Direct Drive
Exhaust Air Units
AM-BF-EX-EC

EC motor

APPLICATION

Aire Maskin Double Skin fans are specially designed for supply and exhaust ventilation of premises requiring high pressure, powerful air flow and low noise level. These fans are featured with wide capabilities and high performance. The range includes capacity from 100 cfm to 7000 cfm with pressure range from 100 Pa to750 Pa. No condensate formation can be used for Outdoor Applications also.

AREAS OF APPLICATION

Hospitals /isolation Rooms / COVID Wards / labs / Offices / Hotels / Bars /Industrial Buildings / Basement Rooms /Greenhouses /Parking Facilities / Warehouses / Nursing Homes / Schools / Sports Halls / Super Markets / Workshops / Residential Houses / Fitness Centers

DESIGN

Casing:

- The housing is made of an extruded aluminium anodized profile with corners made of plastic.
- **OPTION I** - Double skinned (25mm / 50 mm) galvanized steel panels insulated with Puff Insulation. Outer GSS sheet minimum 0.8 mm thick and inner 0.6 mm thick as standard. The inner and outer thickness can be increased as per client requirement.
- **OPTION II - PREMIUM UNITS WITH LOW NOISE LEVELS** Double skin with Thick insulating layer of non-combustible, heat-insulated, sound that ensures silent fan operation in combination with high aerodynamic characteristics. Outer GSS sheet minimum 1 mm thick and inner 1 mm thick perforated sheet as standard. Special inner perforation of the casing and sound-insulating material is designed for wide-frequency sound absorption. The inner casing perforation let sound waves pass through the holes and fall at a specific angle to the sound absorbing layer there by making unit with low noise levels.

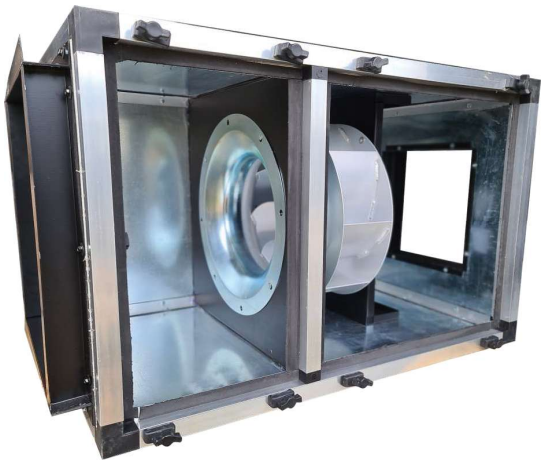
IMPELLERS

The impellers are balanced dynamically together with the external rotor motors at two levels according to quality level G2.5 / G6.3 to DIN ISO 21940-11. The Impeller is made of black, UV-stabilized, and long glass fiber reinforced Polypropylene (PP) with backward curved, for optimized efficiency.

MOTOR

- All fans are equipped with direct driven external rotor EC motors i.e the motors is fitted with impeller with low energy demand .This makes unit compact and hence a lot of space is saved. The motors with modern EC Technology reach efficiency of more than 90% easily and save up to 50% energy compared with conventional engine technology. The low energy consumption contributes not only for the environmental protection but also lowers the operating costs of our customers.

The EC Motors are maintenance-free and low-noise.



The **integrated, intelligent control** enables a variable control and other additional functions like for example pressure-, volume flow- or air quality regulation. Our EC Products comply the very highest aspirations when it comes to **energy efficiency, economy and high air quality.**

By a rectifier the mains voltage in the commutation electronic is converted in d.c. voltage. The motor voltage is made available for the motor (dependent of position) by an inverter (similar to the principle of the frequency converter). In deviation from the frequency converter the EC-commutation electronic decides depending on the position, the direction of rotation and speed specification how the motor phases are energized in the stator (commutation). Permanent magnet generates in the rotor a magnetic field, which is needed for the torque application. Hereby, a high efficient, low-noise and variable speed control is possible. A mounting flange on the rotor is used for the wheel mounting. Depending on the motor type a terminal box with cable gland or exported cables for the fast and simple connection are available.
Depending on the area of application it is possible to assume further control functions (e.g. Pressure constant control, volume flow control, temperature control).

The investment costs for EC Fans in comparison with the conventional motors amortized within short operating time through the low energy consumption
and minor installation (no transformer control unit, frequency converter or phase angle control unit is necessary).

Offered Range Motor Impeller assembly is Imported from Rosenberg GMbH Germany.

QUICK FACTS ABOUT TECHNOLOGY

- Very high efficiency, also in partial load
- Integrated control (step less variable)
- Easy connection
- Additional features (pressure control and much more)
- Lower motor size for the same performance
- Low energy-consumption

WIRING

The Potentiometer and Junction / Terminal box and is affixed to the motor housing.

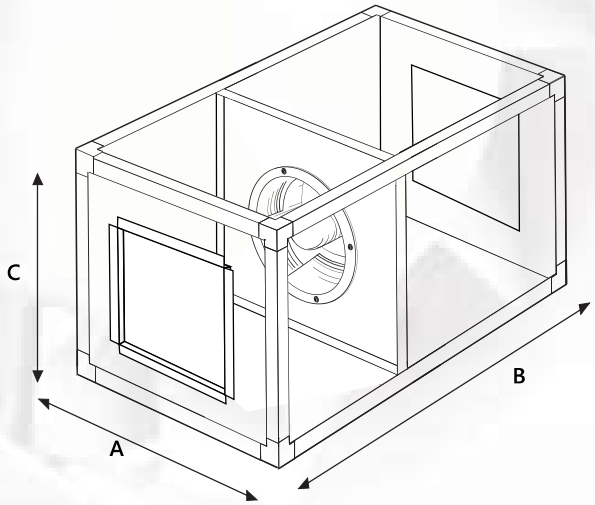
SPEED CONTROL

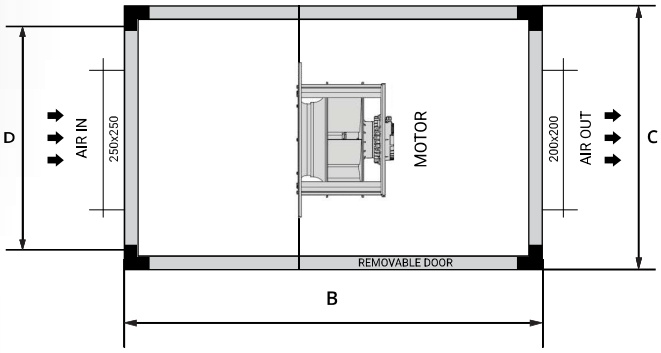
For Infinite speed variation Potentiometer is used for external setting of controllers with 0-10V input and voltage supply Us (max. 12 VDC/1mA).The desired output voltage is adjustable infinitely variable from 0 to supply voltage V by the rotary
button. Additional switch function e.g. for controller enable ON/OFF. Can be used for inset mounting as well as for surface mounting.

INSTALLATION & SERVICE

- Access doors are given which makes the fan maintenance fast and easy.

AM- BF- EX- EC- 192





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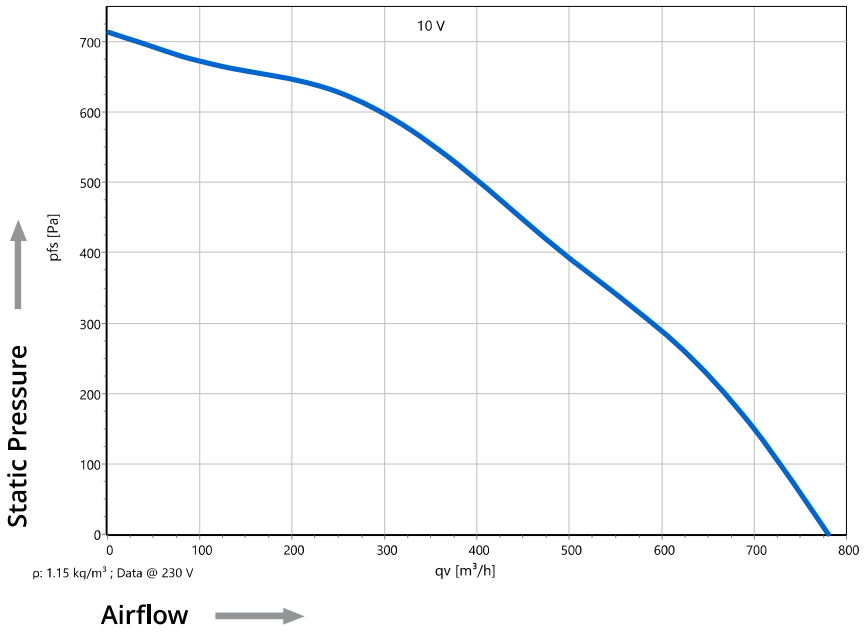
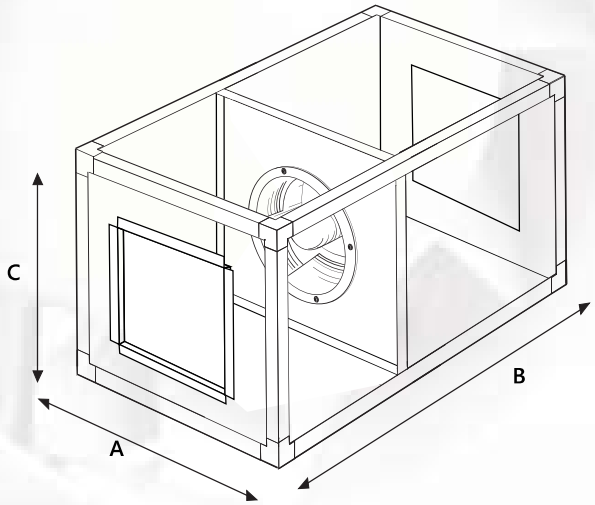
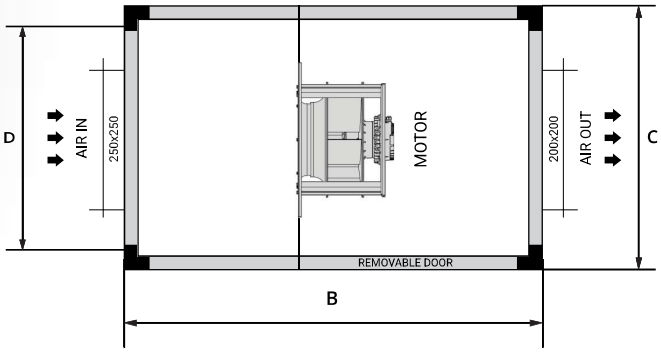


SPECIFICATIONS

Voltage [V]	Power [W]	Current [A]	Frequency [Hz]	Effeciency Rating	RPM	dBA	Temp min / max	Weight	
230	140	1.15	50	IE4	3990	35-50	-20°C / +50°C	21 Kg	IP 4X

AM- BF- EX- EC- 220





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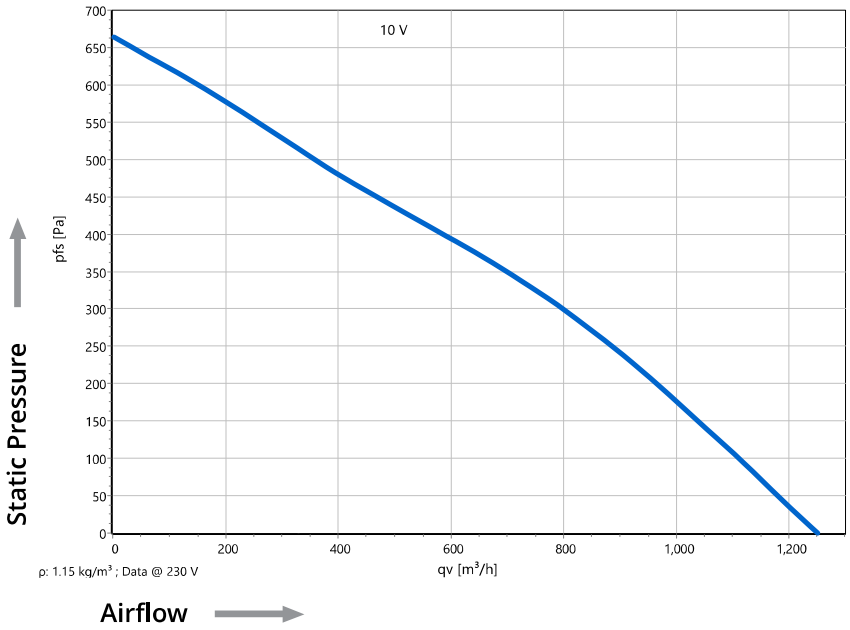
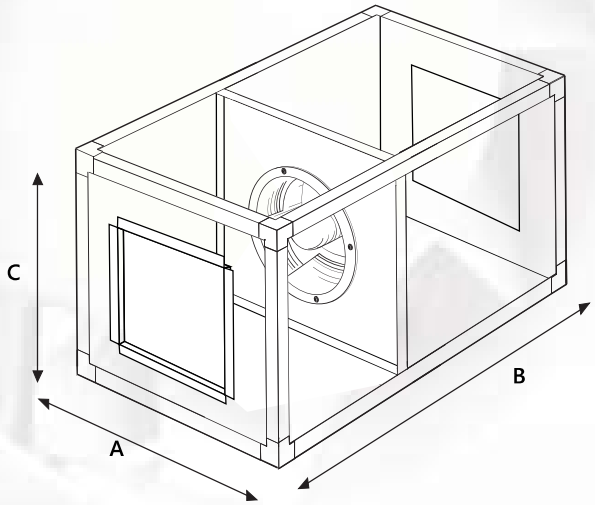
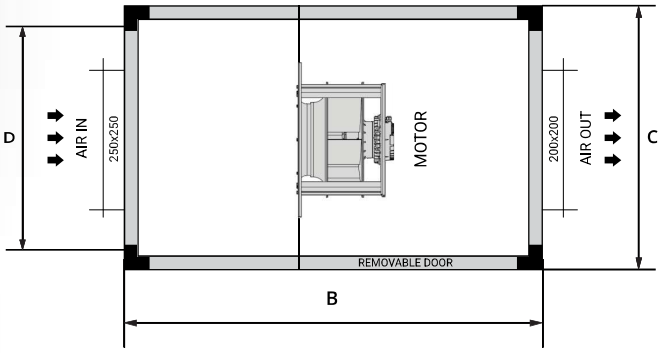


SPECIFICATIONS

Voltage [V]	Power [W]	Current [A]	Frequency [Hz]	Effeciency Rating	RPM	dBA	Temp min / max	Weight	
230	145	1.19	50	IE4	3395	35-50	-20°C / +50°C	22 Kg	IP 4X

AM- BF- EX- EC- 250





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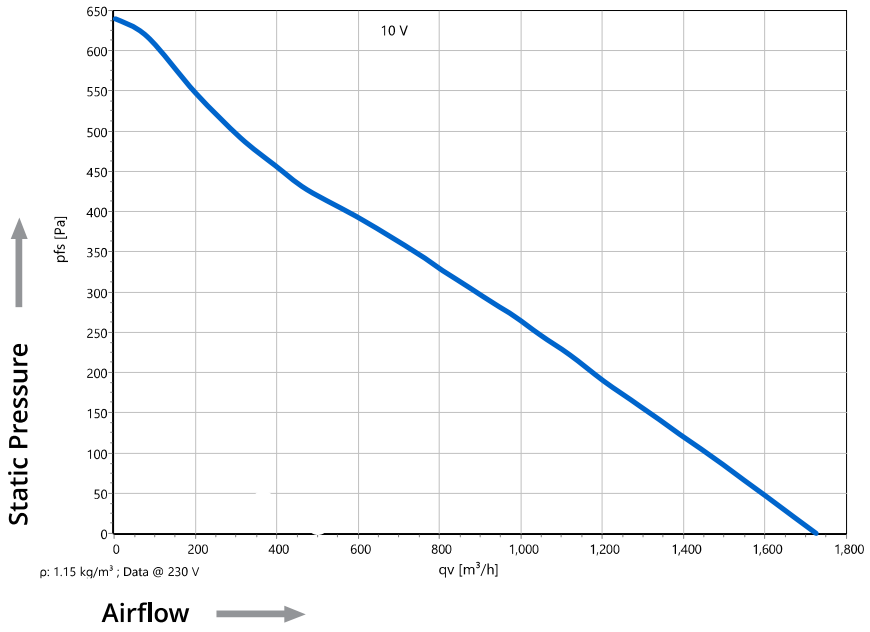
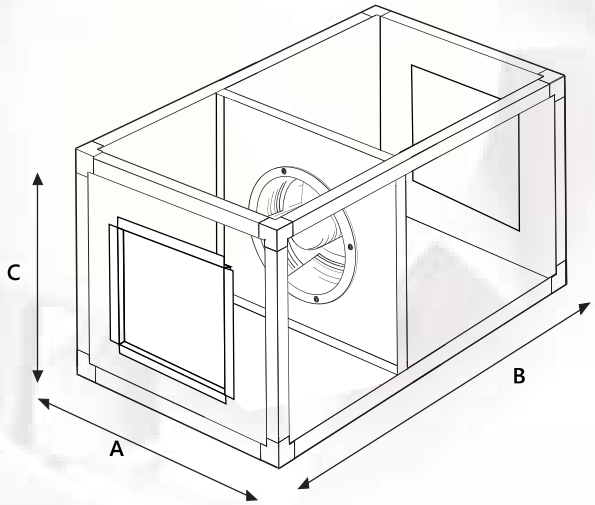
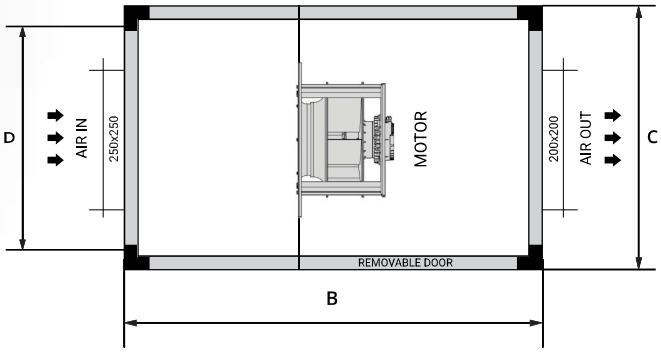


SPECIFICATIONS

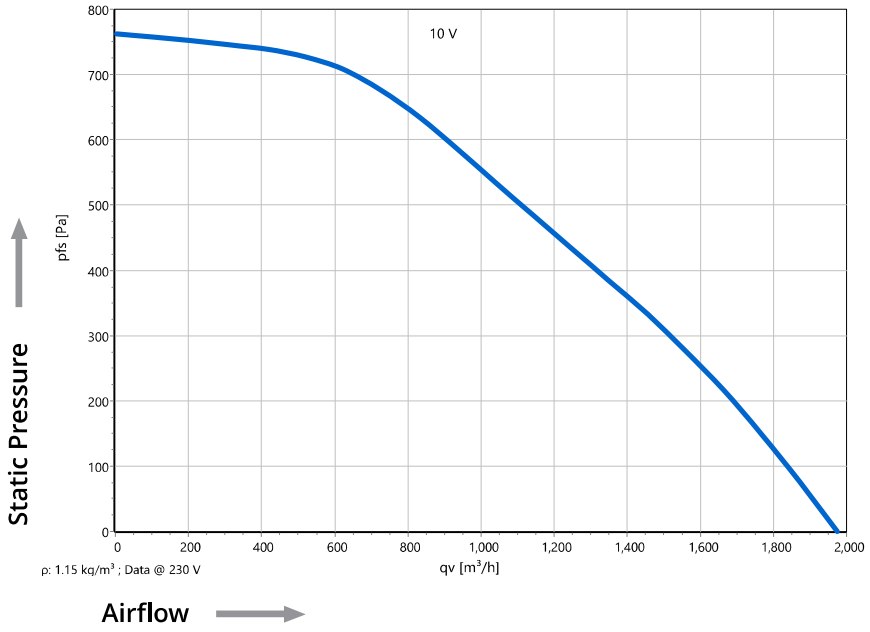
Voltage [V]	Power [W]	Current [A]	Frequency [Hz]	Effeciency Rating	RPM	dBA	Temp min / max	Weight	
230	150	1.19	50	IE4	2965	35-50	-20°C / +50°C	27 Kg	IP 4X

AM- BF- EX- EC- 250





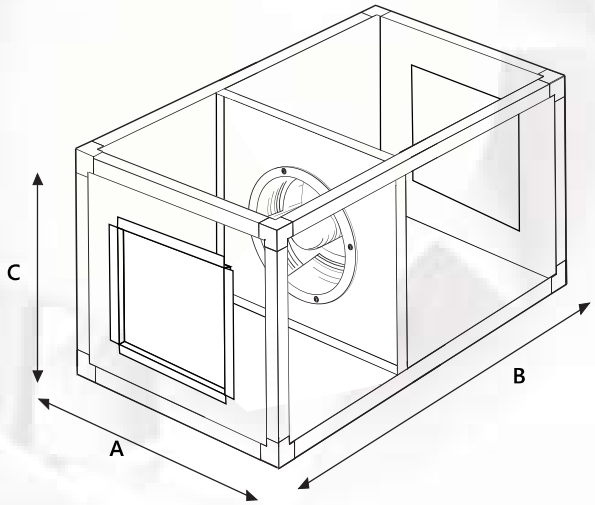
A = 460 C = 460
B = 690 D = 400

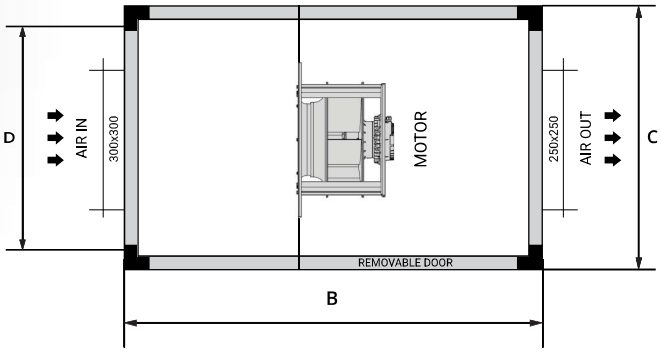


SPECIFICATIONS

Voltage [V]	Power [W]	Current [A]	Frequency [Hz]	Effeciency Rating	RPM	dBA	Temp min / max	Weight	
230	266	1.19	50	IE4	3390	35-50	-20°C / +60°C	29 Kg	IP 54

AM- BF- EX- EC- 337





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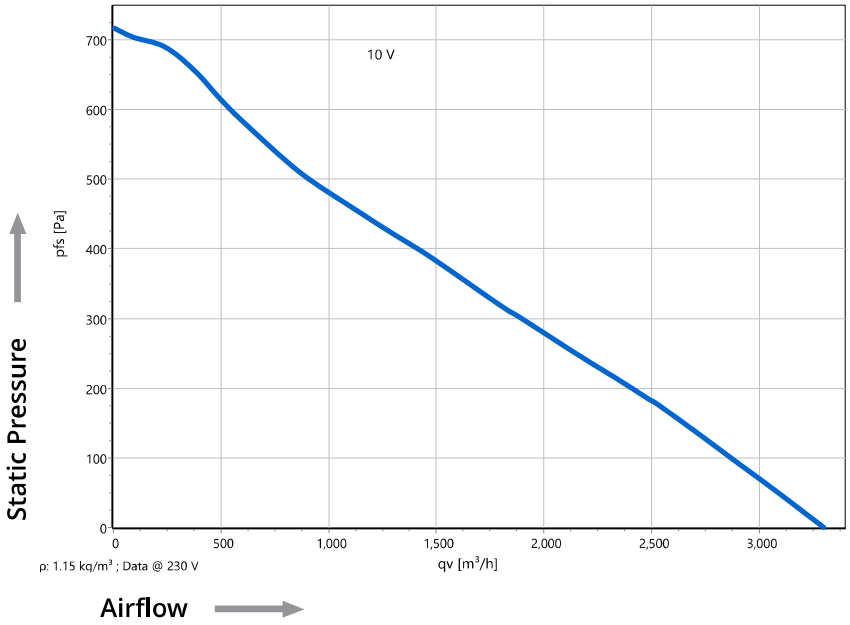
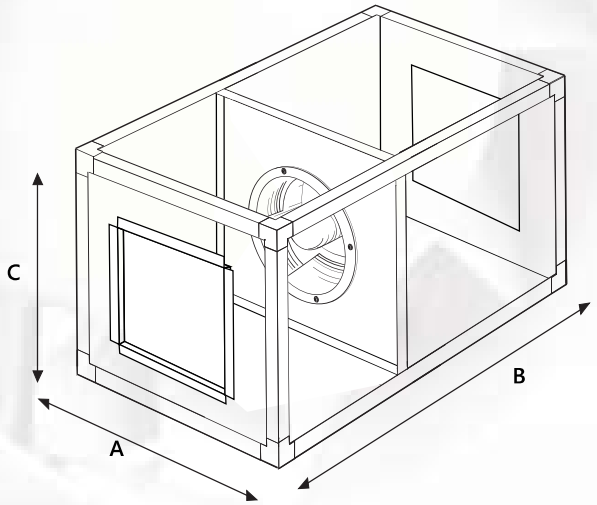
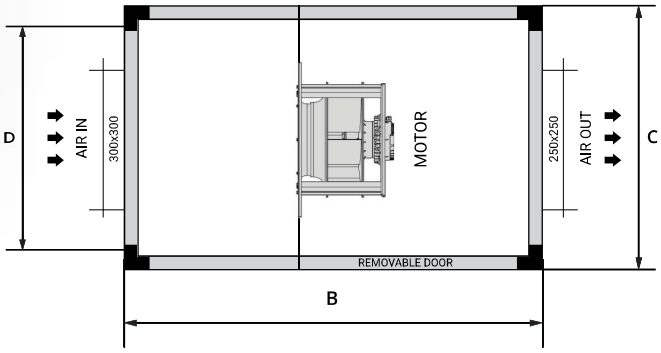


SPECIFICATIONS

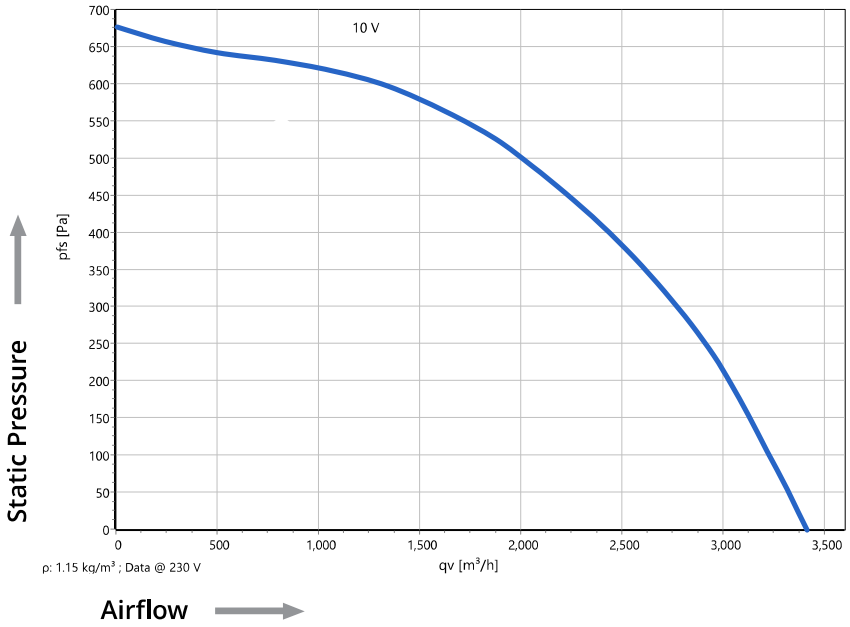
Voltage [V]	Power [W]	Current [A]	Frequency [Hz]	Effeciency Rating	RPM	dBA	Temp min / max	Weight	
230	300	1.35	50	IE4	2200	35-50	-20°C / +60°C	44 Kg	IP 54

AM- BF- EX- EC- 315





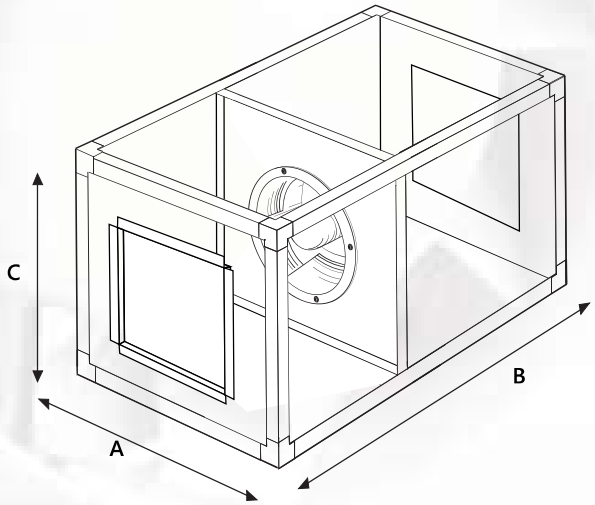
A = 580 C = 580
B = 810 D = 520

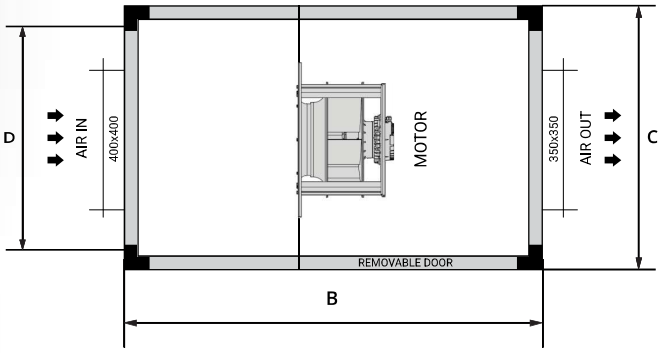


SPECIFICATIONS

Voltage [V]	Power [kW]	Current [A]	Frequency [Hz]	Effeciency Rating	RPM	dBA	Temp min / max	Weight	
230	0.51	2.25	50	IE4	2265	35-50	-25°C / +40°C	50 Kg	IP 54

AM- BF- EX- EC- 355





A = 610 C = 610
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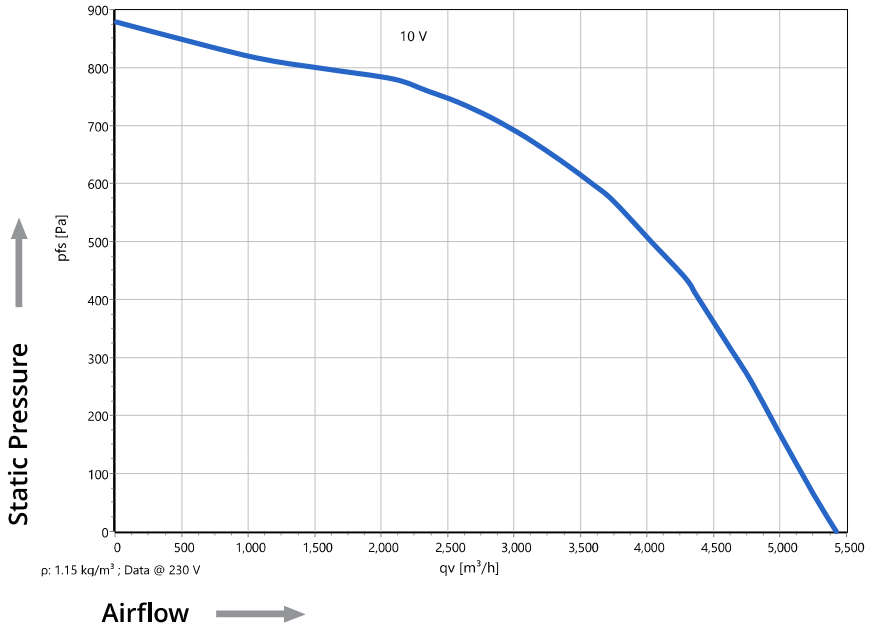
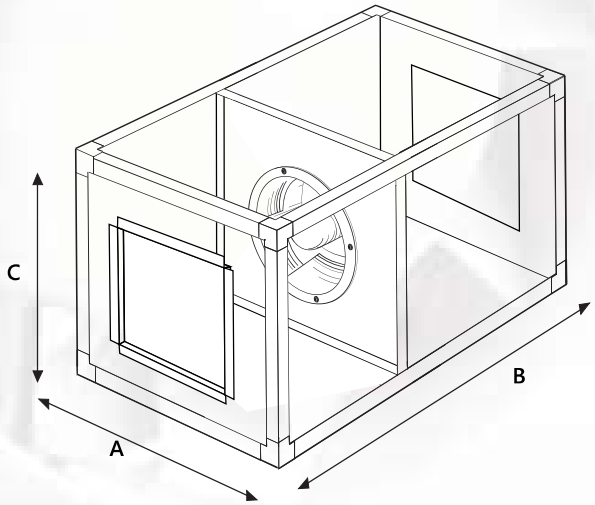
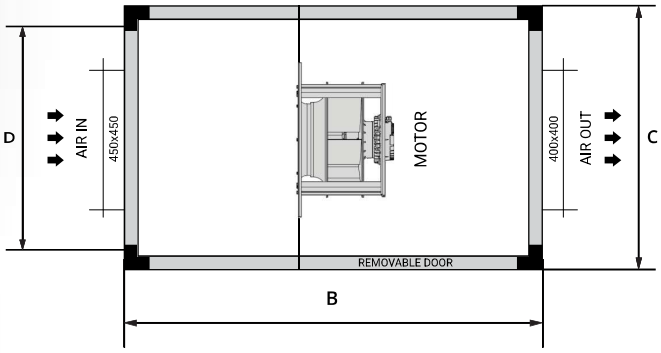


SPECIFICATIONS

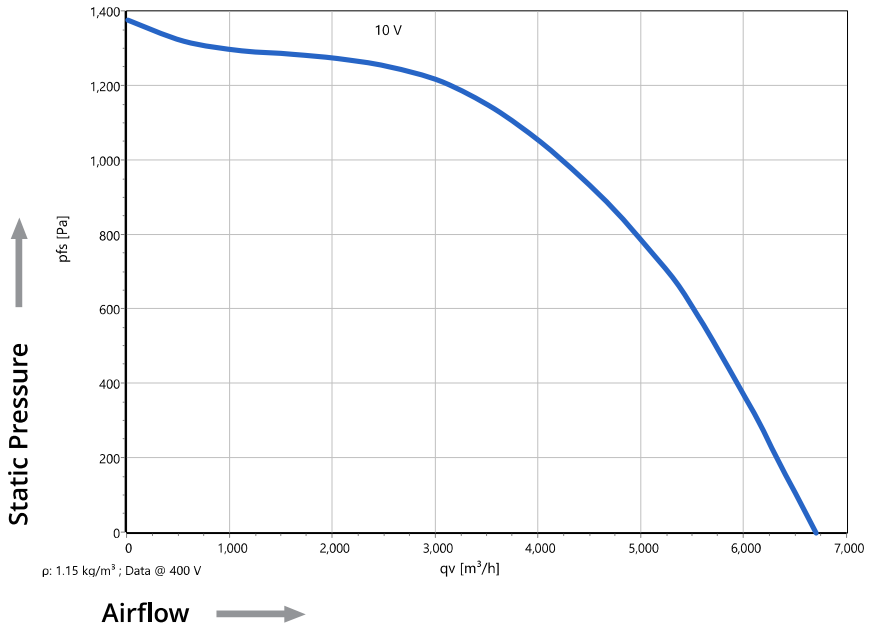
Voltage [V]	Power [kW]	Current [A]	Frequency [Hz]	Effeciency Rating	RPM	dBA	Temp min / max	Weight	
230	1.08	4.75	50	IE5	2250	35-60	-25°C / +45°C	57 Kg	IP 54

AM- BF- EX - EC- 355/3





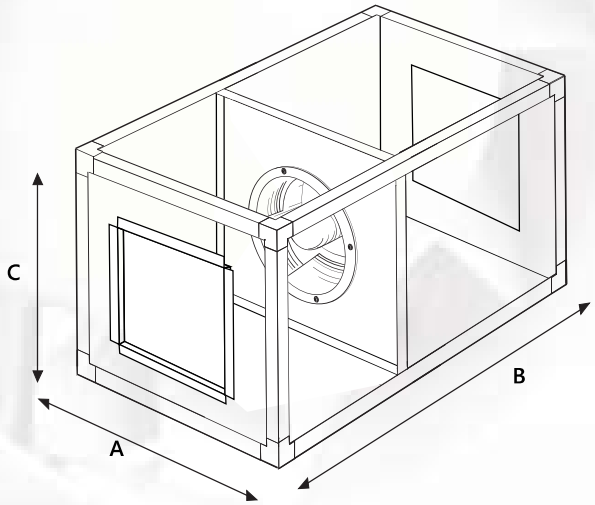
A = 610 C = 610
B = 940 D = 550

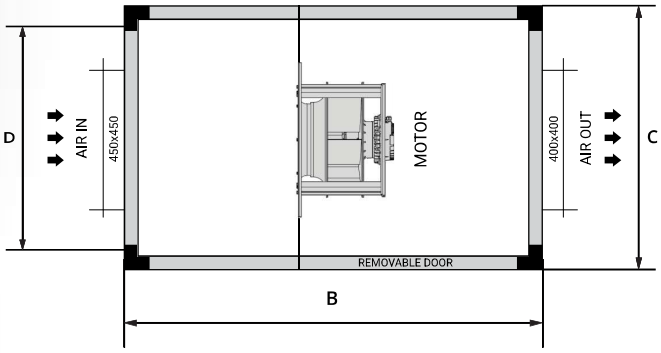


SPECIFICATIONS

Voltage [V]	Power [kW]	Current [A]	Frequency [Hz]	Effeciency Rating	RPM	dBA	Temp min / max	Weight	
400	1.98	3.35	50	IE5	2800	35-60	-25°C / +40°C	65 Kg	IP 54

AM- BF- EX- EC- 450





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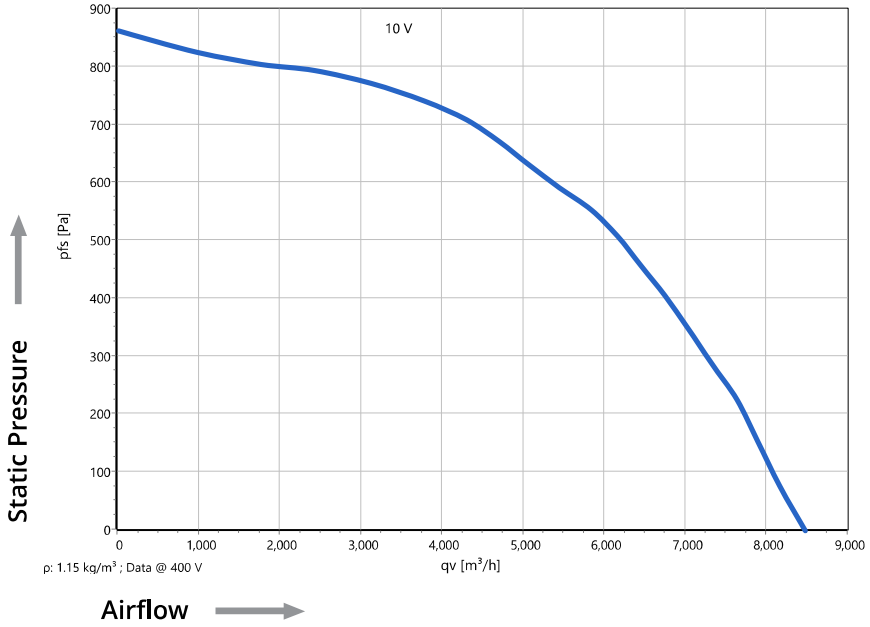
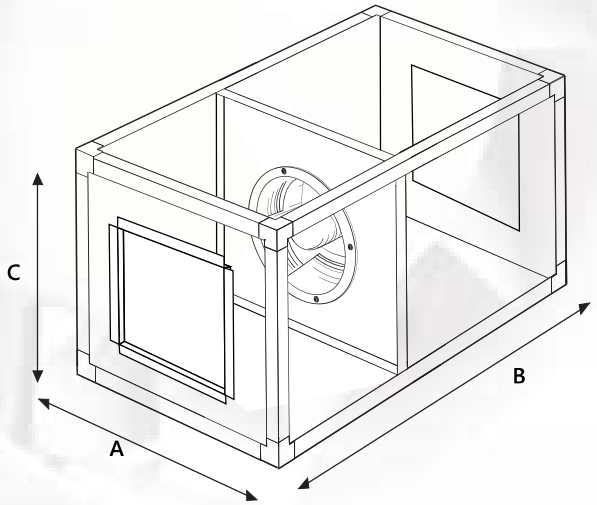
B = 1030 D = 640

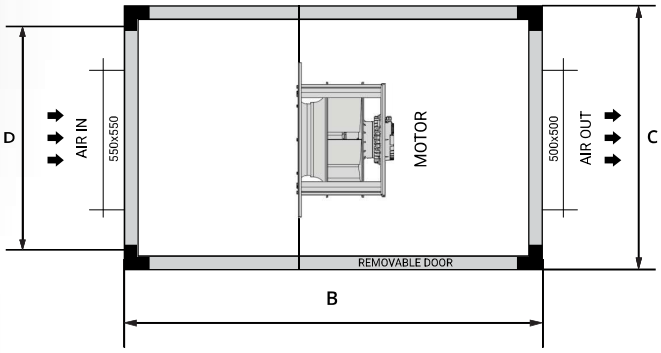


SPECIFICATIONS

Voltage [V]	Power [kW]	Current [A]	Frequency [Hz]	Effeciency Rating	RPM	dBA	Temp min / max	Weight	
400	1.61	2.6	50	IE5	1775	35-60	-25°C / +40°C	81 Kg	IP 54

AM- BF- EX- EC- 450IE5





A = 700 C = 700
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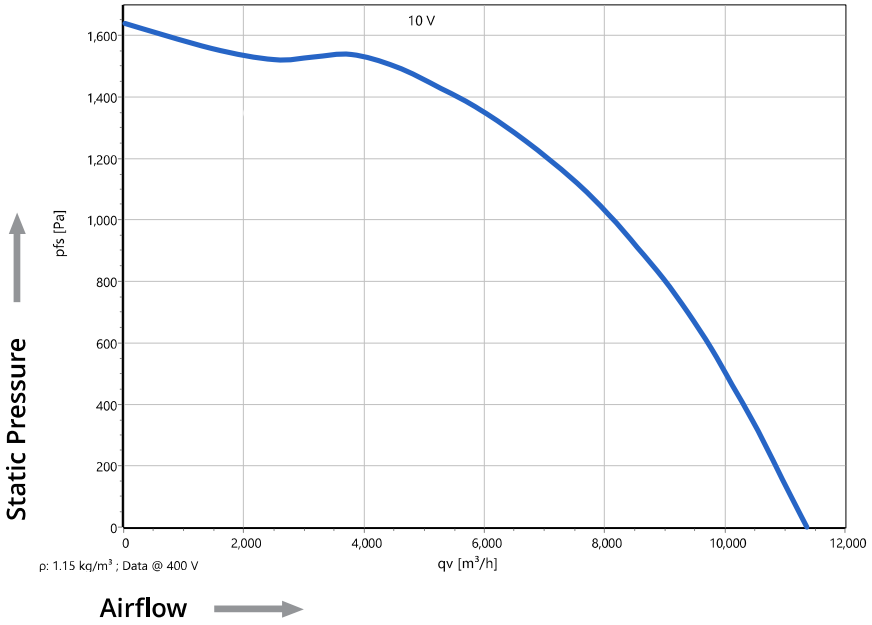
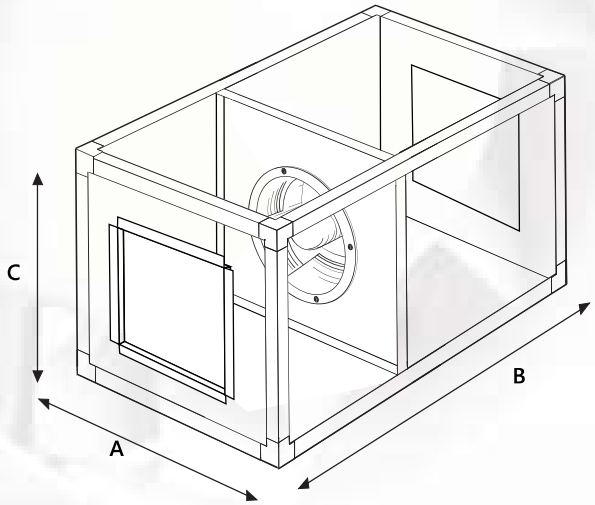
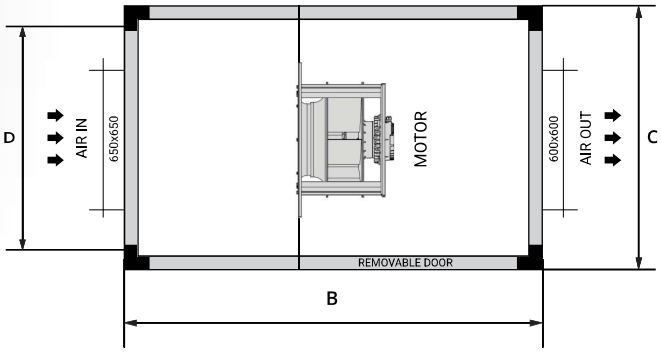


SPECIFICATIONS

Voltage [V]	Power [kW]	Current [A]	Frequency [Hz]	Effeciency Rating	RPM	dBA	Temp min / max	Weight	
400	3.94	6	50	IE5	2400	35-60	-25°C / +40°C	90 Kg	IP 54

AM- BF- EX- EC- 560





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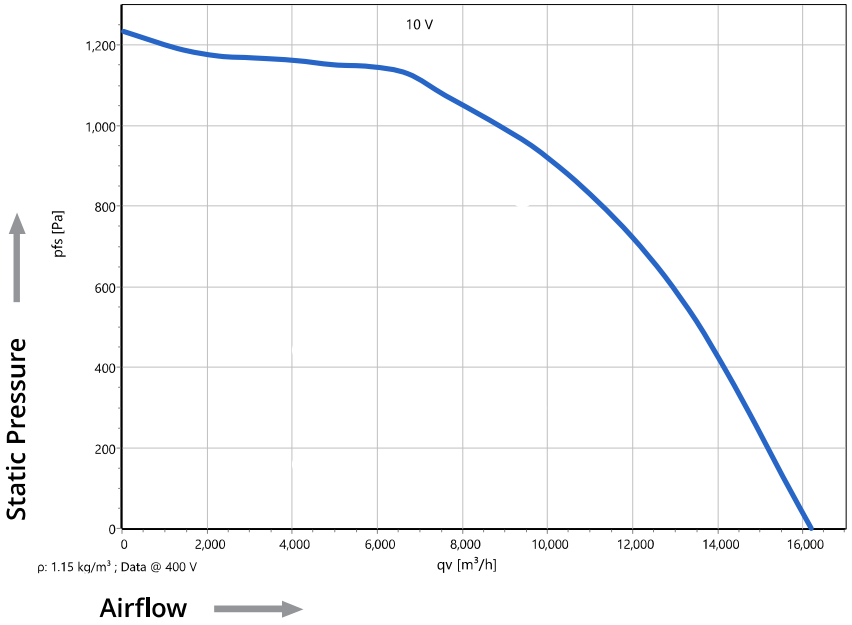
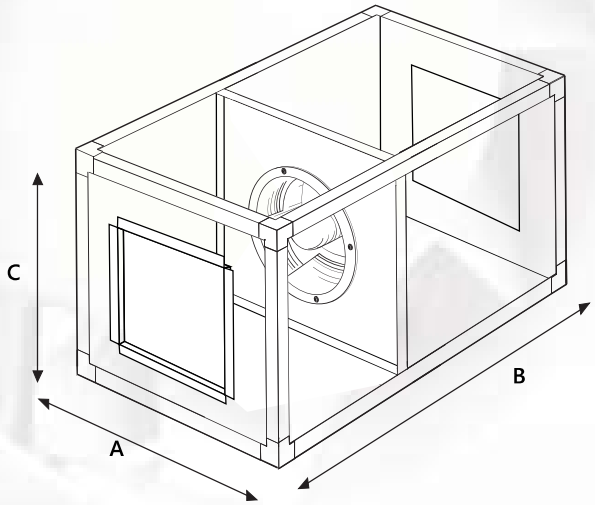
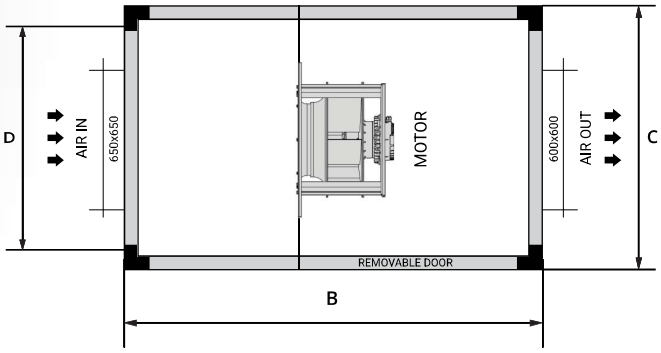


SPECIFICATIONS

Voltage [V]	Power [kW]	Current [A]	Frequency [Hz]	Effeciency Rating	RPM	dBA	Temp min / max	Weight	
400	4.28	6.55	50	IE5	1700	35-60	-25°C / +40°C	137 Kg	IP 54

AM- BF- EX- EC- 630





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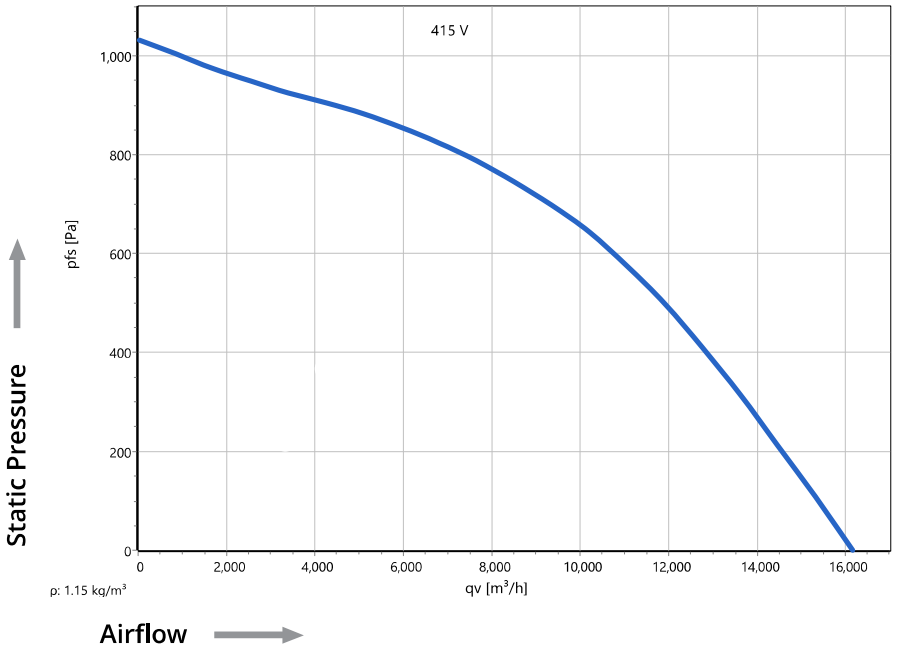
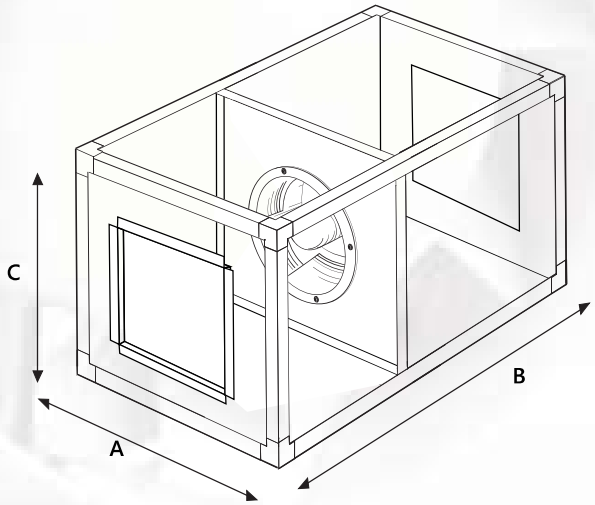
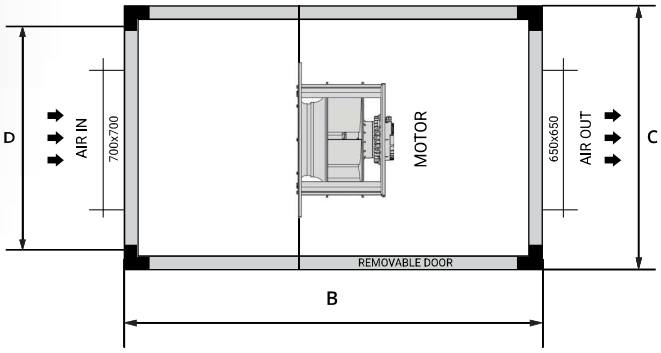


SPECIFICATIONS

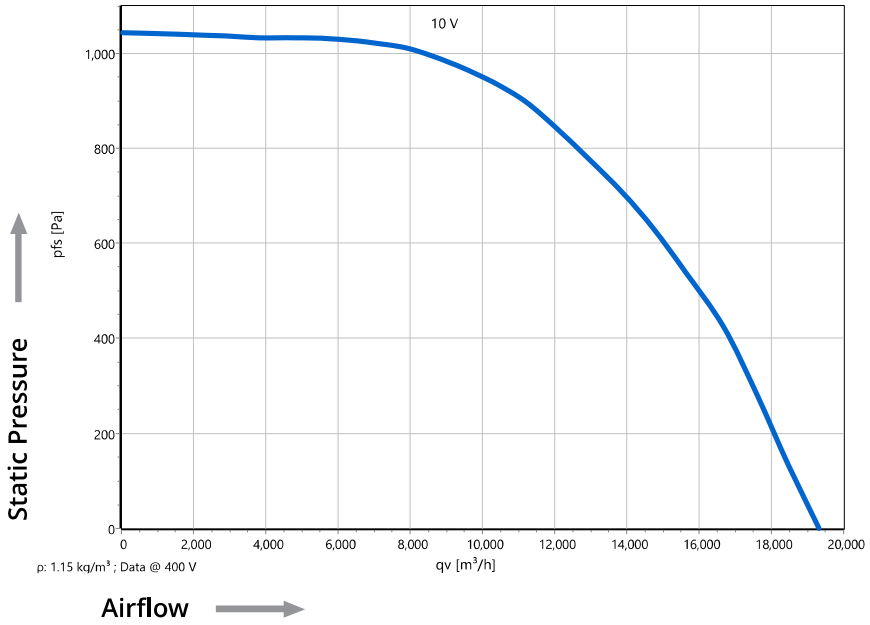
Voltage [V]	Power [kW]	Current [A]	Frequency [Hz]	Effeciency Rating	RPM	dBA	Temp min / max	Weight	
400	3.3	5.1	50	IE5	1380	35-60	-25°C / +40°C	172 Kg	IP 54

AM- BF- EX- EC- 630B





A = 1010 C = 1010
B = 1340 D = 950



SPECIFICATIONS

Voltage [V]	Power [kW]	Current [A]	Frequency [Hz]	Effeciency Rating	RPM	dBA	Temp min / max	Weight	
400	4.5	6.9	50	IE5	1330	35-60	-25°C / +40°C	179 Kg	IP 54