Efficient and compact heat recovery units for residential and service sector installations

EC TECHNOLOGY

Magnelis® An ArcelorMittal product

BY-PASS

REB/EC

- Compact design
- Easy installation and maintenance
- Interchangeable nozzles
- Low noise level
- Energy efficiency
- Finished in Magnelis® C5 steel according to ISO 12944

Thermal comfort and efficient ventilation in indoor spaces

Interchangeable nozzles

The possibility of interchanging nozzles makes it easy to integrate the equipment in any installation.

Maximum durability

The equipment's steel sheet is manufactured out of Magnelis® C5 steel, which guarantees high resistance to corrosion in demanding environments, thereby extending the equipment's service life. To ensure that the equipment is well-protected from water in outdoor applications, the installation of a canopy is recommended.

Energy savings

EC Technology motors with IE5 efficiency minimise consumption by adjusting the speed to the real demand of the environment, thereby reducing the energy cost, reducing maintenance and extending their service life.

Heat recovery units are essential for residential and commercial installations, given that they contribute to the thermal comfort, indoor air quality and energy sustainability of buildings.

Compact design

Created for installations with space limitations, their compact design facilitates integration in false ceilings, in technical rooms or on roofs.

Easy installation and maintenance

Equipped with a pre-configured control for direct start when the power is connected. Access through the inspection cover allows maintenance tasks to be performed quickly, such as cleaning the turbine or replacing the filters.

Low noise level

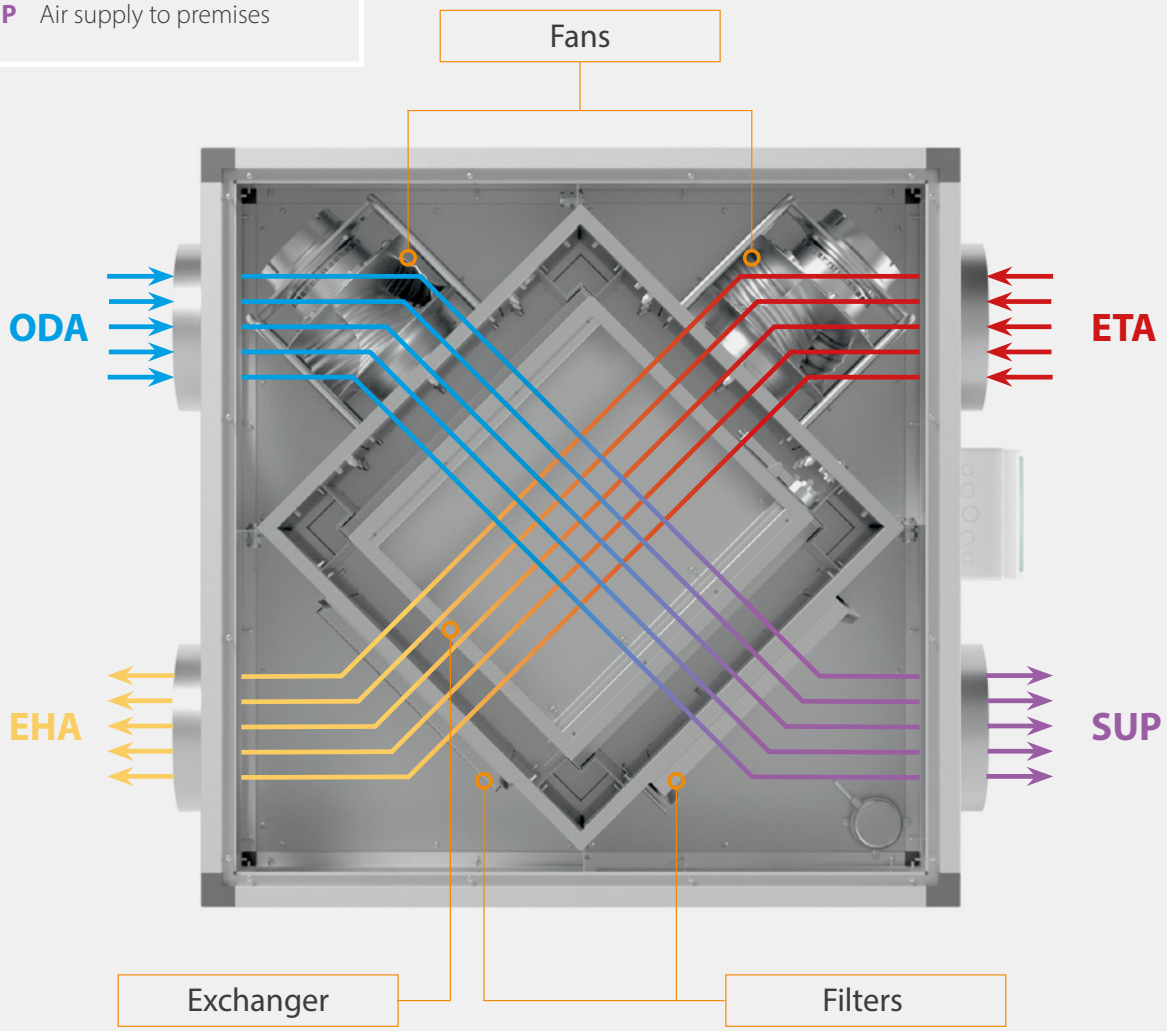
The 25-mm thick acoustic casing, manufactured out of high-quality insulation materials, has been designed specifically to reduce the transmission of noise.

Heat recovery units

SODECA's heat recovery units are designed to guarantee optimum indoor air quality in all types of buildings.

Every unit includes different filtration configurations, allowing them to be adapted to the specific requirements of each space and application.

ODA Fresh external air
EHA Exhaust air outlet
ETA Air extraction from premises
SUP Air supply to premises

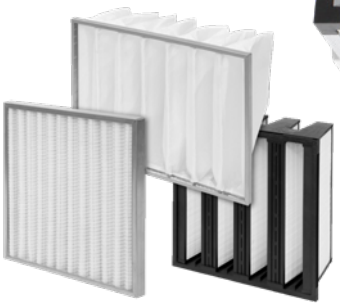


Removable filters

The REB/EC incorporates removable filters in two stages to assure optimum air quality:

Supply:
F6 + F8 or F7 + F9

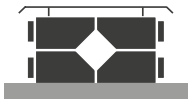
Return:
F6 or F7



Types of installation

In false ceilings

Low-profile equipment with access to components through the side or base.



On the roof

Equipment for outdoor operation, with lateral access to components. They may require accessories such as canopies, rain shields or other elements.

In technical rooms

Compact equipment with lateral access to components.

Heat exchanger

The heat exchanger component in the recovery unit transfers heat from the exhaust air extraction circuit to the external clean air supply circuit.

The greater the thermal efficiency of the exchanger, the less need there will be to supply additional air conditioning.

Its geometry of channels guarantees effective heat transfer between airflows, minimising load losses.

Resistance to corrosion

Manufactured out of MAGNELIS® anti-corrosive steel sheet, classified as C5 ACCORDING TO ISO 12944 guaranteeing that the unit can be used in areas with very aggressive environmental conditions

Control system and integrated by-pass

Heat recovery units equipped with an automatic control that allows advanced management of the equipment, including time programming, environmental control and compatibility with BMS systems.

They also include an IP65 control panel, which **manages their operation automatically and protects the electrical components from dust and humidity.**

BY-PASS

The equipment includes a by-pass system, which allows manual or automatic control.

This functionality allows the air flow to be completely or partially diverted around the heat exchanger, thereby avoiding thermal energy recovery when it is not necessary.

Automatic control

Main functions of automatic control in heat recovery units:

- Time programming and Comfort, ECO and Night modes.
- Flow control based on CO_2, temperature and humidity levels.
- Connection of the unit to a centralised control system (BMS), normally using the MODBUS RTU protocol.
- Remote control with a built-in LCD screen.
- Control of status of the supply filters.

IP65 control panel

The equipment incorporates an external control panel with IP65 protection, designed to ensure a safe and long-lasting installation.

It includes an isolator switch for performing maintenance tasks, as well as accessible terminals that allow simple, quick and reliable electrical connections.

REB/EC

Compact heat recovery units for residential and commercial installations

High-efficiency compact heat recovery units with crossflow exchanger, EC Technology motors, automatic control, and built-in by-pass.

Common features:
- EC Technology fans adjustable 0-10 V, with high-efficiency backward-curved impellers.
- Sensitive, high efficiency (>73%), Eurovent certified cross-flow heat exchanger.
- Interchangeable nozzles to adapt them to the installation.
- Condensate tray and drainage connection.
- High-efficiency filtration in supply (F6+F8 or F7+F9) and in extraction (F6 or F7).
- Access panels for filter removal for maintenance.
- 25 mm rockwool insulation on the bottom and top panels, and polyethylene on the side panels.
- Motorised BY-PASS damper.

Control panel:
- Built-in electrical control panel (IP65).
- Integrated control system compatible with MODBUS RTU.
- Built-in maintenance disconnector switch.
- Temperature sensors in supply and return air.
- Condition check of outlet filters with pressure switch.
- Wired remote control with LCD screen (up to 30 m).
- Control for free cooling through motorised BY-PASS.
- Possibility to connect up to 30 recovery units simultaneously.

Finish:
- High quality aluminium profile structure with external coating in category C5 anti-corrosive Magnelis sheet steel.
- All models can be installed outdoors as long as they have a protective roof cover.

On request:
- CO_2 sensor.

Available versions:
- REB/EC-H: Horizontal heat recovery unit with F6+F8 or F7+F9 filtration stages.
- REB/EC-V: Vertical heat recovery unit with F6+F8 or F7+F9 filtration stages.

Order code

REB/EC	**–**	***V***	**–**	***500***	**–**	***F6+F8***
REB/EC: Compact heat recovery units for residential and commercial installations		V: Vertical H: Horizontal		Modelo		Filtros: F6 + F8 F7 + F9

Common features

Impulsion filter (ODA)	F6+F8 / F7+F9
Extraction filter (ETA)	F6 / F7
Fan type	PLUG FAN EC with backward curved impeller
Free cooling function by means of a motorised by-pass	YES
Insulation	25 mm rock wool in bottom and top panels, and polyethylene in side panels
Condensate exhaust	YES
Pressure switch for checking the condition of inlet filters	YES
Safety and maintenance switch	YES
Built-in control panel	YES
Heat recovery type	Sensitive

Erp. (Energy Related Products)

Information on Directive 2009/125/EC can be downloaded from the SODECA website or the QuickFan selector programme.

Technical characteristics

Model	Nominal flow rate[3] (50 Pa)	Nominal flow rate[3] (150 Pa)	Recovery unit efficiency[1] (%)	Installed power (kW)	Voltage 50/60 Hz (V)	Maximum admissible current (A)	Sound pressure level[2] dB (A)	Approx. weight (Kg)
REB/EC-500	565	520	74	0.17 x 2	1/200-240	1.70-1.45 x 2	43	66
REB/EC-700	725	700	74	0.17 x 2	1/200-240	1.70-1.45 x 2	43	73
REB/EC-1000	1140	1055	74	0.50 x 2	1/200-277	2.50-1.80 x 2	41	98
REB/EC-1500	1690	1565	74	0.50 x 2	1/200-277	2.50-1.80 x 2	41	119
REB/EC-2000	2160	2020	74	0.50 x 2	1/200-277	2.50-1.80 x 2	40	214
REB/EC-2300	2440	2325	74	0.78 x 2	1/200-277	4.00-2.90 x 2	44	214
REB/EC-2800	3040	2885	73	1.30 x 2	1/200-277	6.60-4.80 x 2	47	225
REB/EC-3800	4050	3870	74	1.30 x 2	1/200-277	6.60-4.80 x 2	46	261
REB/EC-4500	4955	4690	74	1.35 x 2	1/200-277	6.80-5.00 x 2	44	266
REB/EC-5500	5885	5700	73	2.50 x 2	3+N/380-480	4.00-3.20 x 2	50	298
REB/EC-6500	6765	6595	73	3.30 x 2	3+N/380-480	5.40-4.20 x 2	52	307

1. Wet efficiency for nominal airflow (50 Pa) with F6+F8 filters, outdoor conditions -5°C/ 80% RH and indoor conditions 20°C/50% RH.
2. Radiated sound pressure level in dB(A) at 3 m distance at full speed.
3. F6 configuration.

Filter characteristics

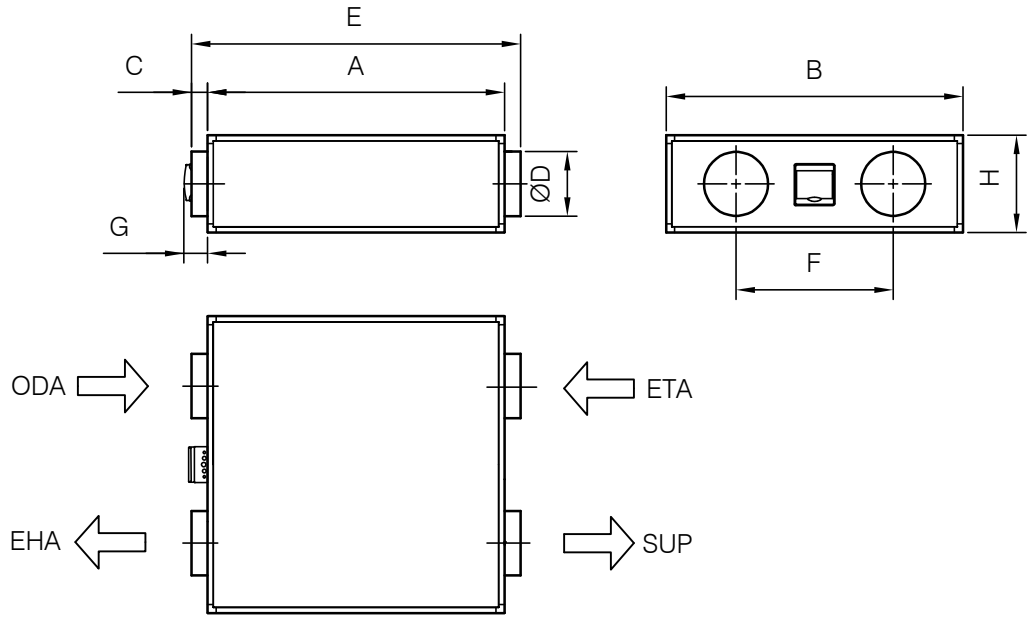
Filters EN 779	ISO 16890	
	ISO ePM_1	ISO ePM_{10}
F6	-	70%
F7	55%	-
F8	65%	-
F9	80%	-

Lower filter extraction in models 500 to 1500

Side filter extraction in models 2000 to 6500

Dimensions mm

REB/EC-H

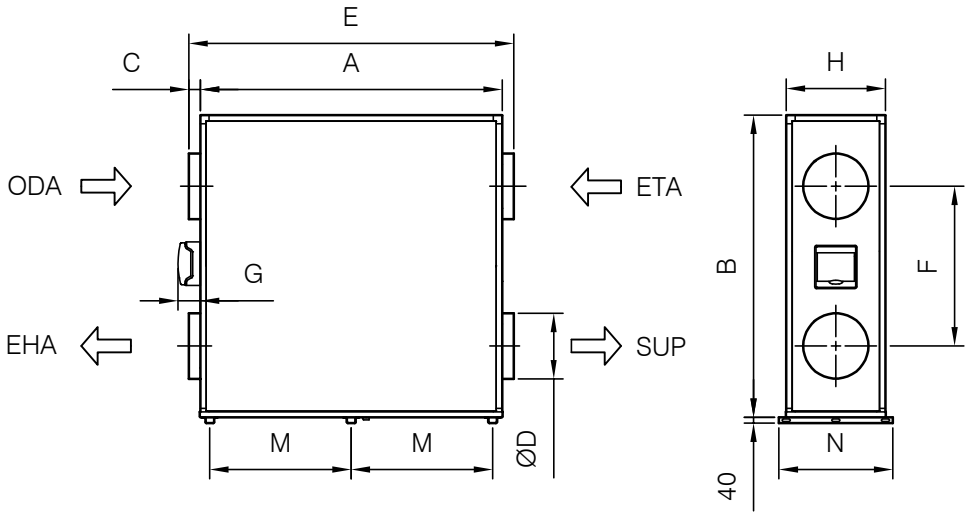


	A	B	C	D	E	F	G	H
REB/EC-H-500	1000	1000	50	150	1100	600	120	285
REB/EC-H-700	1000	1000	50	150	1100	600	120	380
REB/EC-H-1000	1100	1100	50	250	1200	600	120	435
REB/EC-H-1500	1150	1150	50	250	1250	600	120	510
REB/EC-H-2000	1650	1650	76	315	1802	938	120	510
REB/EC-H-2300	1650	1650	76	315	1802	938	120	510
REB/EC-H-2800	1650	1650	76	315	1802	938	120	510
REB/EC-H-3800	1650	1650	76	450	1802	938	120	700
REB/EC-H-4500	1650	1650	76	450	1802	938	120	700
REB/EC-H-5500	1650	1650	76	450	1802	938	120	860
REB/EC-H-6500	1650	1650	76	450	1802	938	120	860

ODA: Fresh outdoor air / SUP: Air supply to the premise / EHA: Exit of exhaust air / ETA: Air extraction from premises

Dimensions mm

REB/EC-V



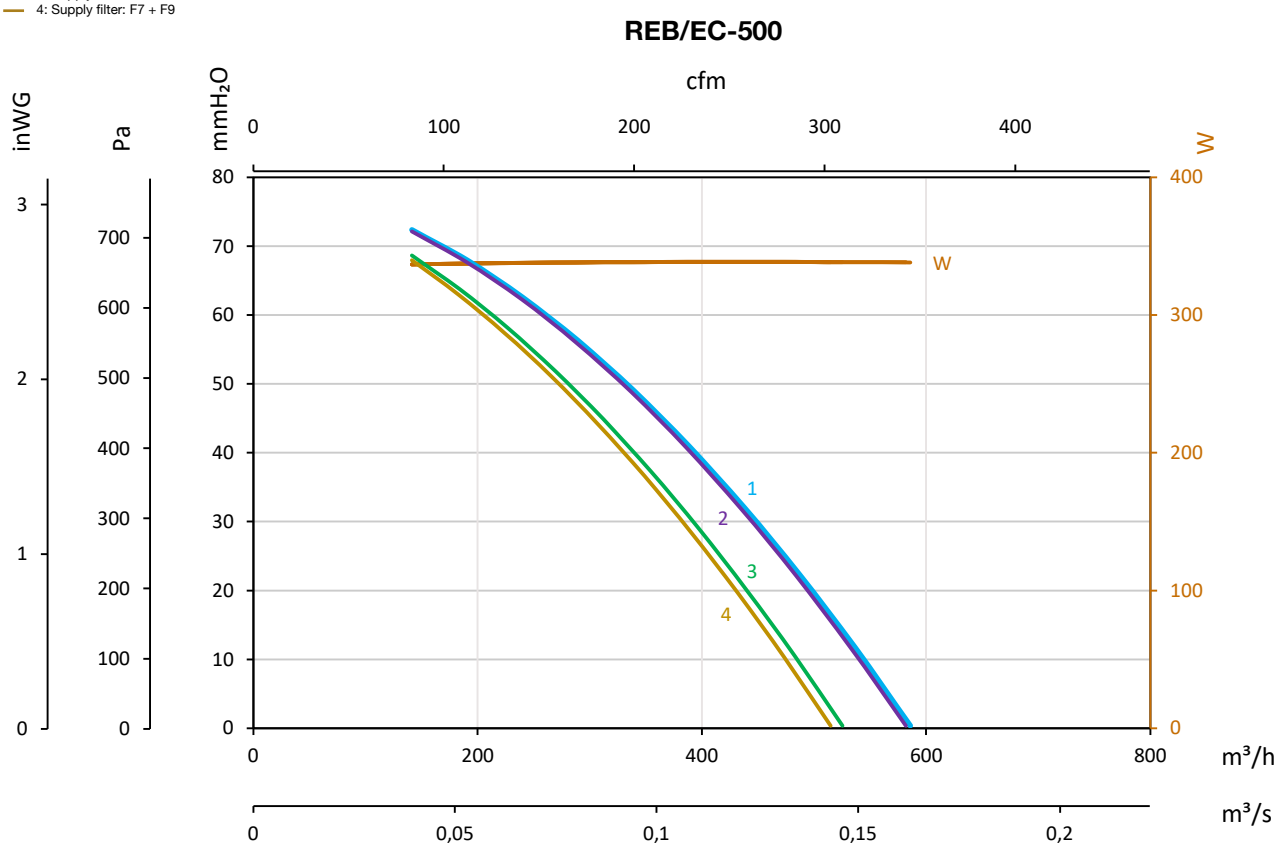
	A	B	C	D	E	F	G	H	M	N
REB/EC-V-500	1000	1000	50	150	1100	600	120	285	439	385
REB/EC-V-700	1000	1000	50	150	1100	600	120	380	439	480
REB/EC-V-1000	1100	1100	50	250	1200	600	120	435	489	535
REB/EC-V-1500	1150	1150	50	250	1250	600	120	510	514	610
REB/EC-V-2000	1650	1650	76	315	1802	938	120	510	759	610
REB/EC-V-2300	1650	1650	76	315	1802	938	120	510	759	610
REB/EC-V-2800	1650	1650	76	315	1802	938	120	510	759	610
REB/EC-V-3800	1650	1650	76	450	1802	938	120	700	759	800
REB/EC-V-4500	1650	1650	76	450	1802	938	120	700	759	800
REB/EC-V-5500	1650	1650	76	450	1802	938	120	860	759	960
REB/EC-V-6500	1650	1650	76	450	1802	938	120	860	759	960

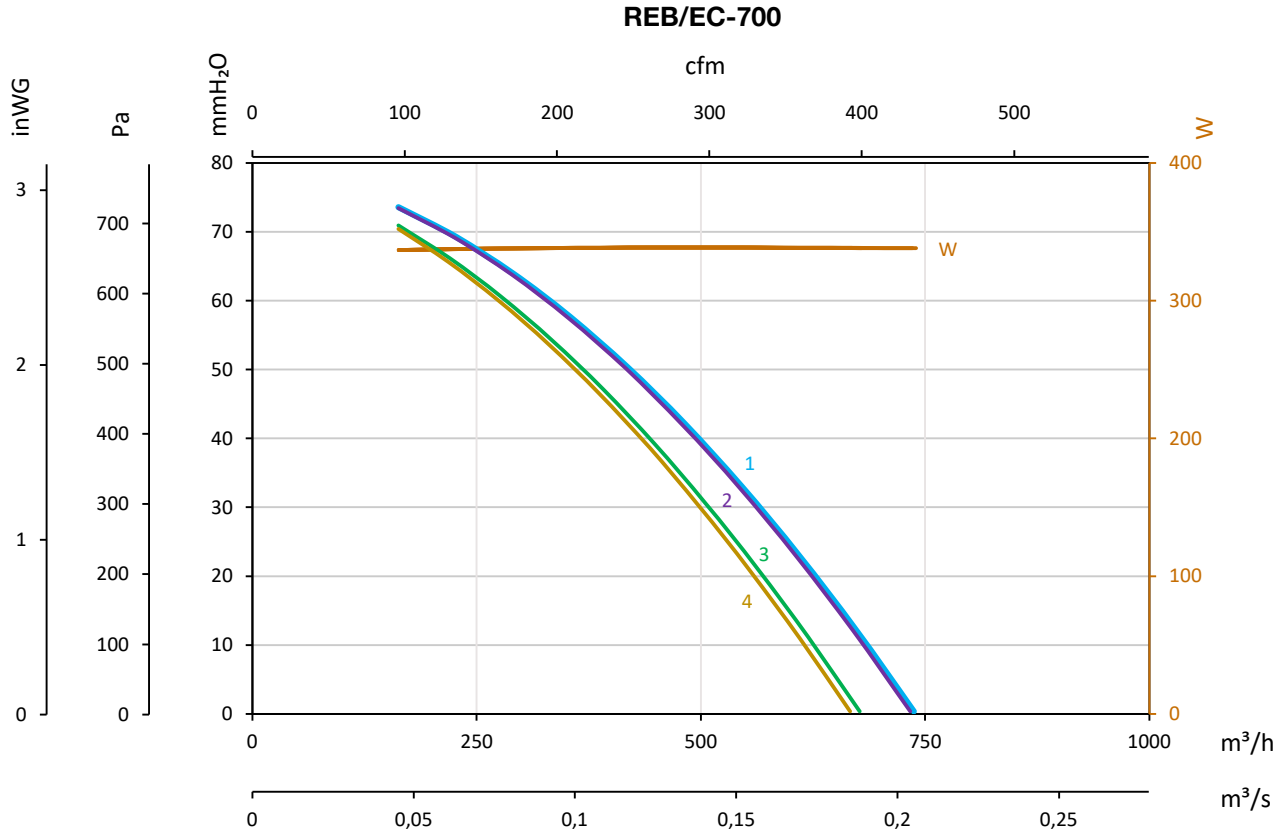
ODA: Fresh outdoor air / SUP: Air supply to the premise / EHA: Exit of exhaust air / ETA: Air extraction from premises

Characteristic curves

Q= Flow rate in m³/h, m³/s and cfm Pe= Static pressure in mm H_2O, Pa and inwg W= Electrical power

1: Extraction filter: F6
2: Extraction filter: F7
3: Supply filter: F6 + F8
4: Supply filter: F7 + F9





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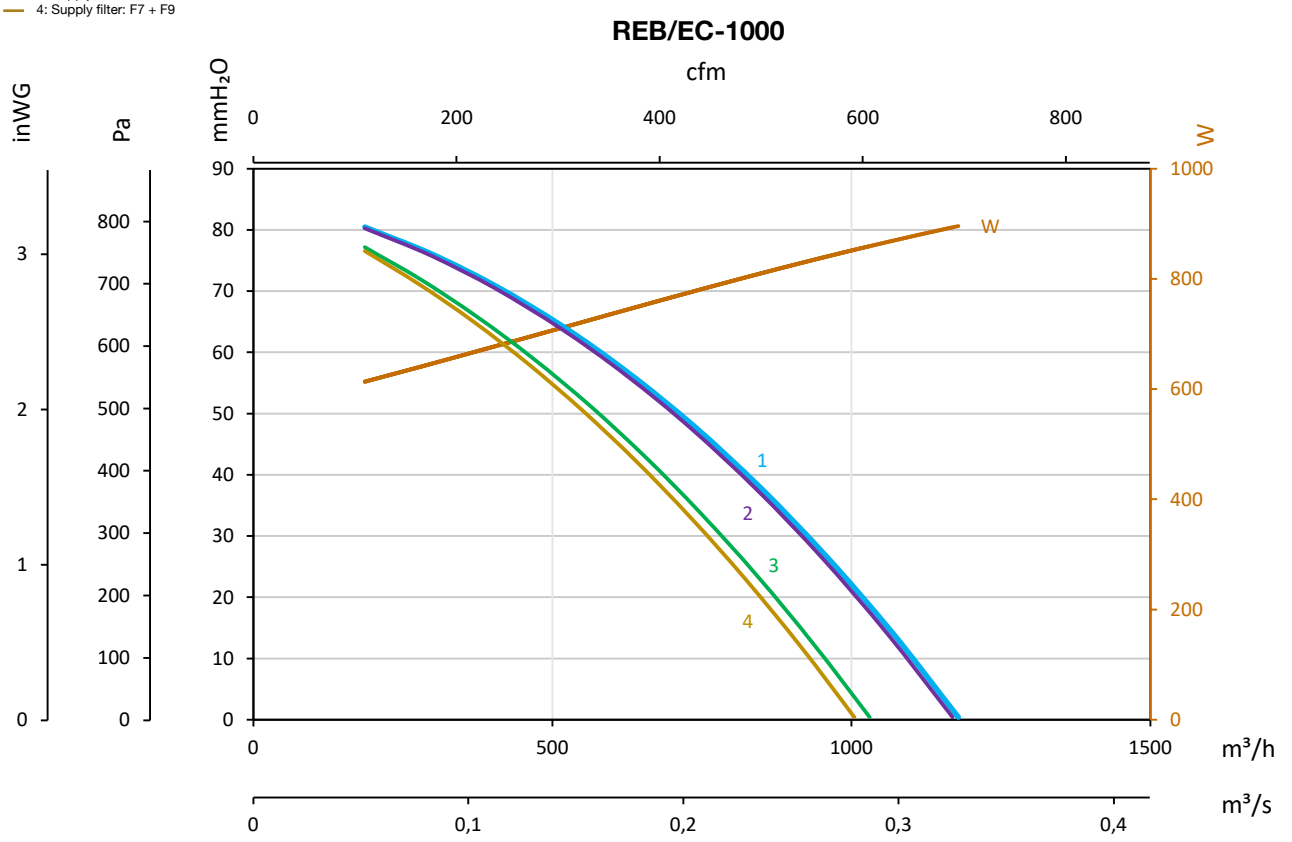

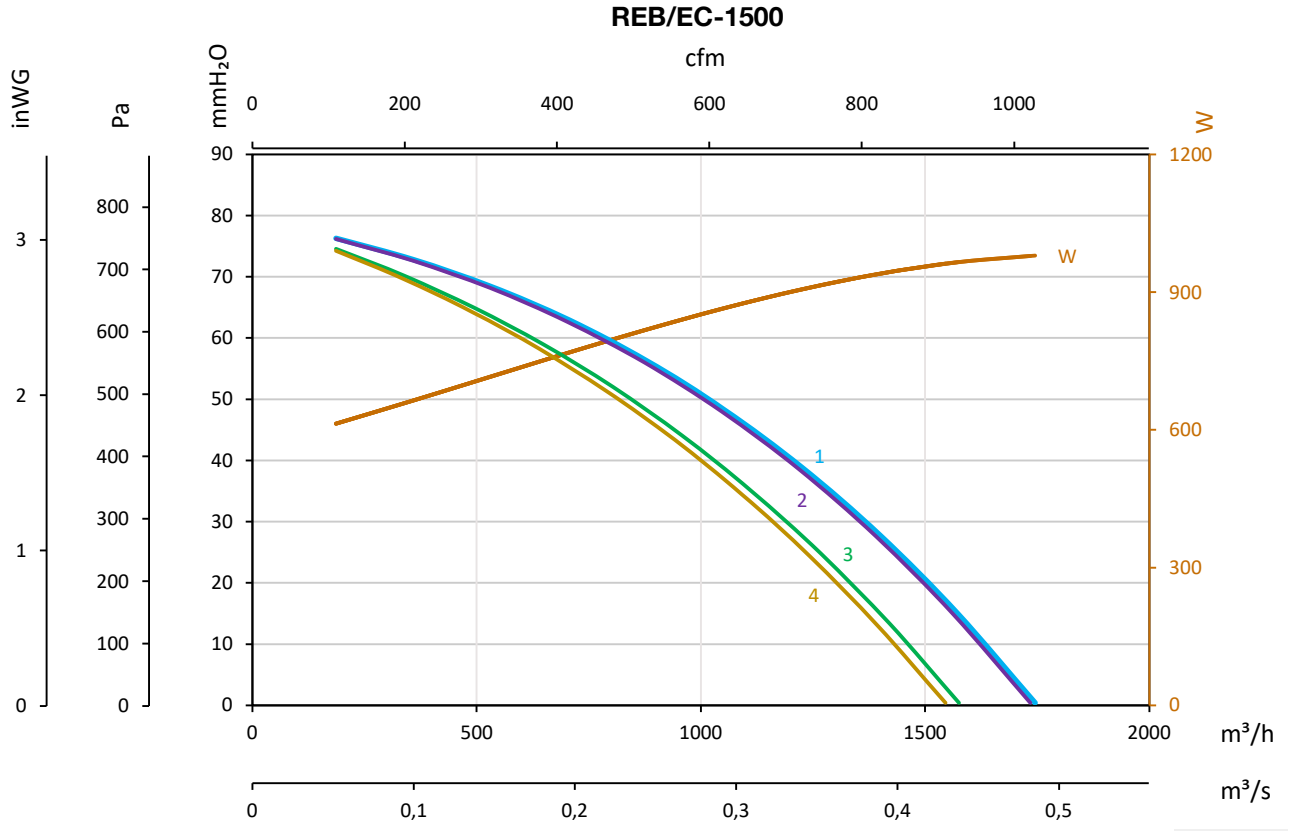

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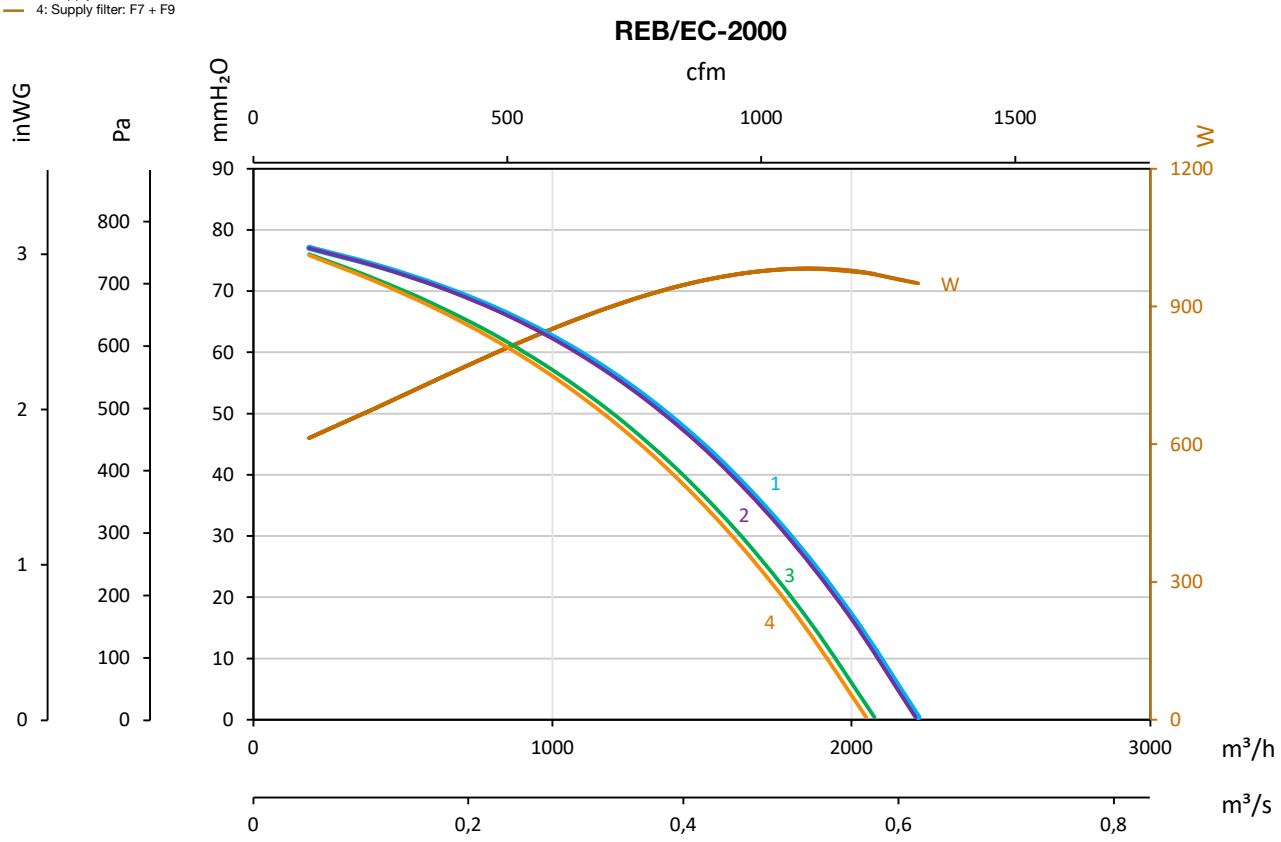

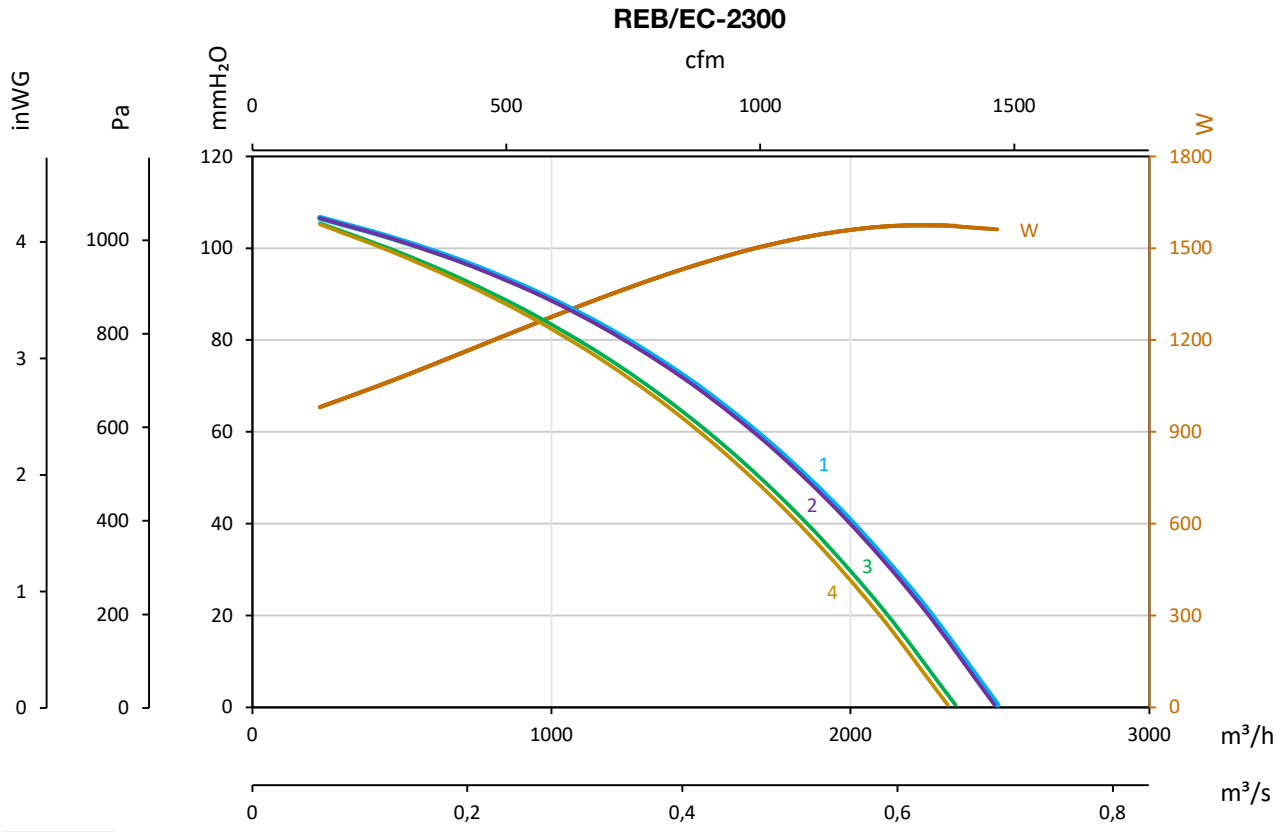

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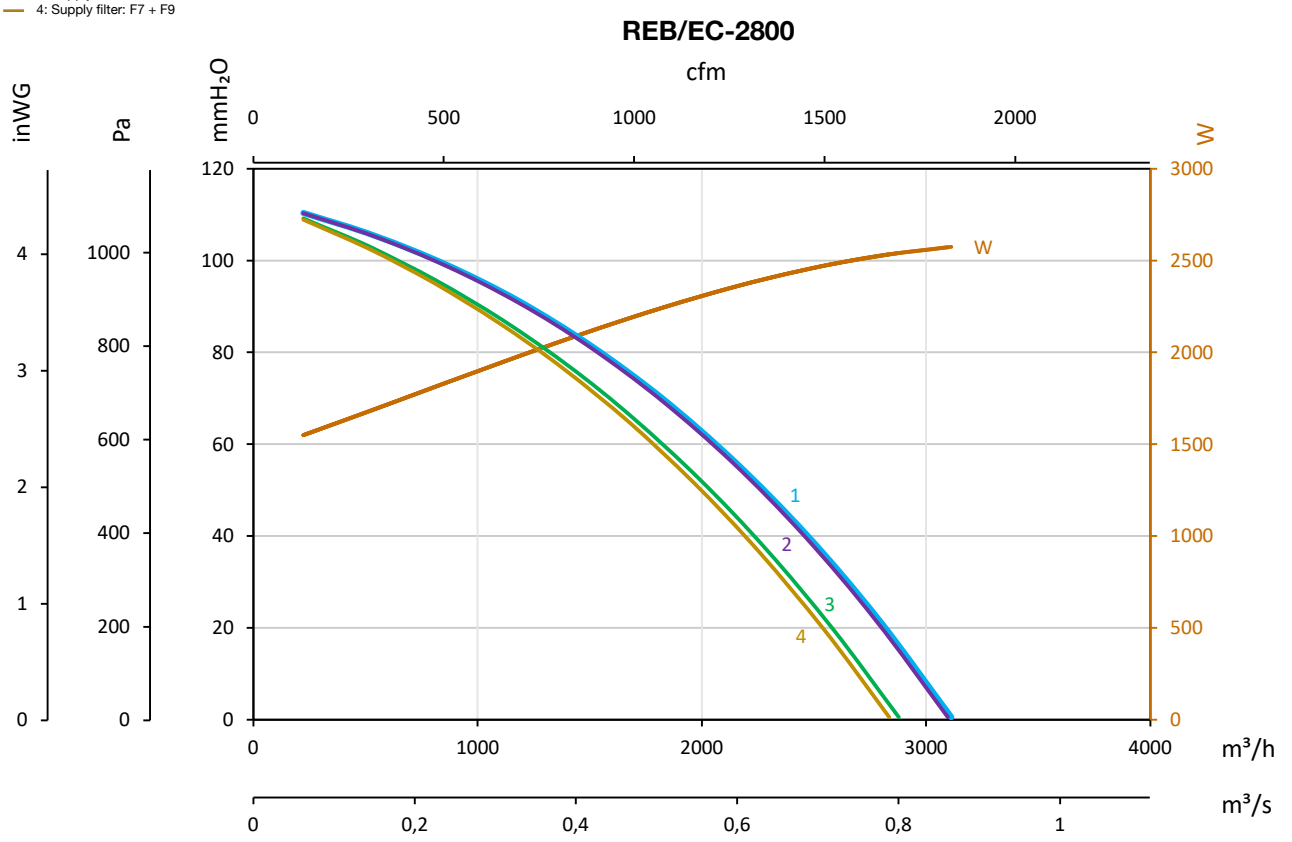

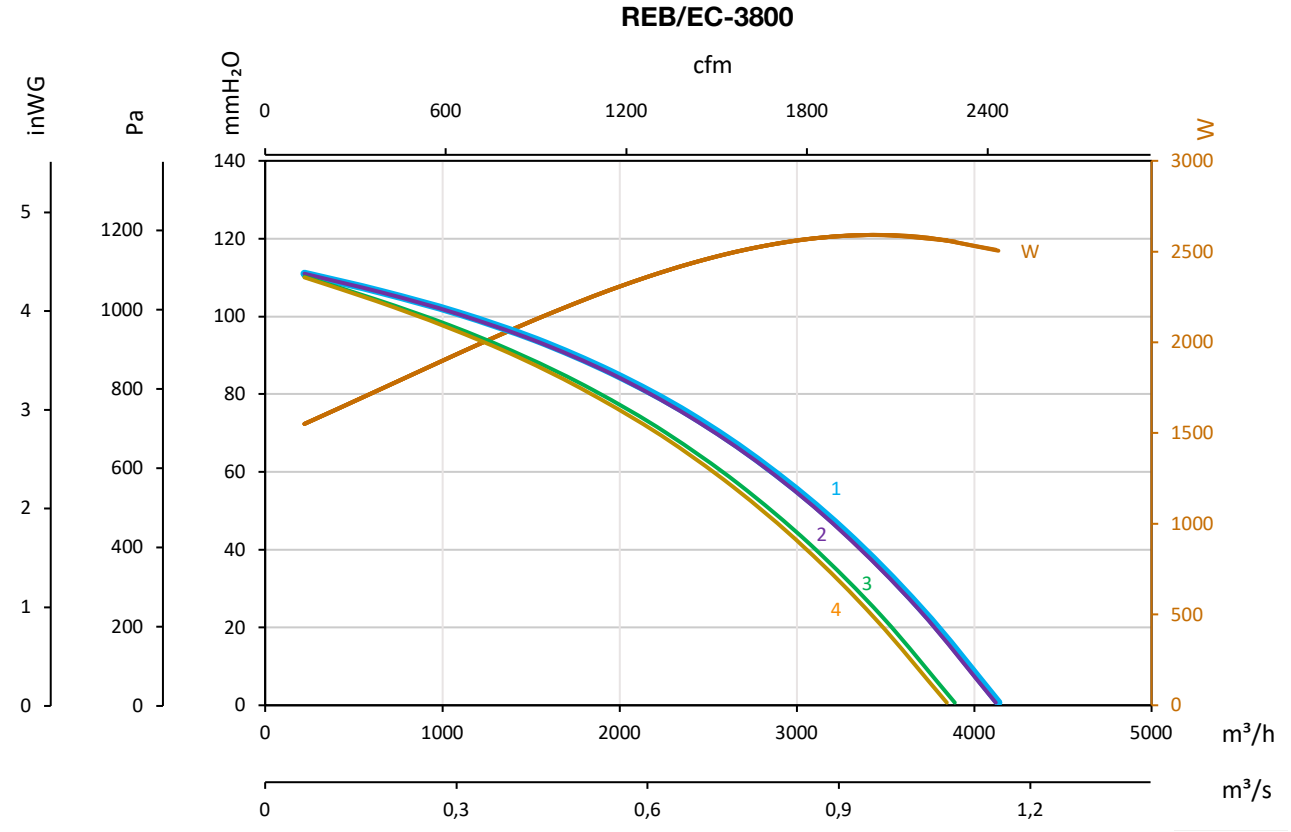

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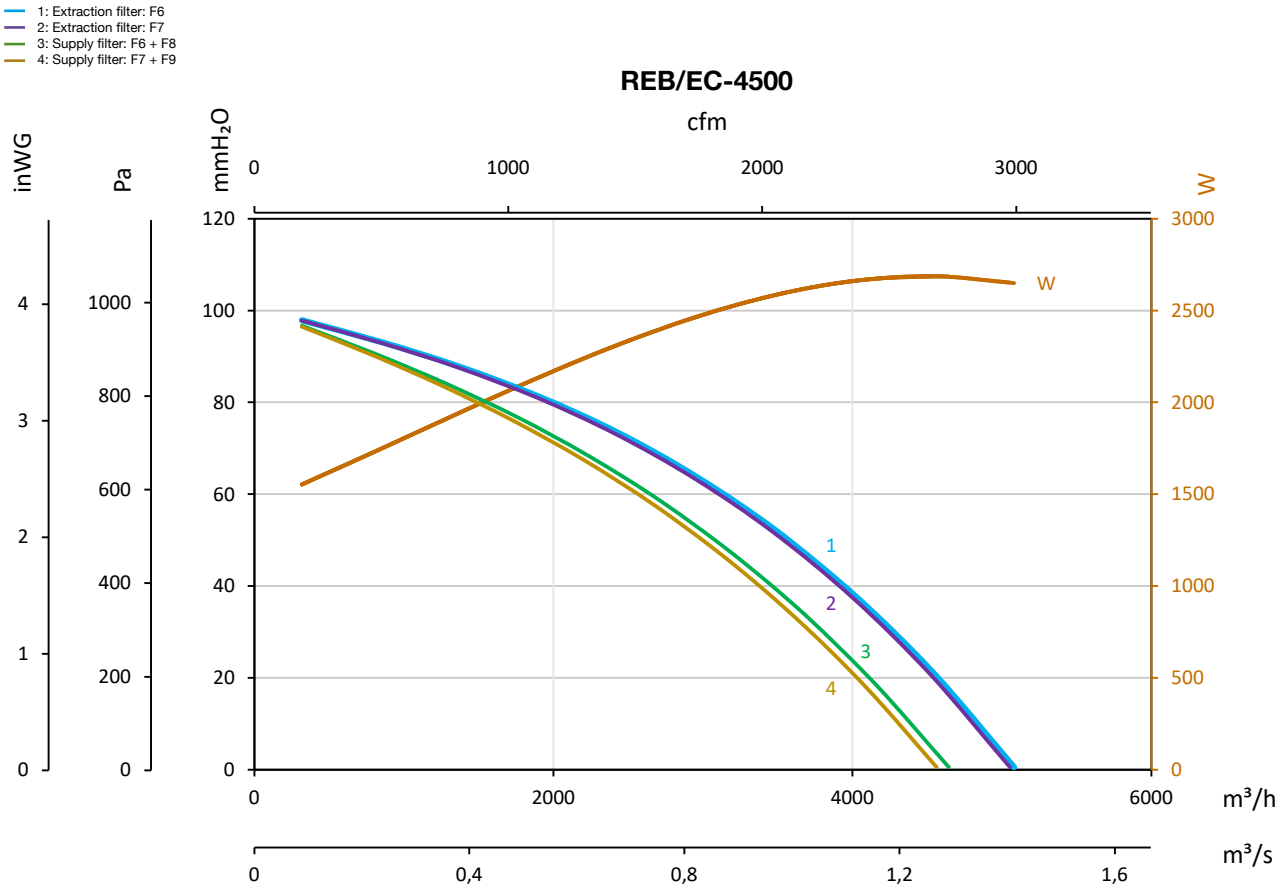

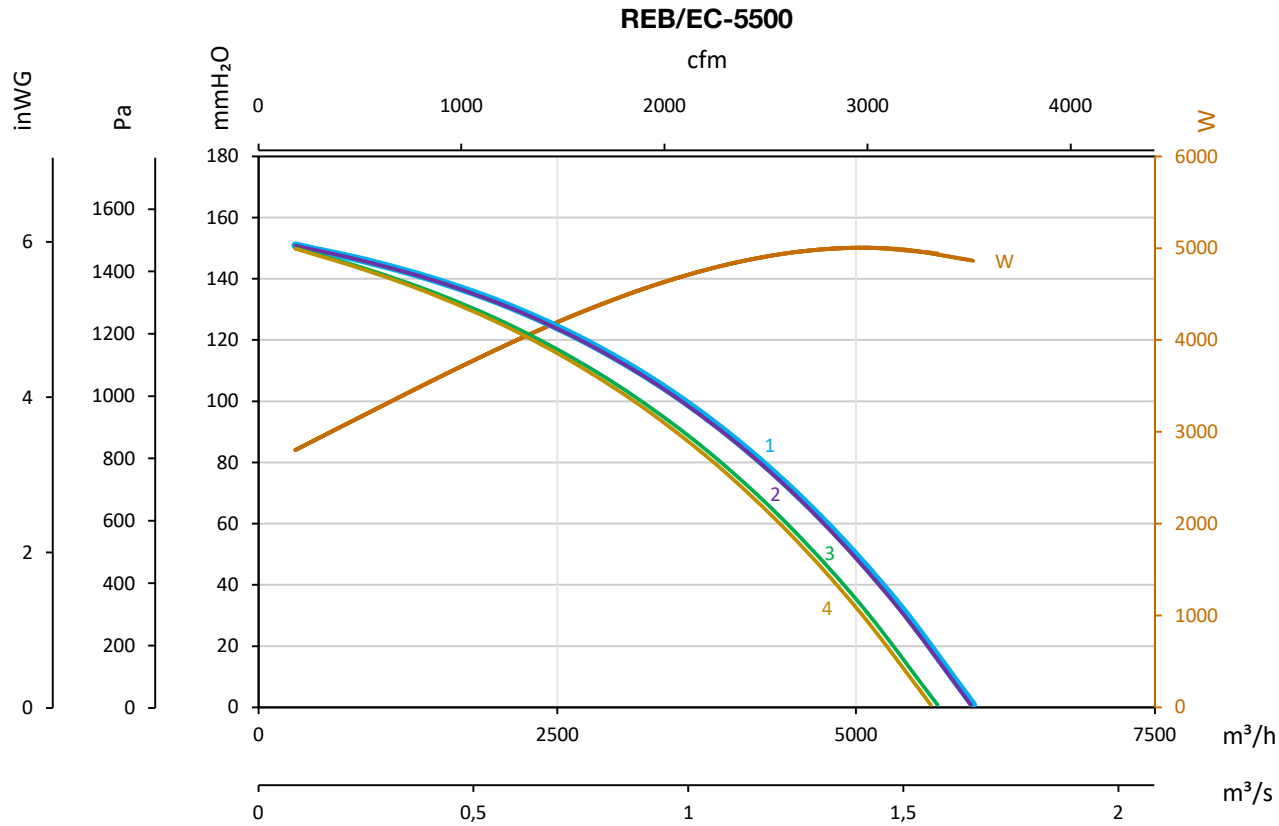

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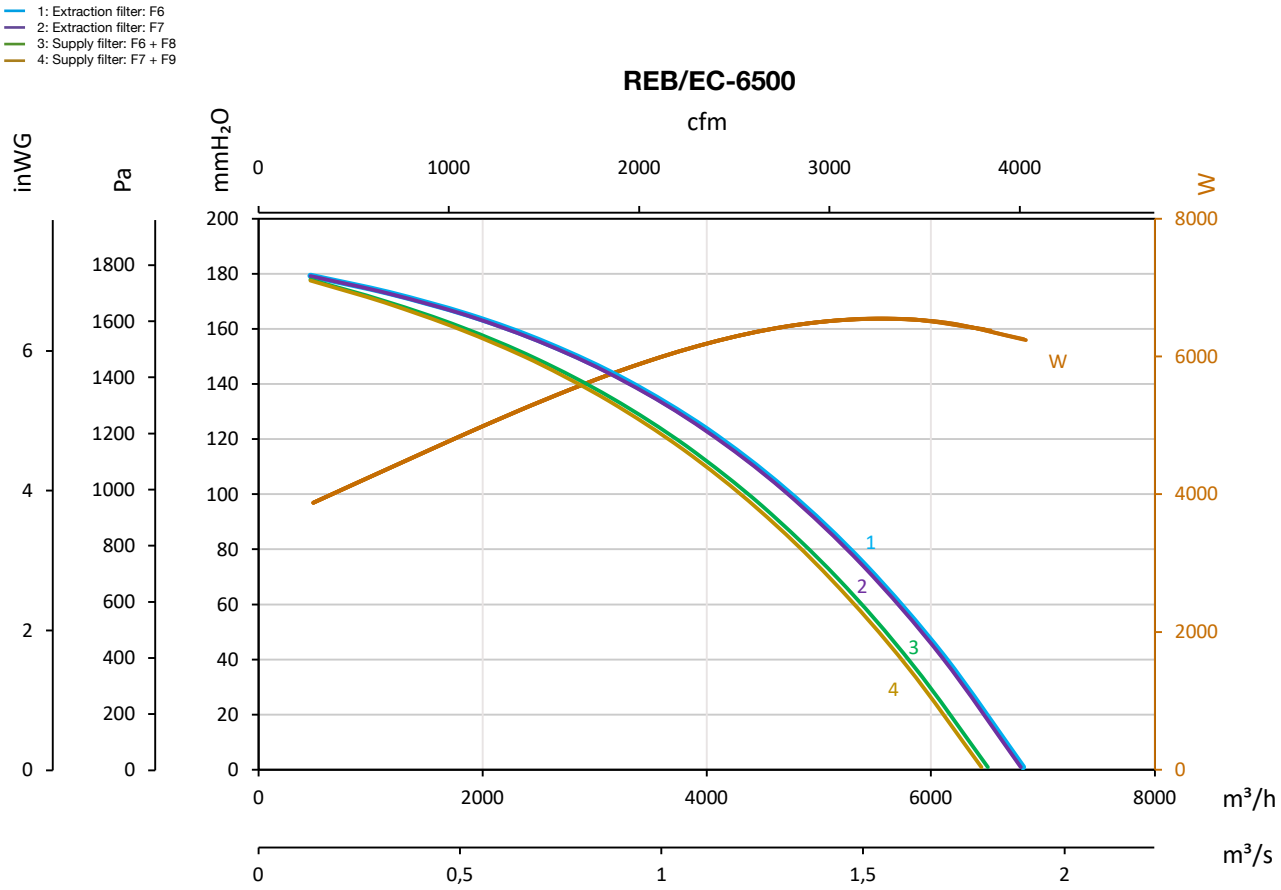

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09/2025

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