



Ventilation Units with Pre & Fine Filters **AM-BF-VU-PF-EC**



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 to 750 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 Backward curve 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).

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.

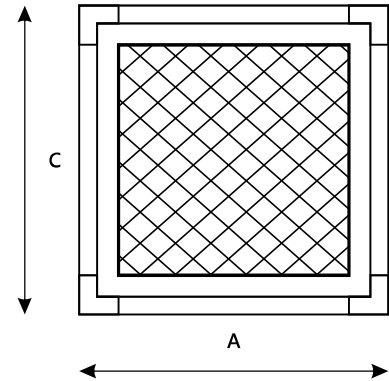
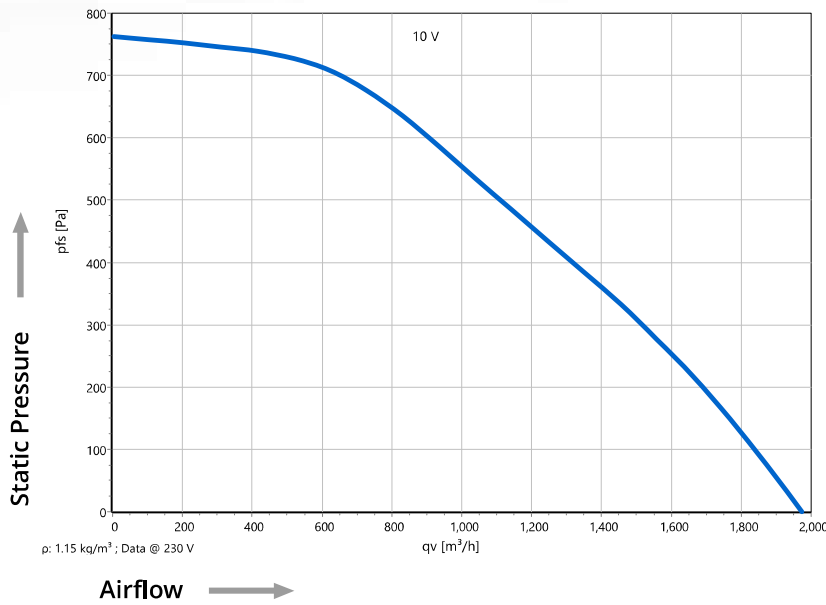
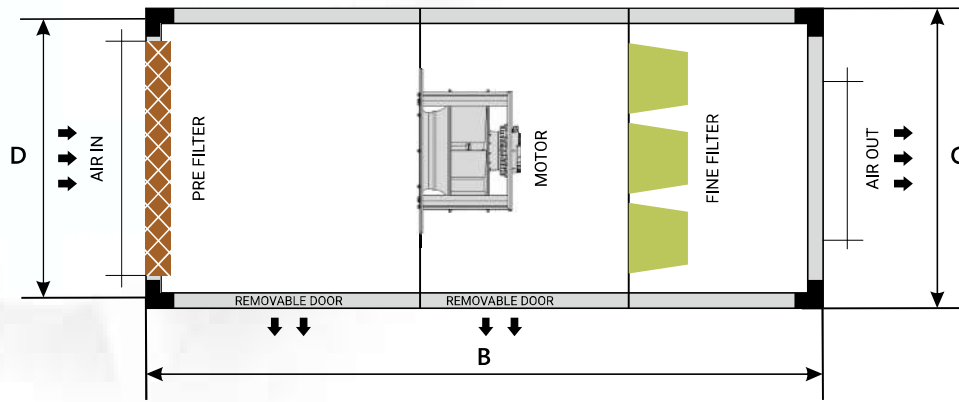
SPEED CONTROL

For Infinite speed variation Potentiometer is used for external setting of controllers with 0-10V input and voltage supply U_s (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.

FILTER SPECIFICATION

- Filter Class as per EN 779:2012 : M6 TO F9
- Particulate Efficiency : $\geq 95\%$ down to 5 micron
- Average Arrestance as per EN 779:2012 : $\geq 95\%$

AM- BF- VU- PF- EC- 250

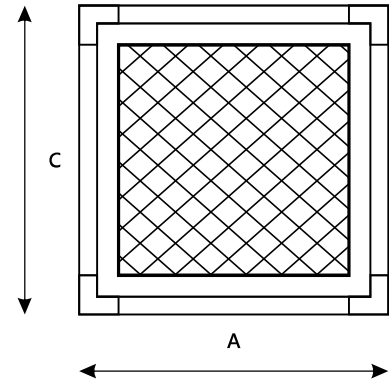
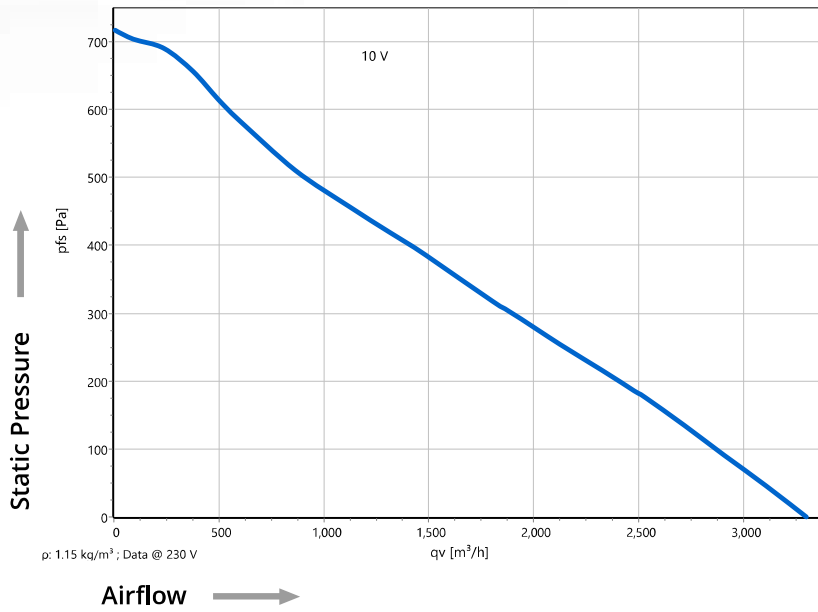
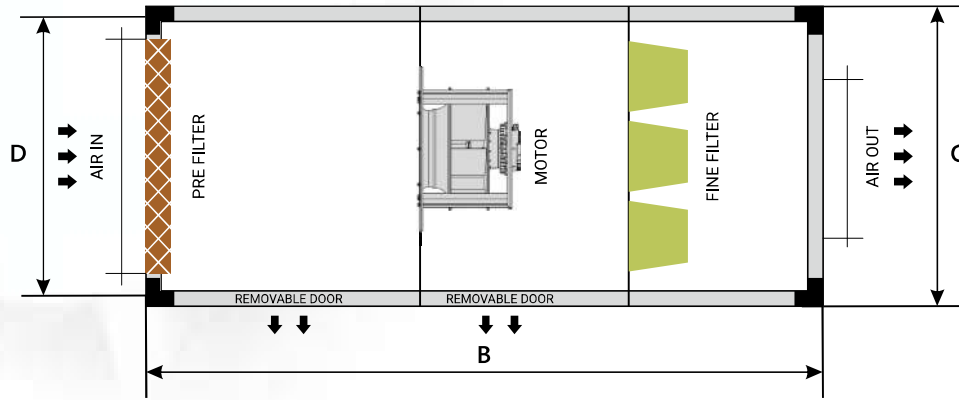


SPECIFICATIONS

Voltage [V]	Power [W]	Current [A]	Frequency [Hz]	Efficiency Rating	RPM	dBA	Temp min / max	Weight	IP 54
230	266	1.19	50	IE4	3390	35-50	-20°C / +60°C	48 Kg	IP 54

CFM	Static	Dimensions				Filter Size Pre Filter / Fine Filter	Inlet Size	Outlet Size
		A	B	C	D			
500	35	460	1470	460	400	305x305x50-1 / 305x305x305-1	250 x 250	200 x 200

AM- BF- VU- PF- EC- 337

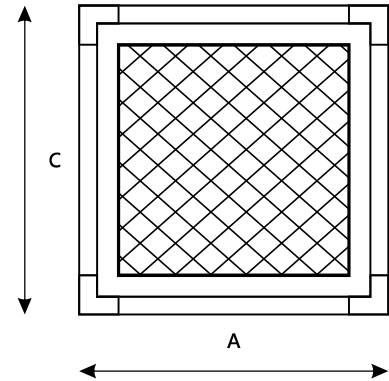
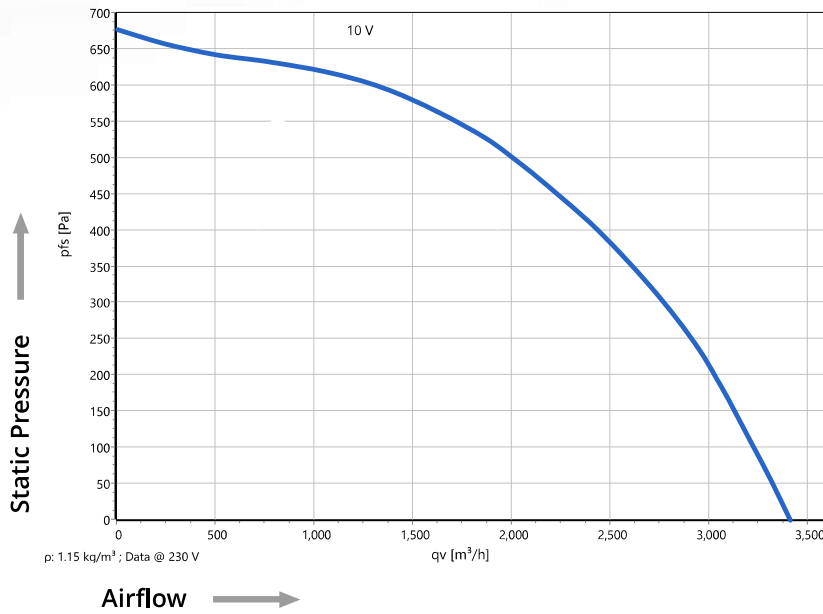
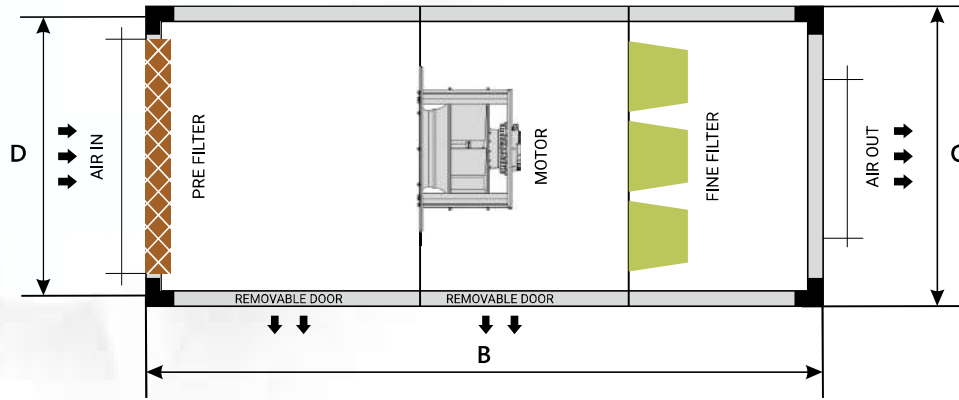


SPECIFICATIONS

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

CFM	Static	Dimensions				Filter Size Pre Filter / Fine Filter	Inlet Size	Outlet Size	Weight
		A	B	C	D				
750	35	700	1590	580	520	610x305x50-1 / 610x305x305-1	250 x 550	300 x 300	75 Kg
1000	35	700	1590	580	520	610x305x50-1 / 610x305x305-1	250 x 550	300 x 300	75 Kg

AM- BF- VU- PF- EC- 315

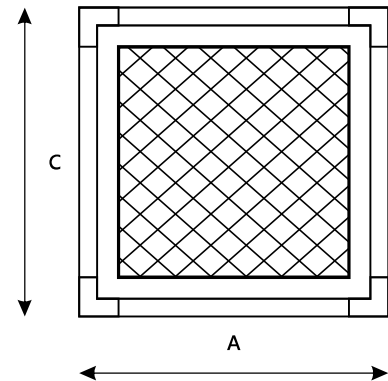
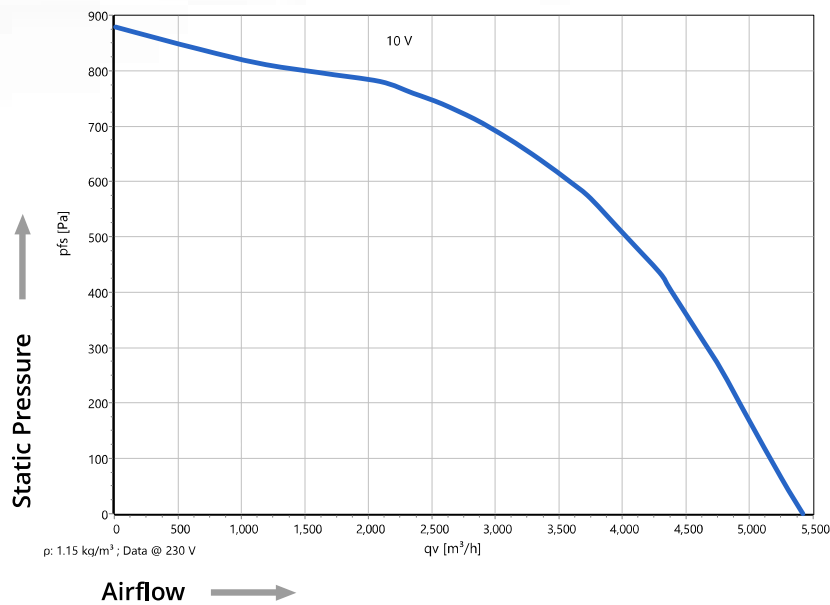
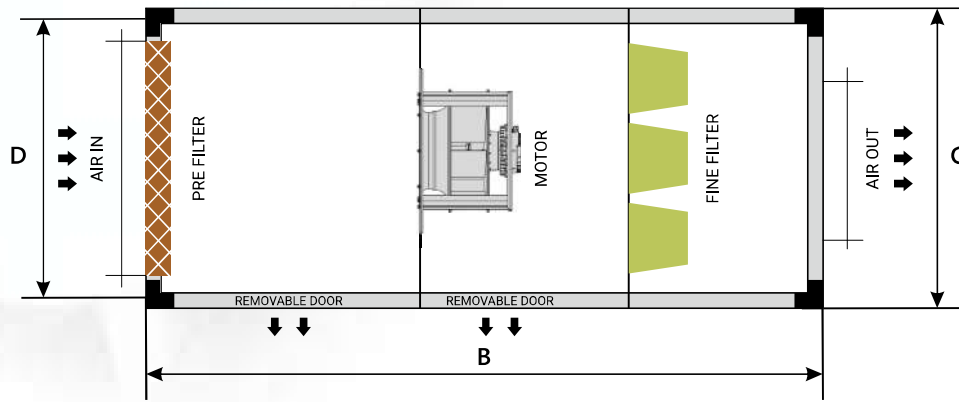


SPECIFICATIONS

Voltage [V]	Power [kW]	Current [A]	Frequency [Hz]	Efficiency Rating	RPM	dBA	Temp min / max	IP 54
230	0.51	2.25	50	IE4	2265	35-55	-25°C / +40°C	IP 54

CFM	Static	Dimensions				Filter Size Pre Filter / Fine Filter	Inlet Size	Outlet Size	Weight
		A	B	C	D				
1250	35	700	1590	580	520	610x305x50-1 / 610x305x305-1	350 x 550	300 x 300	85 Kg
1500	35	700	1710	700	640	610x610x50-1 / 610x610x305-1	550 x 550	400 x 400	97 Kg

AM- BF- VU- PF- EC- 355

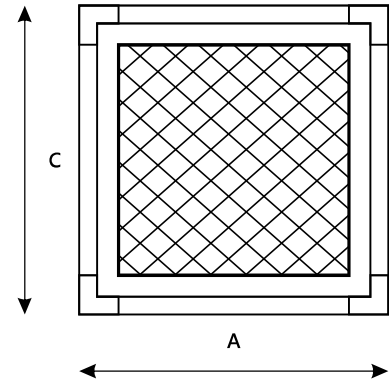
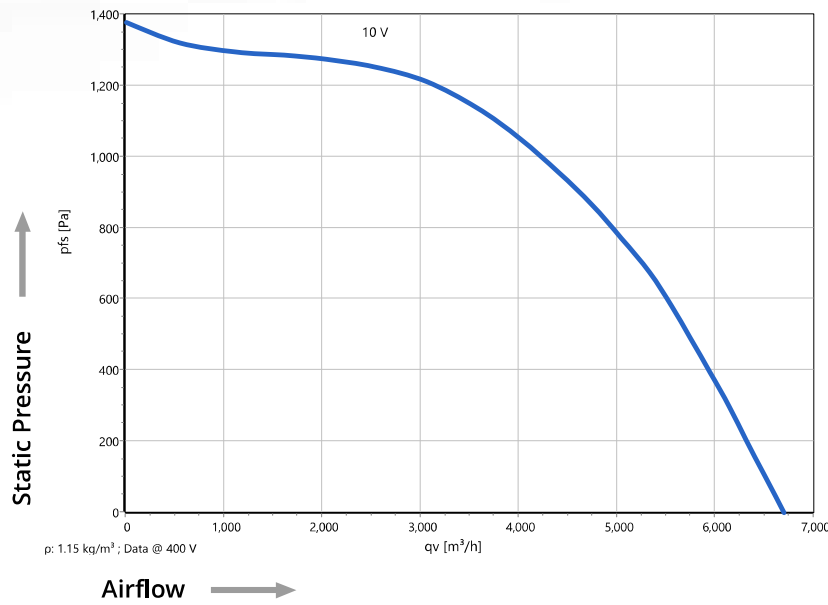
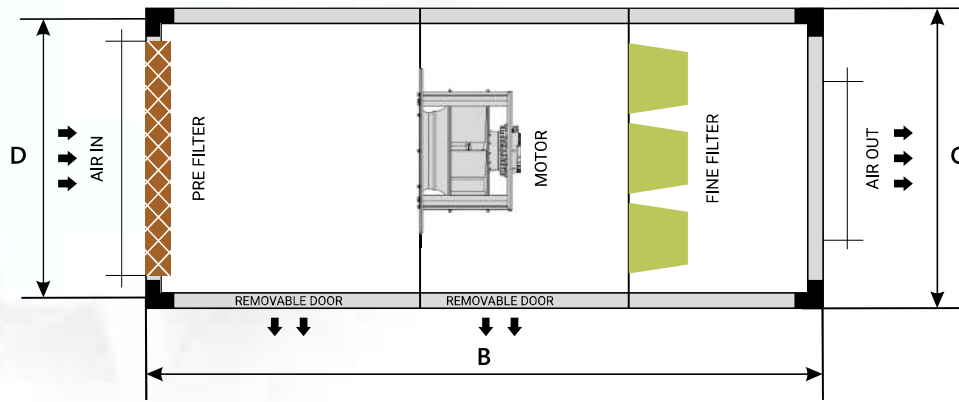


SPECIFICATIONS


Voltage [V]	Power [kW]	Current [A]	Frequency [Hz]	Efficiency Rating	RPM	dBA	Temp min / max	IP 54
230	1.08	4.75	50	IE5	2250	35-65	-25°C / +45°C	IP 54

CFM	Static	Dimensions				Filter Size Pre Filter / Fine Filter	Inlet Size	Outlet Size	Weight
		A	B	C	D				
1750	35	700	1710	700	640	610x610x50-1 / 610x610x305-1	550 x 550	400 x 400	108 Kg
2000	35	700	1710	700	640	610x610x50-1 / 610x610x305-1	550 x 550	400 x 400	108 Kg
2250	35	700	1710	700	640	610x610x50-1 / 610x610x305-1	550 x 550	400 x 400	108 Kg

AM- BF- VU- PF- EC- 355/3



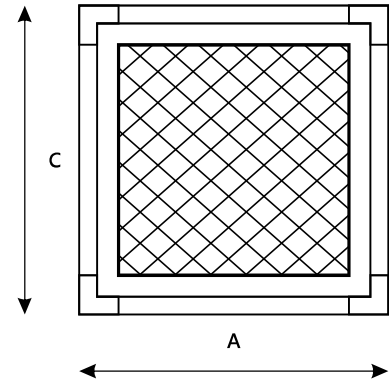
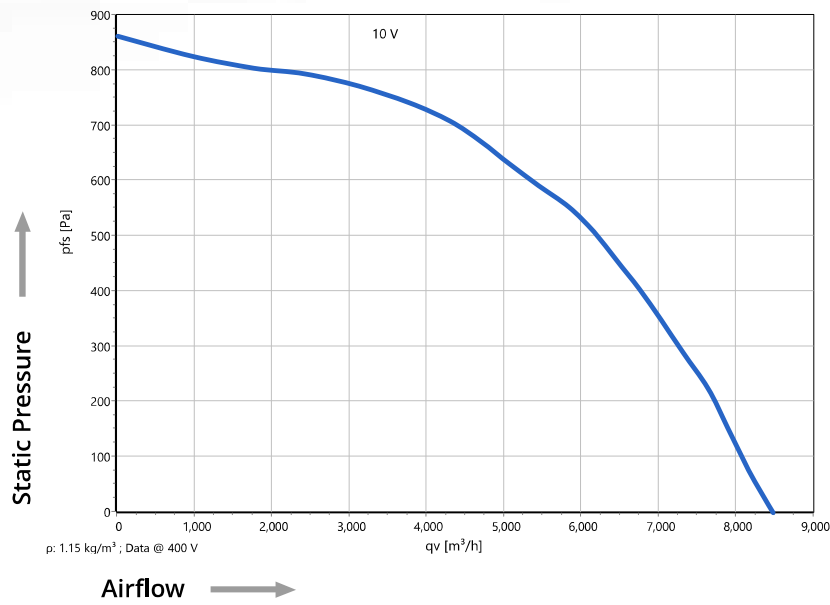
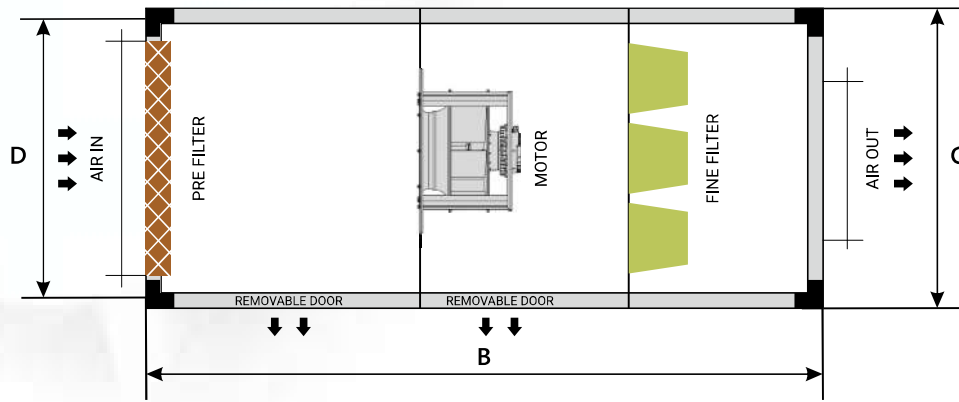
SPECIFICATIONS

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

AM- BF- VU- PF- EC- 355/3

CFM	Static	Dimensions				Filter Size Pre Filter / Fine Filter / Carbon	Inlet Size	Outlet Size	Weight
		A	B	C	D				
2500	35	1045	1940	700	640	610x610x50-1 / 610x305x50-1	450 x 450	400 x 400	143 Kg
						610x610x305-1 / 610x30x305-1			
2500	45	1045	1940	700	640	610x610x50-1 / 610x305x50-1	450 x 450	400 x 400	143 Kg
						610x610x305-1 / 610x30x305-1			
2500	60	1045	1940	700	640	610x610x50-1 / 610x305x50-1	450 x 450	400 x 400	143 Kg
						610x610x305-1 / 610x30x305-1			
2750	35	1045	1940	700	640	610x610x50-1 / 610x305x50-1	450 x 450	400 x 400	143 Kg
						610x610x305-1 / 610x30x305-1			
2750	45	1045	1940	700	640	610x610x50-1 / 610x305x50-1	450 x 450	400 x 400	143 Kg
						610x610x305-1 / 610x30x305-1			
2750	60	1045	1940	700	640	610x610x50-1 / 610x305x50-1	450 x 450	400 x 400	143 Kg
						610x610x305-1 / 610x30x305-1			
3000	35	1045	1940	700	640	610x610x50-1 / 610x305x50-1	450 x 450	400 x 400	143 Kg
						610x610x305-1 / 610x30x305-1			

AM- BF- VU- PF- EC- 450



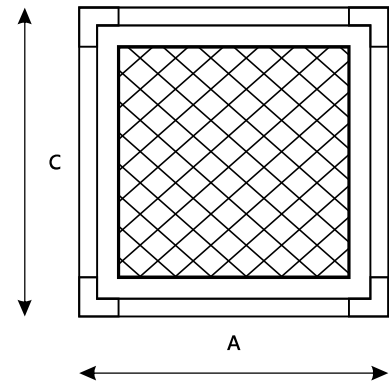
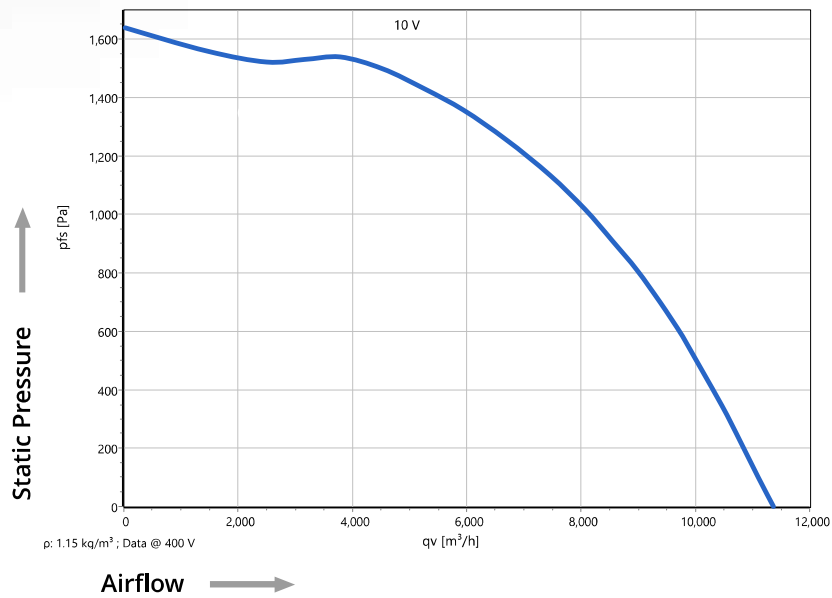
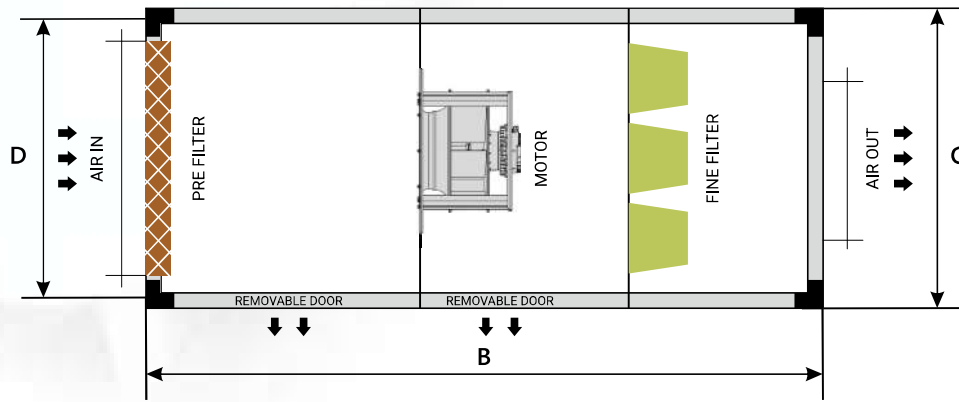
SPECIFICATIONS

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

AM- BF- VU- PF- EC- 450

CFM	Static	Dimensions				Filter Size Pre Filter / Fine Filter	Inlet Size	Outlet Size	Weight
		A	B	C	D				
3000	45	1045	1940	700	640	610x610x50-1 / 610x305x50-1	500 x 500	450 x 450	148 Kg
						610x610x305-1 / 610x30x305-1			
3000	60	1045	1940	700	640	610x610x50-1 / 610x305x50-1	500 x 500	450 x 450	148 Kg
						610x610x305-1 / 610x30x305-1			
3250	35	1045	1940	700	640	610x610x50-1 / 610x305x50-1	500 x 500	450 x 450	148 Kg
						610x610x305-1 / 610x30x305-1			
3250	45	1045	1940	700	640	610x610x50-1 / 610x305x50-1	500 x 500	450 x 450	148 Kg
						610x610x305-1 / 610x30x305-1			
3500	35	1350	1940	700	640	610x610x50-2	550 x 550	500 x 500	170 Kg
						610x610x305-2			
3500	45	1350	1940	700	640	610x610x50-2	550 x 550	500 x 500	170 Kg
						610x610x305-2			
3750	35	1350	1940	700	640	610x610x50-2	550 x 550	500 x 500	170 Kg
						610x610x305-2			
3750	45	1350	1940	700	640	610x610x50-2	550 x 550	500 x 500	170 Kg
						610x610x305-2			
4000	35	1350	1940	700	640	610x610x50-2	550 x 550	500 x 500	170 Kg
						610x610x305-2			

AM- BF- VU- PF- EC- 450IE5



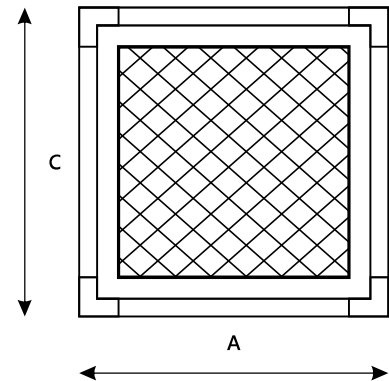
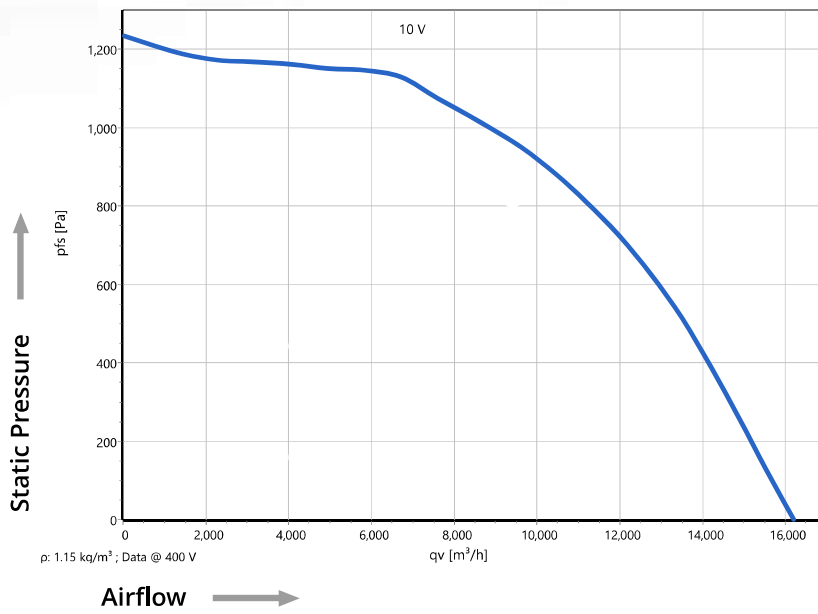
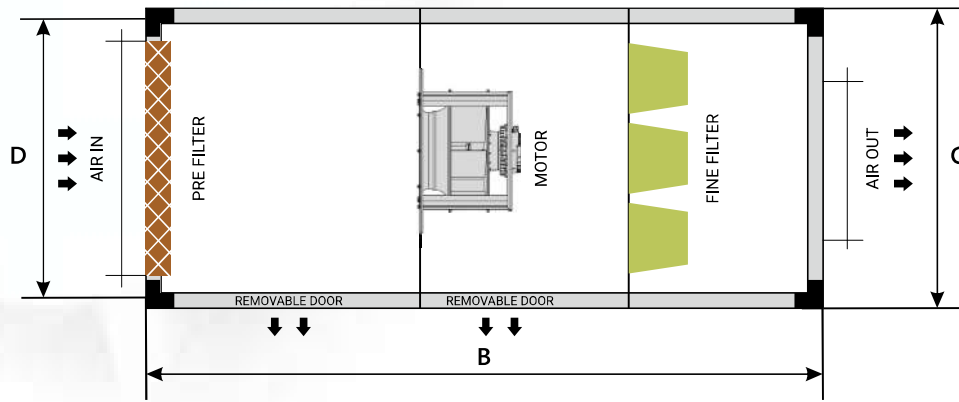
SPECIFICATIONS

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


AM- BF- VU- PF- EC- 450IE5

CFM	Static	Dimensions				Filter Size Pre Filter / Fine Filter	Inlet Size	Outlet Size	Weight
		A	B	C	D				
3250	60	1045	1940	700	640	610x610x50-1 / 610x305x50-1	500 x 500	450 x 450	148 Kg
						610x610x305-1 / 610x30x305-1			
3500	60	1045	1940	700	640	610x610x50-2	550 x 550	500 x 500	182 Kg
						610x610x305-2			
3750	60	1045	1940	700	640	610x610x50-2	550 x 550	500 x 500	182 Kg
						610x610x305-2			
4000	45	1045	1940	700	640	610x610x50-2	550 x 550	500 x 500	182 Kg
						610x610x305-2			
4000	60	1350	1940	700	640	610x610x50-2	550 x 550	500 x 500	182 Kg
						610x610x305-2			
4500	35	1350	1940	700	640	610x610x50-2	550 x 550	500 x 500	182 Kg
						610x610x305-2			
4500	45	1350	1940	700	640	610x610x50-2	550 x 550	500 x 500	182 Kg
						610x610x305-2			
4500	60	1350	1940	700	640	610x610x50-2	550 x 550	500 x 500	182 Kg
						610x610x305-2			
5000	35	1350	1940	1045	985	610x610x50-2 / 610x305x50-2	600 x 600	550 x 550	214 Kg
						610x610x305-2 / 610x305x305-2			
5000	45	1350	1940	1045	985	610x610x50-2 / 610x305x50-2	600 x 600	550 x 550	214 Kg
						610x610x305-2 / 610x305x305-2			
5000	60	1350	1940	1045	985	610x610x50-2 / 610x305x50-2	600 x 600	550 x 550	214 Kg
						610x610x305-2 / 610x305x305-2			
5500	35	1350	1940	1045	985	610x610x50-2 / 610x305x50-2	600 x 600	550 x 550	214 Kg
						610x610x305-2 / 610x305x305-2			
5500	45	1350	1940	1045	985	610x610x50-2 / 610x305x50-2	600 x 600	550 x 550	214 Kg
						610x610x305-2 / 610x305x305-2			

AM- BF- VU- PF- EC- 560



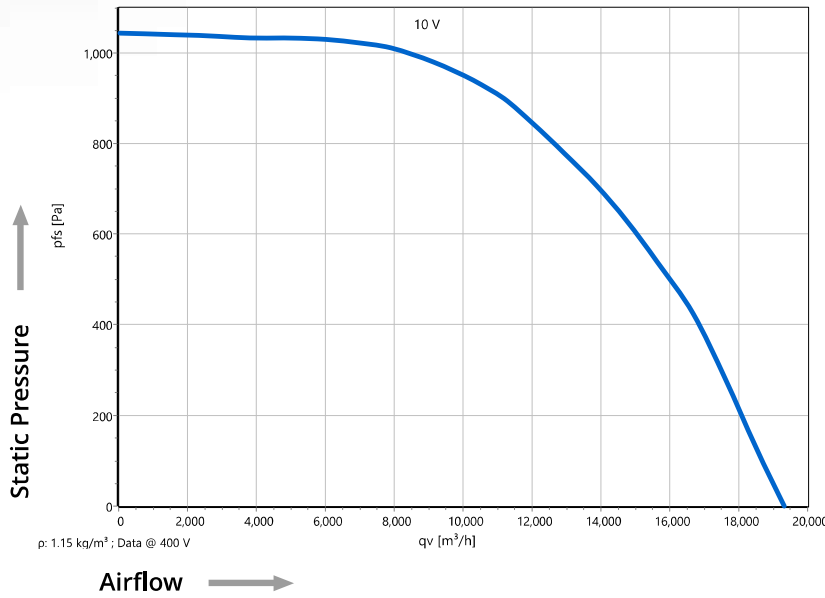
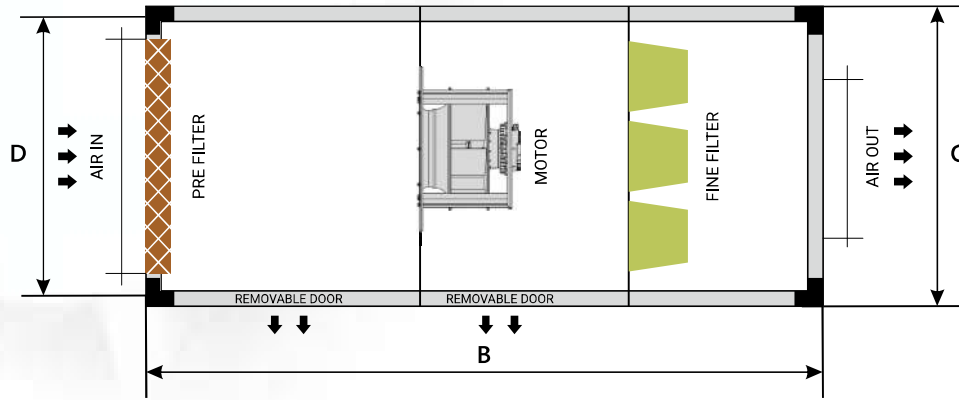
SPECIFICATIONS

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

AM- BF- VU- PF- EC- 560

CFM	Static	Dimensions				Filter Size Pre Filter / Fine Filter	Inlet Size	Outlet Size	Weight
		A	B	C	D				
5500	60	1350	2120	1045	985	610x610x50-2 / 610x305x50-2	600 x 600	550 x 550	249 Kg
						610x610x305-2 / 610x305x305-2			
6000	35	1350	2120	1045	985	610x610x50-2 / 610x305x50-2	600 x 600	600 x 600	249 Kg
						610x610x305-2 / 610x305x305-2			
6000	45	1350	2120	1045	985	610x610x50-2 / 610x305x50-2	650 x 650	600 x 600	249 Kg
						610x610x305-2 / 610x305x305-2			
6000	60	1350	2120	1045	985	610x610x50-2 / 610x305x50-2	650 x 650	600 x 600	249 Kg
						610x610x305-2 / 610x305x305-2			
6500	35	1350	2120	1045	985	610x610x50-2 / 610x305x50-2	650 x 650	600 x 600	249 Kg
						610x610x305-2 / 610x305x305-2			
6500	45	1350	2120	1045	985	610x610x50-2 / 610x305x50-2	650 x 650	600 x 600	249 Kg
						610x610x305-2 / 610x305x305-2			
6500	60	1350	2120	1045	985	610x610x50-2 / 610x305x50-2	650 x 650	600 x 600	249 Kg
						610x610x305-2 / 610x305x305-2			
7000	35	1350	2120	1350	1290	610x610x50-4	700 x 700	650 x 650	279 Kg
						610x610x305-4			
7000	45	1350	2120	1350	1290	610x610x50-4	700 x 700	650 x 650	279 Kg
						610x610x305-4			
7000	60	1350	2120	1350	1290	610x610x50-4	700 x 700	650 x 650	279 Kg
						610x610x305-4			
7500	35	1350	2120	1350	1290	610x610x50-4	700 x 700	650 x 650	279 Kg
						610x610x305-4			
7500	45	1350	2120	1350	1290	610x610x50-4	700 x 700	650 x 650	279 Kg
						610x610x305-4			
7500	60	1350	2120	1350	1290	610x610x50-4	700 x 700	650 x 650	279 Kg
						610x610x305-4			
8000	35	1350	2120	1350	1290	610x610x50-4	800 x 800	700 x 700	279 Kg
						610x610x305-4			
8000	45	1350	2120	1350	1290	610x610x50-4	800 x 800	700 x 700	279 Kg
						610x610x305-4			
8500	35	1350	2120	1350	1290	610x610x50-4	800 x 800	700 x 700	301 Kg
						610x610x305-4			

AM- BF- VU- PF- EC- 630



SPECIFICATIONS

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

CFM	Static	Dimensions				Filter Size Pre Filter / Fine Filter	Inlet Size	Outlet Size	Weight
		A	B	C	D				
8000	60	1350	2250	1350	1290	610x610x50-4 / 610x610x305-4	800 x 800	700 x 700	311 Kg
8500	45	1350	2250	1350	1290	610x610x50-4 / 610x610x305-4	800 x 800	700 x 700	311 Kg
8500	60	1350	2250	1350	1290	610x610x50-4 / 610x610x305-4	800 x 800	700 x 700	311 Kg