



BSK SCHOLAR CLASSROOM TYPE HEAT RECOVERY DEVICE



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General Information



Classrooms
Meeting Rooms
Offices

BSK Scholar high efficiency heat recovery devices are specially designed for classrooms, meeting rooms or offices without existing ventilation systems.



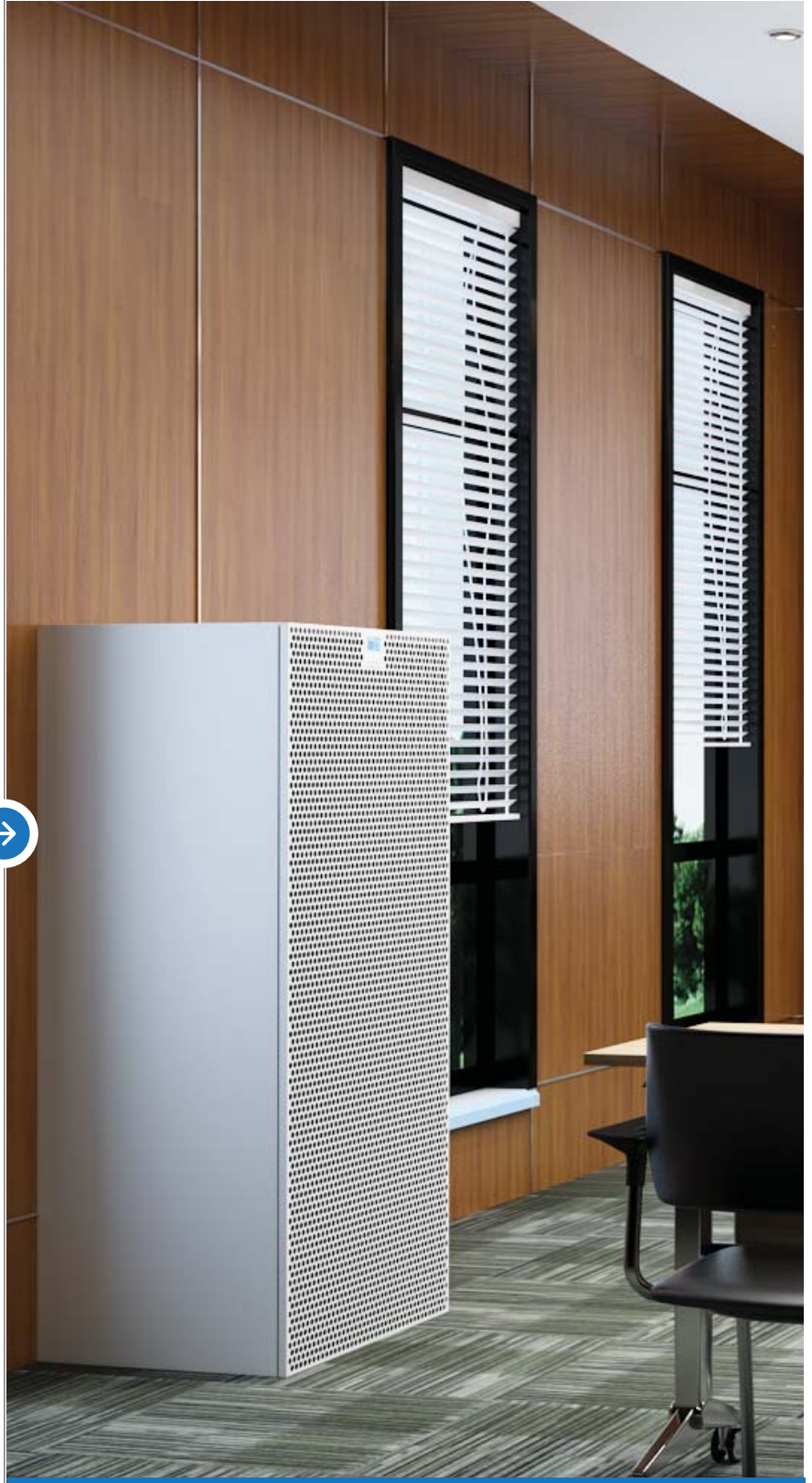
High capacity
air flow

Our devices provide 100% fresh air to the area and exhausting the dirty air. Fresh air is passed through a double filter system which get rids of dust, pollen, spores and other harmful particles.



%100
Fresh Air

Thanks to the highly efficiency counter flow heat exchanger inside, the heat energy of the exhausted air is used to heat up the fresh air taken from outside. No energy is wasted for this passive heating process. In this way, you can significantly decrease your heating costs against conventional ventilation methods.



TECHNICAL DETAILS



FILTERS



EC FAN



HIGH EFFICIENCY
HEAT EXCHANGER



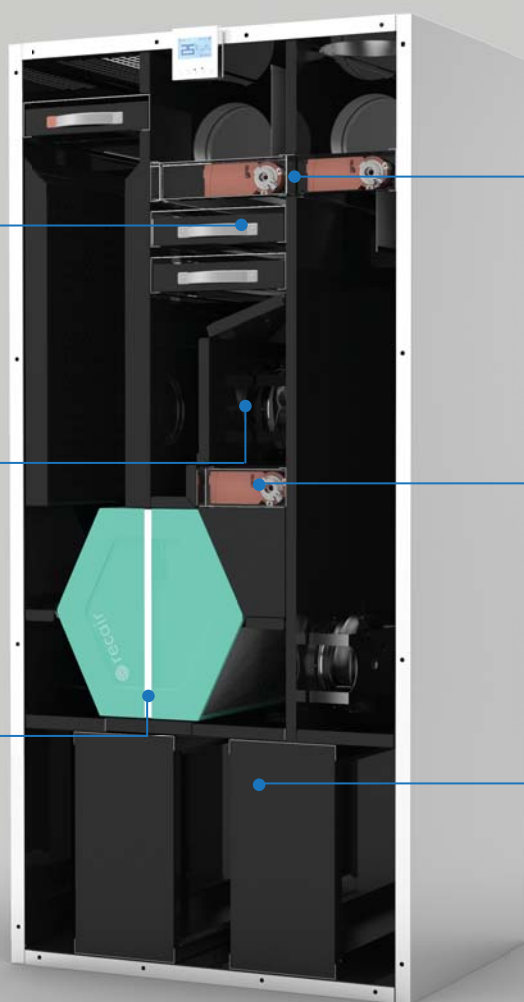
AIR DAMPER



BYPASS DAMPER



SILENCER



TECHNICAL DETAILS

1 CASING AND INSULATION

The casing of our devices is double-walled 0.7mm galvanized sheets filled with 25mm rock wool insulation material in order to keep the sound and heat insulation at the highest level. The outside as well as the inside surfaces of our devices are painted with electrostatic powder paint and deliver a long life, while providing a stylish and clean appearance.

2 FILTERS

Total of 3 filters are used in our devices to filter both the supply and exhaust air. M5 filter is used on the exhaust air to filter dust and protect the inside of the device. G4 and F7 filters used on the fresh air side can stop particles up to 1 micron (0.001mm) and filter allergens such as dust, spores and pollen that may come from outside. In addition, when the filters reach a certain filling rate, our devices give an automatic filter full warning, thanks to the differential pressure sensors that detect the pressure buildup of filters.

3 CARBON DIOXIDE (CO₂) SENSOR

Thanks to the carbon dioxide (CO₂) sensor on the exhaust air side, the CO₂ level of the environment can be continuously monitored and the device can automatically control the fans if it reaches a set value, which can be easily changed via the digital control panel.

4 AIR AND BY-PASS DAMPERS

There are 3 dampers in our devices, 2 of which is for blocking the outside air while the device is off and 1 for free-cooling. Thanks to the by-pass duct and damper, when the indoor and outdoor temperatures are close to each other, it is possible to by-pass the heat exchanger via the bypass channel to enter free cooling mode. This feature is activated automatically when the set temperature is reached.



5 EC FANS

High efficiency EC fans are used in our devices. EC fans do not need frequency inverters like ordinary AC motors to be operated at the desired speeds, while consuming much less energy than their AC counterparts. Fans with reverse blade inclination on EC motors offer maximum performance thanks to the 3-dimensional blade curves, while minimizing the sound levels and providing a comfortable use.

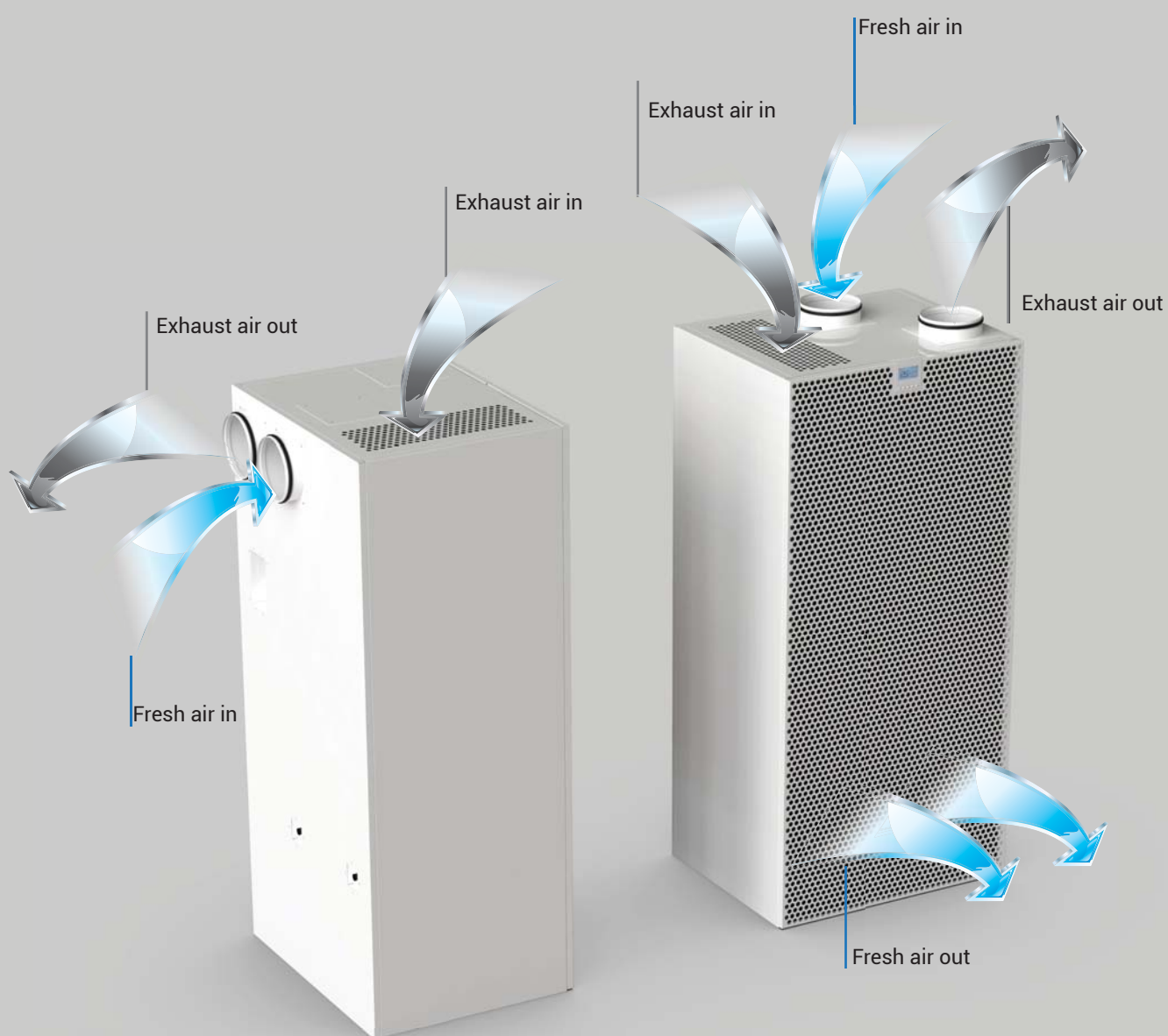
6 PLATE HEAT EXCHANGER

High efficiency counter flow heat exchanger is the core of our units, where heat recovery takes place. Heat is transferred between exhaust air and fresh air, without mixing them, so it can supply 100% fresh air. Plastic plates are easy to wash and offer longevity. In exchangers operating with the counter flow heat transfer principle, thermal efficiencies of up to 95% between hot and cold air can be achieved.

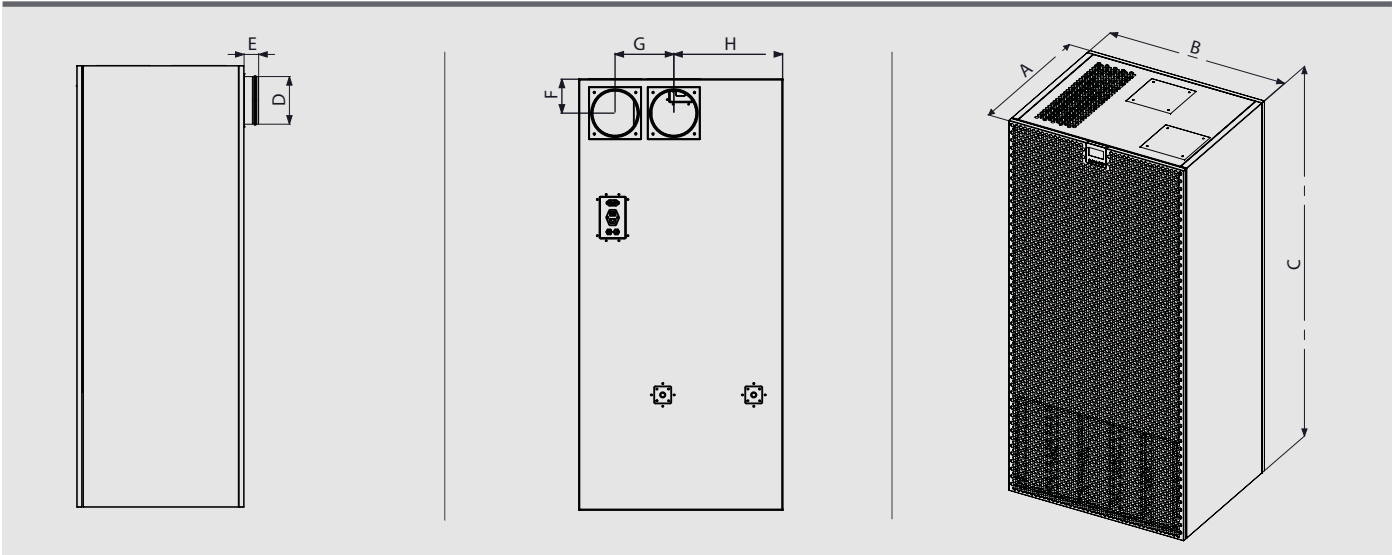
7 SILENCER

The silencer section at the fresh air outlet of our devices allows silent operation which provides a quiet working environment for classrooms or offices.

WORKING PRINCIPLE

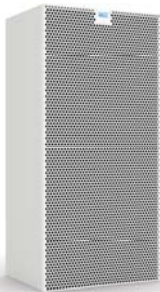


DEVICE DIMENSIONS

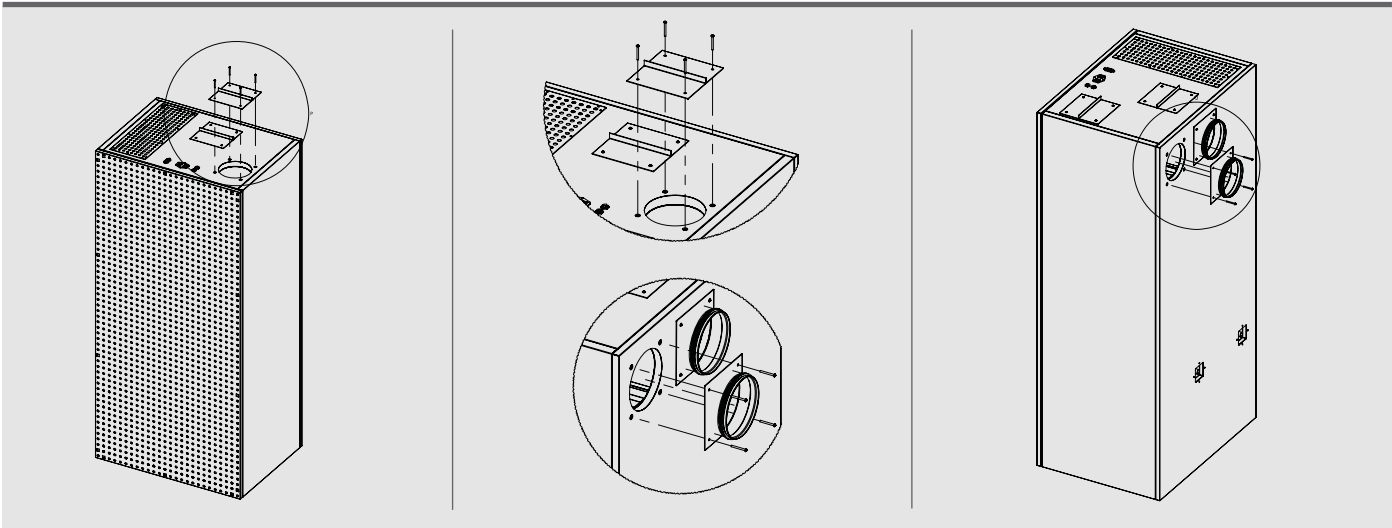


	A	B	C	D	E	F	G	H
Scholar 500	575	780	1650	160	55	130	235	417
Scholar 700	625	780	1650	180	55	130	225	417

	BSK Scholar 500	BSK Scholar 700
Max Flow Rate	500 m³/h	700 m³/h
Max Thermal Efficiency	95%	
Supply Voltage	230V	
Max Electrical Power	170W	320W
Dimensions (DxWxH) (mm)	575x780x1650 mm	625x780x1650 mm
Weight	140kg	160kg
Spigot Diameter	160 mm	180 mm
Condensation Drain Diameter	19mm	
Operating Temperatures	-20 C to 60 C	



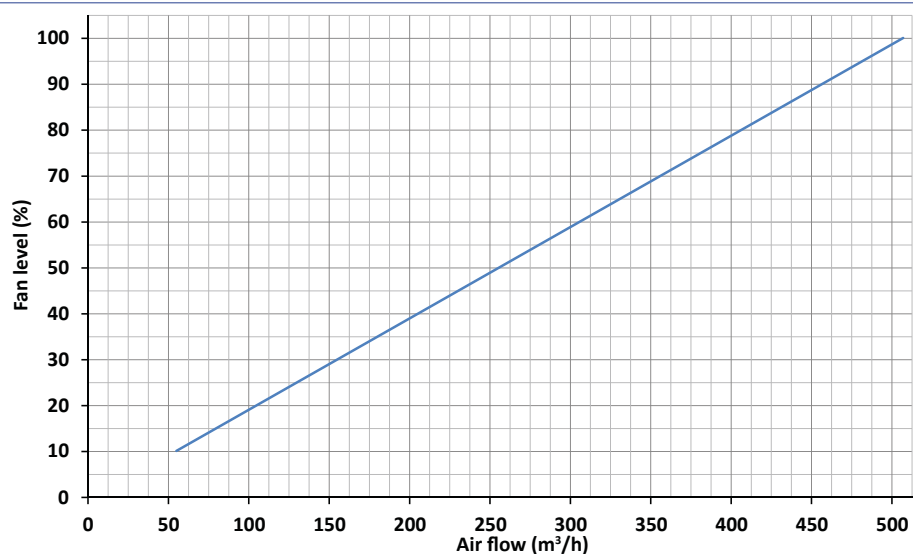
The outside air inlet and outlet of our devices are designed to be easily used in any application area and easily changed in order to suit different connection needs. You can lean the device in front of a window or wall and connect directly from the back, or change the position of the air outlets so that the connection can be made from the top.



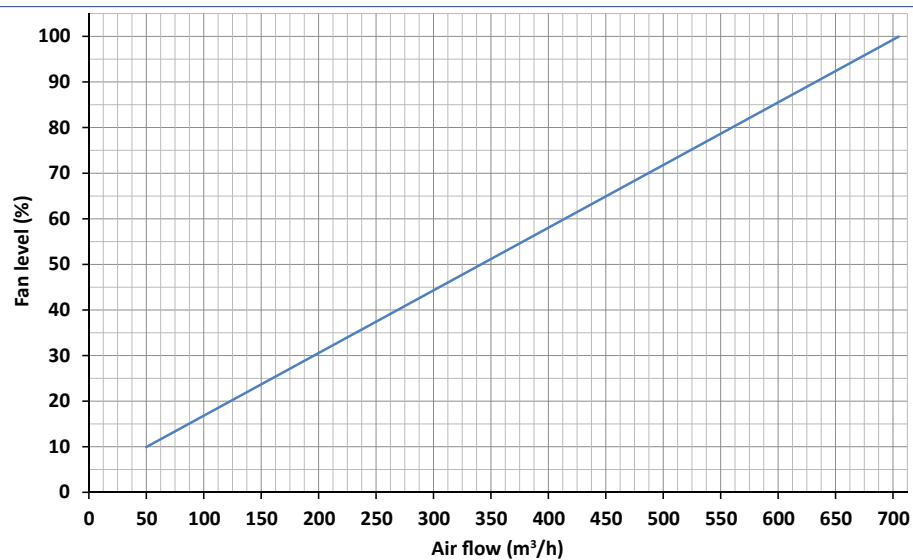
PERFORMANCE GRAPH



BSK Scholar 500



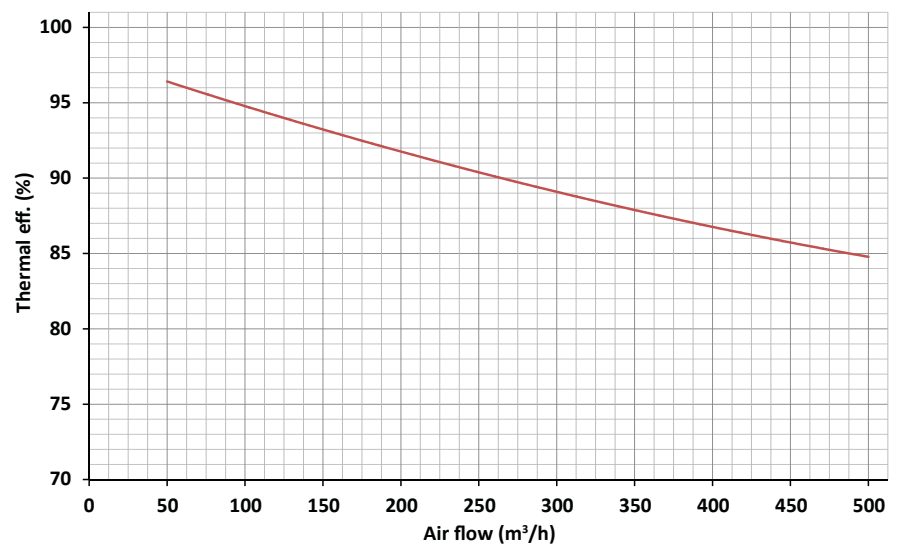
BSK Scholar 700



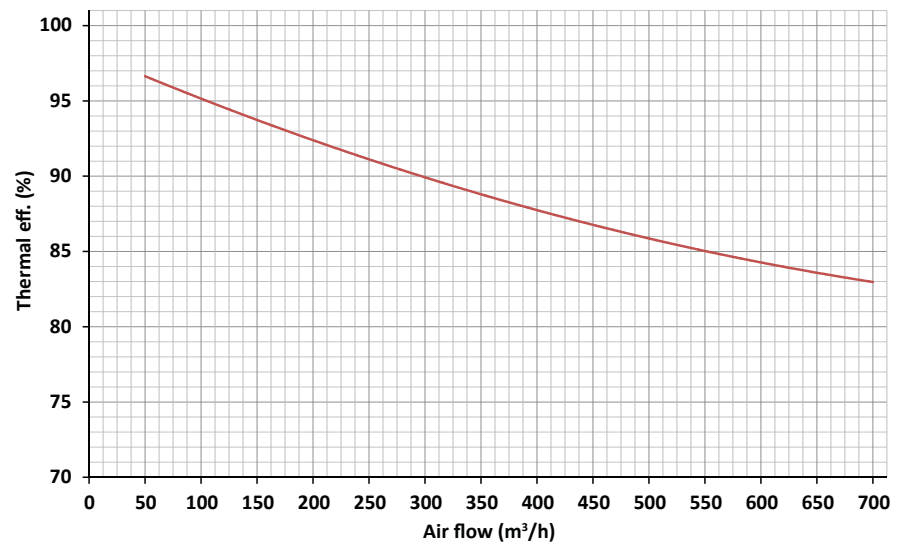
THERMAL EFFICIENCY GRAPH



BSK Scholar 500



BSK Scholar 700

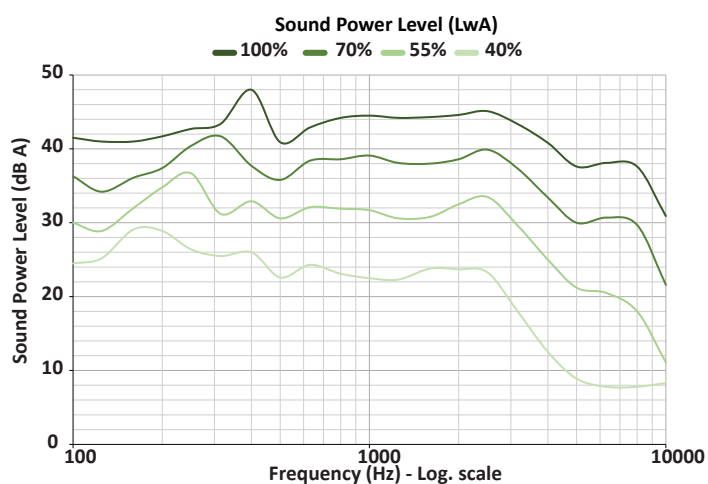


SOUND FREQUENCY GRAPH



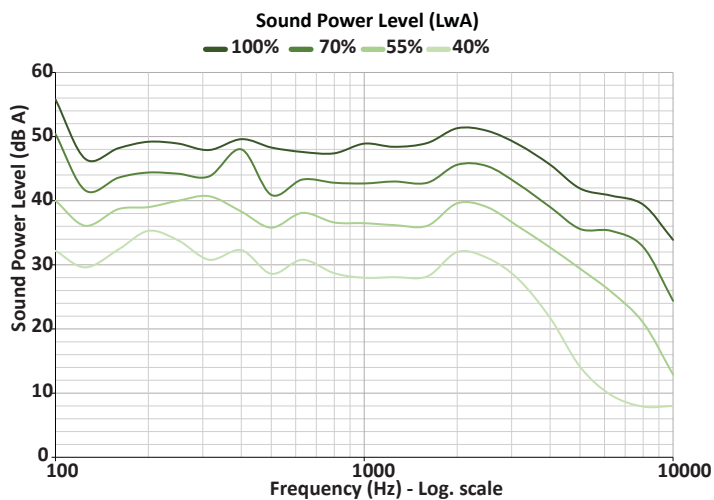
BSK Scholar 500

Sound Level (dB)	40%	55%	70%	100%
Sound Power (LwA)	37,2	44,5	50,6	56,1
Sound Pressure (LpA 1m)	26,2	33,5	39,6	45,1
Sound Pressure (LpA 3m)	16,6	23,9	30,1	35,5



BSK Scholar 700

Sound Level (dB)	40%	55%	70%	100%
Sound Power (LwA)	43,3	50,4	57	62,1
Sound Pressure (LpA 1m)	32,3	39,4	46	51,1
Sound Pressure (LpA 3m)	22,7	29,8	36,4	41,5





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