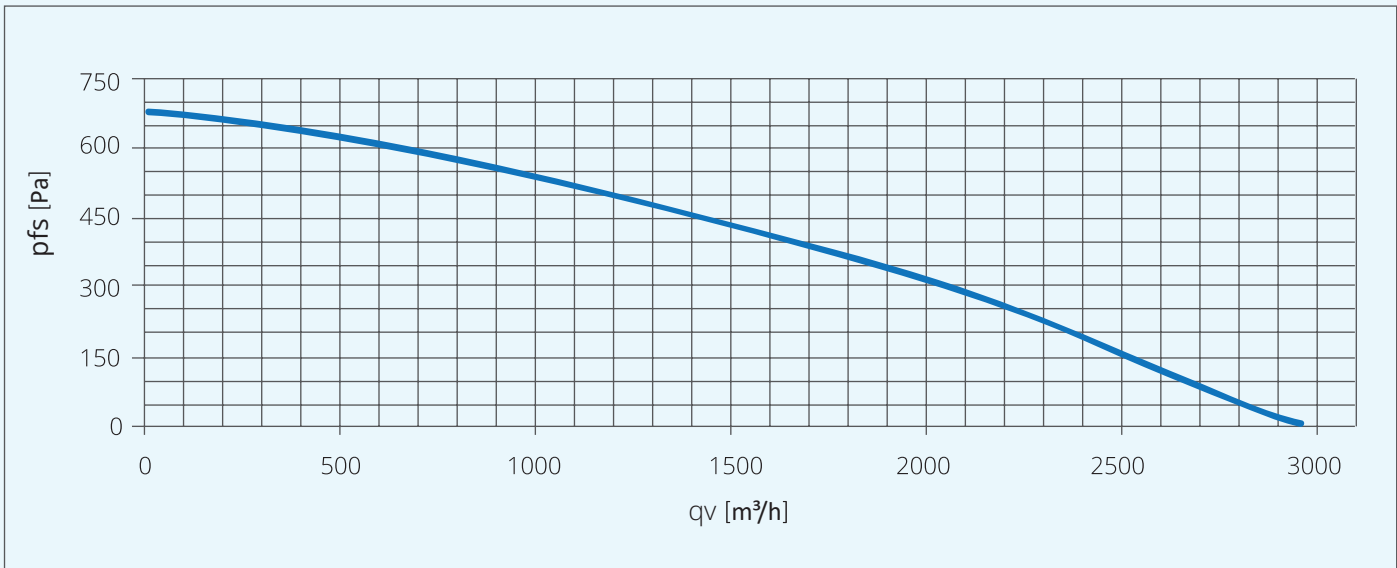
TECHNICAL GRAPHS

BRHR PLUS 20



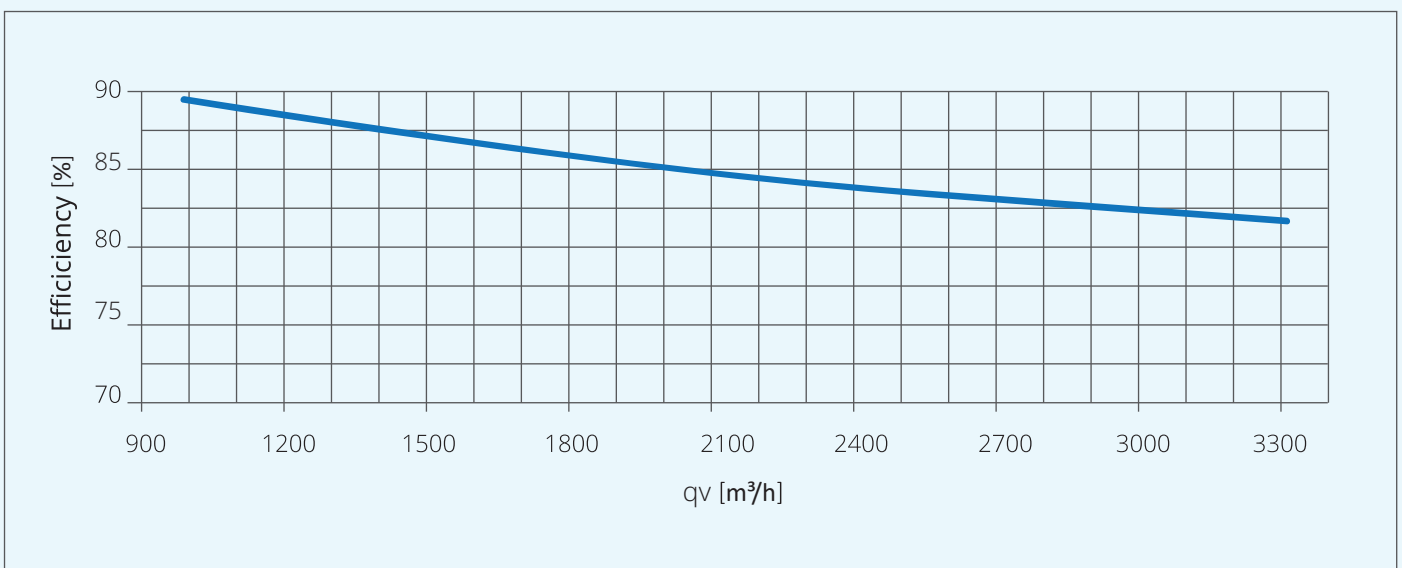
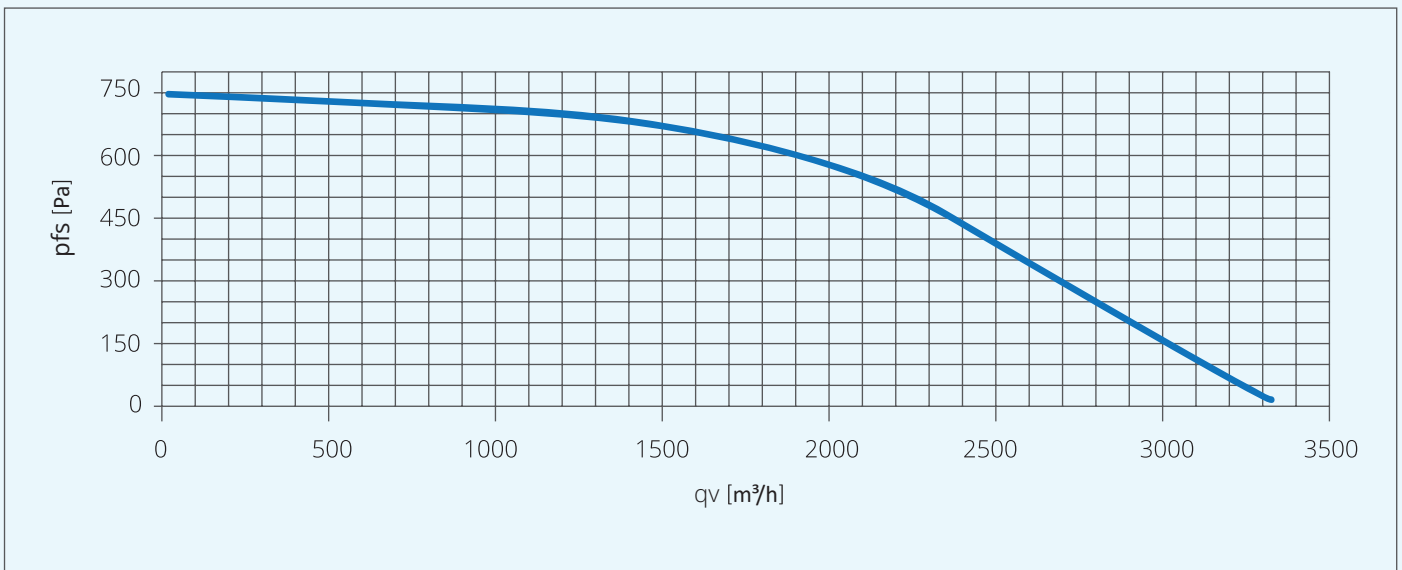
TECHNICAL GRAPHS

BRHR PLUS 25






TECHNICAL GRAPHS

BRHR PLUS 30



CONTROL FEATURES

BSK heat recovery units can come with different control panel options. Depending on the model you want there may be some functions not available, or different. The manual control panel offers essential features with simple control options. Boost mode and free-cooling mode is automated however the set temperature for free cooling is predefined and cannot be changed by users. Digital control panel offers extended controlling options and supports more accessories to be connected. You can also choose to have a Wi-Fi enabled digital control panel and use our new mobile application to gain access to all the controlling options and can control your device from anywhere.

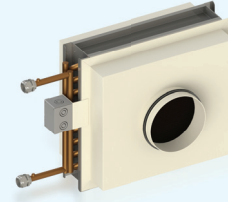
	 Manual Control Panel	 Digital Control Panel	 Mobile Application
Fan level control	•	•	•
Individual Fan control		•	•
Humidity control *	Analog sensor	Digital sensor	Digital sensor
Boost mode	•	•	•
Automatic by-pass damper *	•	•	•
By-pass damper control (on / off)		•	•
F7 Pollen filters *	•	•	•
Filter information (Sensor based) *	Analog sensor	Digital sensor	Digital sensor
Filter information (Time based)		•	•
Fresh air temperature	•	•	•
Return air temperature *		•	•
Pre-heater (on / off) *	•	•	•
Heating coil (on / off) *		•	•
Heating coil (proportional control) *		•	•
Electric after heater		•	•
CO2 control *		•	•
ModBus connection		•	•
Weekly programing		•	•
Wireless control			•
Airflow control *			•
Use statistics			•

*** Optional

ACCESSORIES

WATER HEATER

Duct type water coils can be equipped, if there is a hot water system present, to the supply air vent in order to further heat the incoming air for a precise control of temperature.

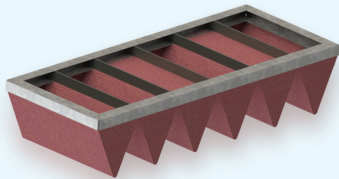


PRE-HEATER

For subzero weather conditions, an electrical pre-heater should be equipped to prevent ice forming inside the unit. This electrical pre-heater connects to the BSK Heat Recovery Unit's fresh air intake vent and can be controlled from the digital control panel. This electrical heater can also be equipped as an after heater if hot water access is not possible for a water heater.

CO₂ SENSOR

CO₂ sensor allows automatic control for ventilation rate in crowded venues or houses with fireplaces. When the CO₂ levels rise, the BSK Heat Recovery Unit increases ventilation rate to supply the best air quality.



F7 FILTER

Standard G2 filters offer good protection against dust and common particles, however additional protection from pollens and other smaller particles may be needed. F7 grade pollen filters are available upon request.

SILENCER

BSK Heat Recovery Units are designed to be as quiet as possible; however duct type silencer or the flexible silencer can be added to the supply vent to reduce the noise levels even further.



PLC CONTROLLER

We can add a PLC controller solution for your special use cases when additional control or functions may be needed.



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