

CENTRIFUGAL KITCHEN FAN IN BOX / CONTAINER F/S CFM/T

 **VENKONAIR**



**AFTER INSTALLATION THE END USER SHOULD
KEEP THIS GUIDE FOR FUTURE REFERENCE
DO NOT THROW AWAY**

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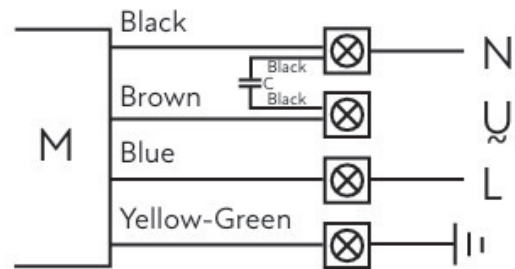
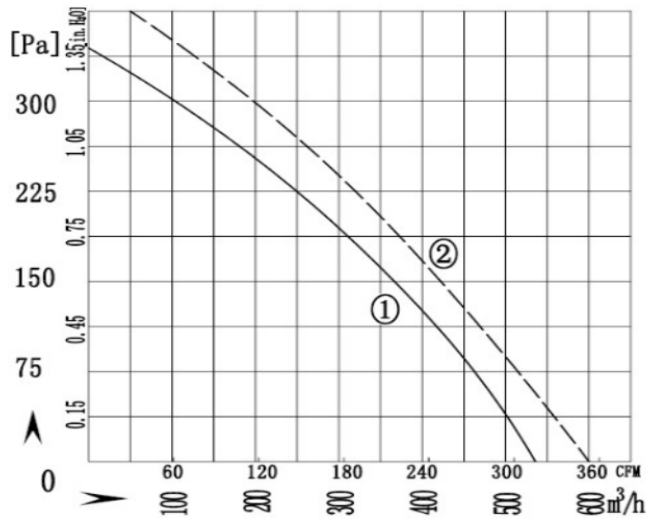
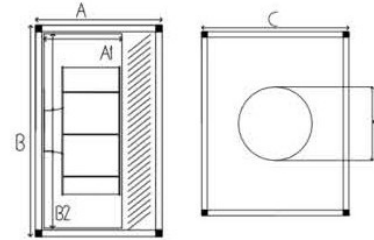
CENTRIFUGAL KITCHEN FAN IN BOX / CONTAINER

F/S CFM/2-600/190

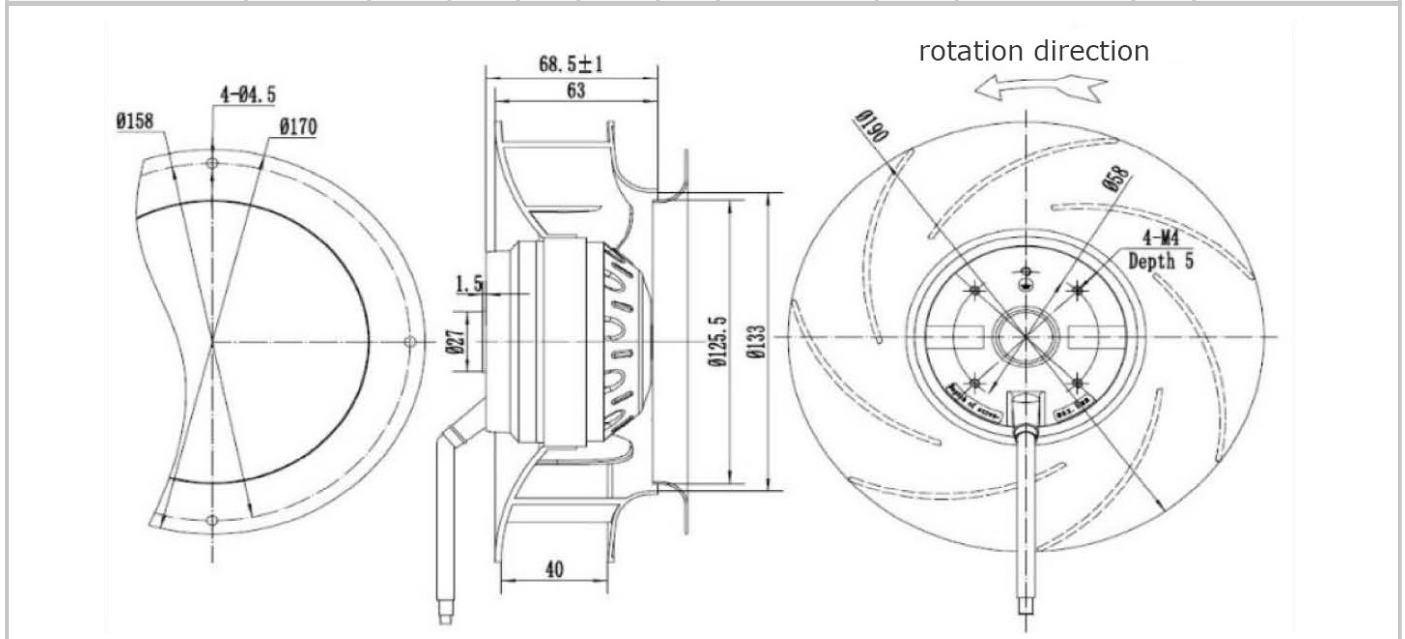
B190-63 BACKWARD CENTRIFUGAL FAN

DIMENSIONS	A	B	C	A1	B1	D	WEIGHT
F/S CFM/2-600/190	150	250	250	90	190	Φ120mm	9 KG

Impeller material	Plastic PA66
Protection Class	IP44
Approvals	CCC CE
Insulation class	F



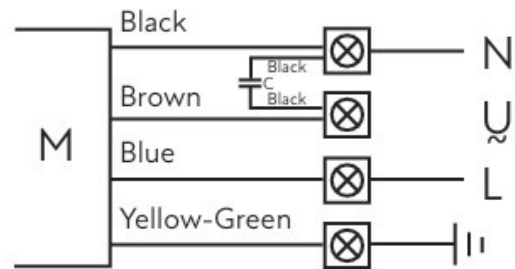
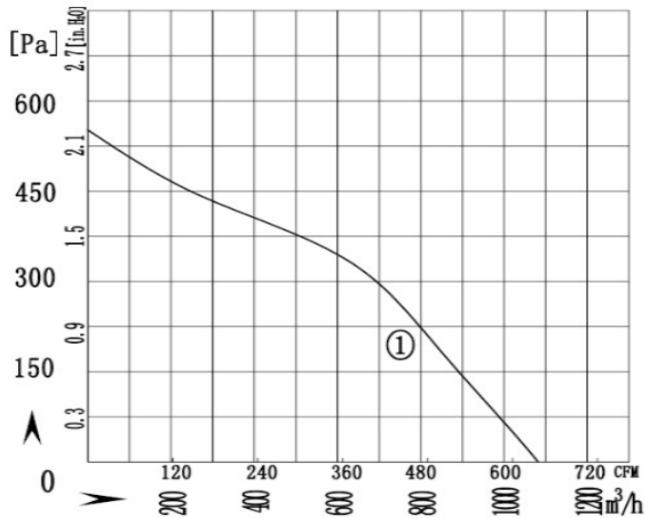
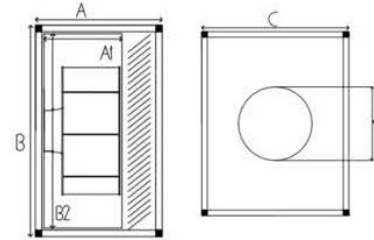
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TYPE	V	Hz	A	W	rpm	μF	m³/h /CFM	dB(A)	Min / Max (°C)	#	
B2E190-063A-AA10	220/230	50	0.27	60	2500	2.0	540/317	65	-30 / +60		



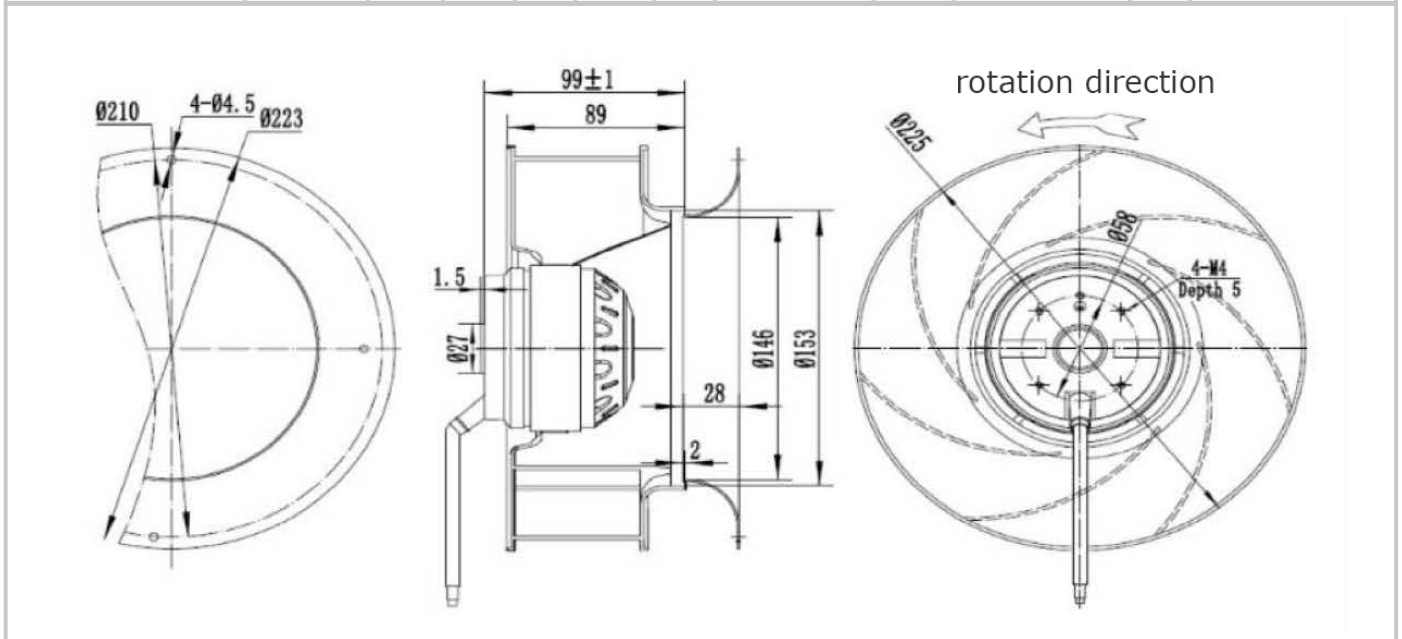


DIMENSIONS	A	B	C	A1	B1	D	WEIGHT
F/S CFM/2-1100/225	250	400	400	190	340	Φ150mm	12 KG

Impeller material	Plastic PA66
Protection Class	IP44
Approvals	CCC CE
Insulation class	F



	Voltage	Frequency	Current	Input Power	Speed	Capacitor	Air Flow	Noise	Temperature	Curve Number	Approvals
TYPE	V	Hz	A	W	rpm	μF	m³/h /CFM	dB(A)	Min / Max (°C)	#	
B2E225-089A-AE00	220/230	50	0.60	135	2600	4	1100/647	70	-30 /		RoHS





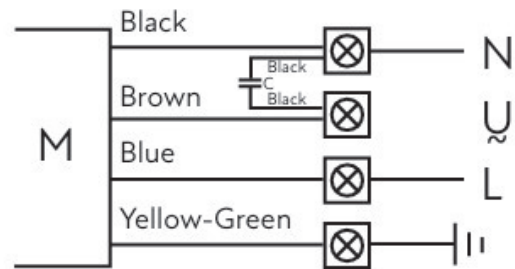
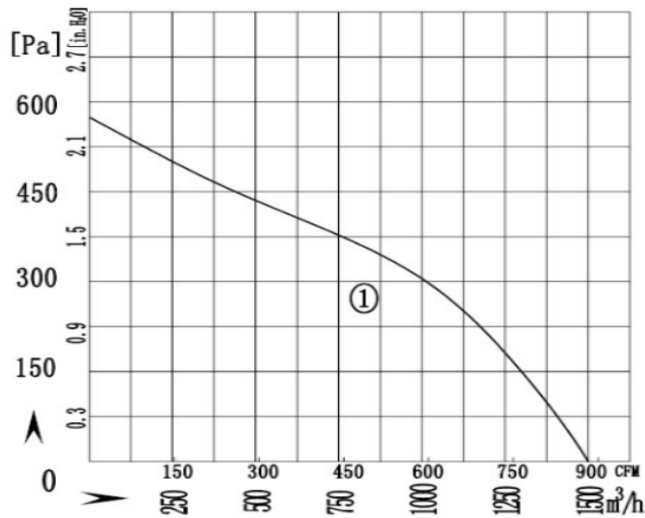
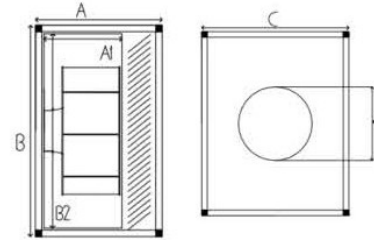
CENTRIFUGAL KITCHEN FAN IN BOX / CONTAINER

F/S CFM/2-1500/250

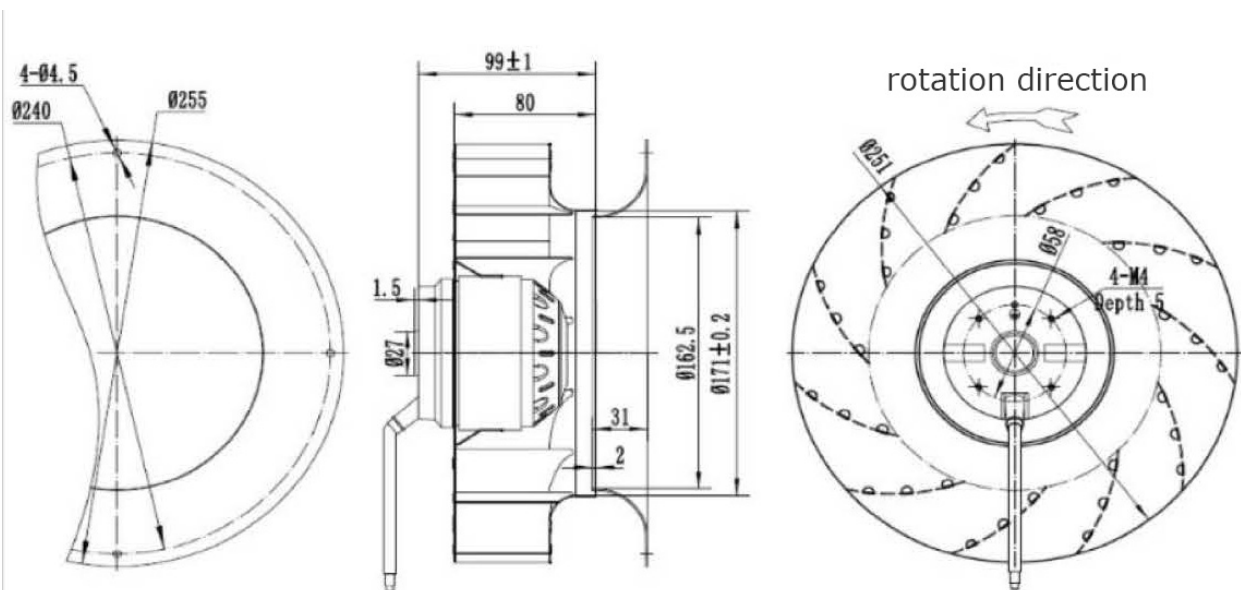
B250-80 BACKWARD CENTRIFUGAL FAN

DIMENSIONS	A	B	C	A1	B1	D	WEIGHT
F/S CFM/2-1500/250	250	400	400	190	340	Φ150mm	12 KG

Impeller material	Galvanised sheet metal
Protection Class	IP44
Approvals	CCC CE
Insulation class	F



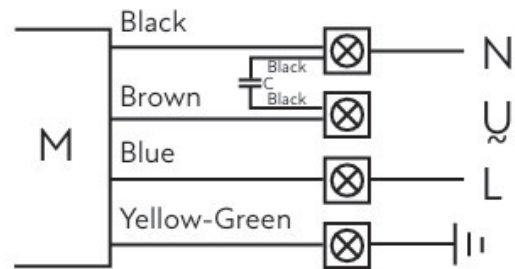
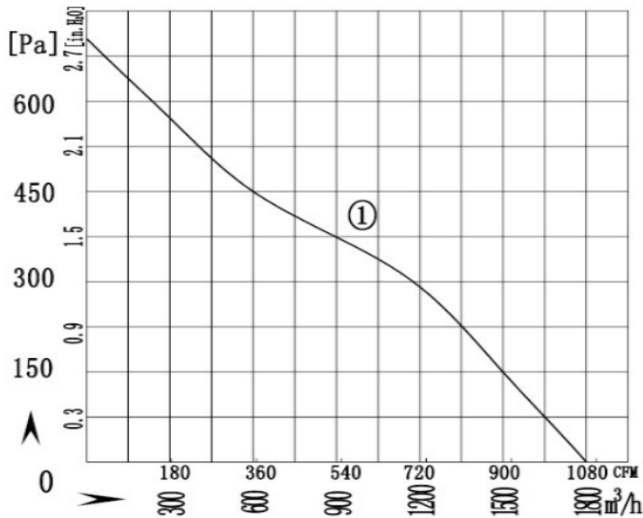
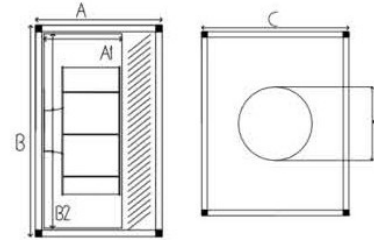
	Voltage	Frequency	Current	Input Power	Speed	Capacitor	Air Flow	Noise	Temperature	Curve Number	Approvals
TYPE	V	Hz	A	W	rpm	μF	m³/h /CFM	dB(A)	Min / Max (°C)	#	
B2E250-080A-AG00	220/230	50	1.05	230	2700	6	1480/870	72	-30 / +60	1	CCC, CE, RoHS



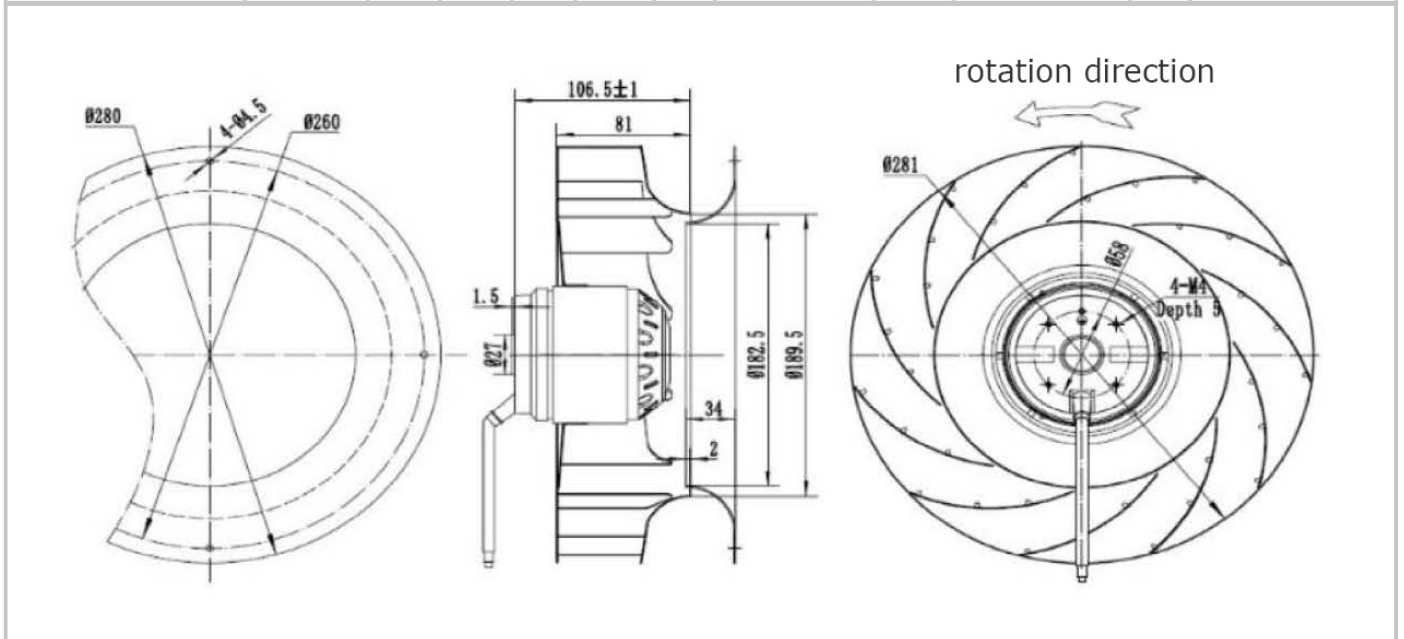


DIMENSIONS	A	B	C	A1	B1	D	WEIGHT
F/S CFM/2-1800/280	250	400	400	190	340	Φ200mm	13 KG

Impeller material	Galvanised sheet metal
Protection Class	IP54
Approvals	CCC CE
Insulation class	F



	Voltage	Frequency	Current	Input Power	Speed	Capacitor	Air Flow	Noise	Temperature	Curve Number	Approvals
TYPE	V	Hz	A	W	rpm	μF	m³/h /CFM	dB(A)	Min / Max (°C)	#	
B2E280-081A-AG00	220/230	50	1.1	230	2450	6	1800/1056	79	-30 / +60	1	CCC, CE, RoHS





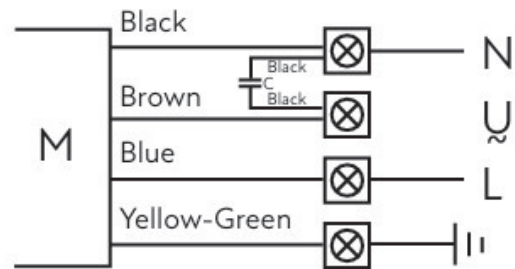
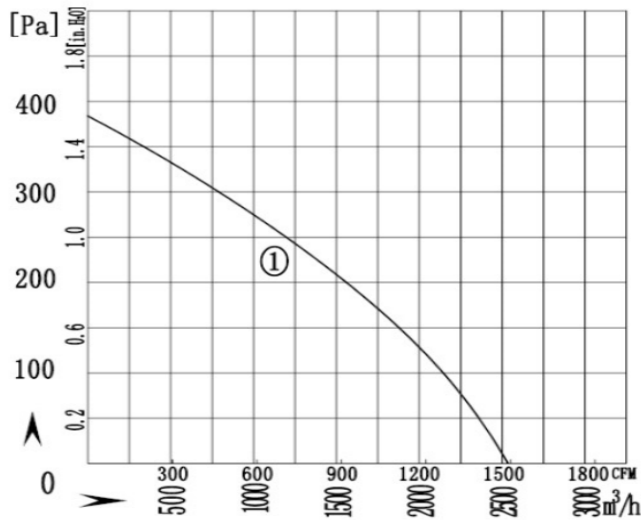
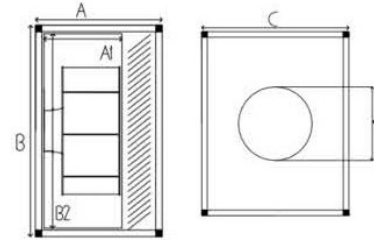
CENTRIFUGAL KITCHEN FAN IN BOX / CONTAINER

F/S CFM/4-2500/355

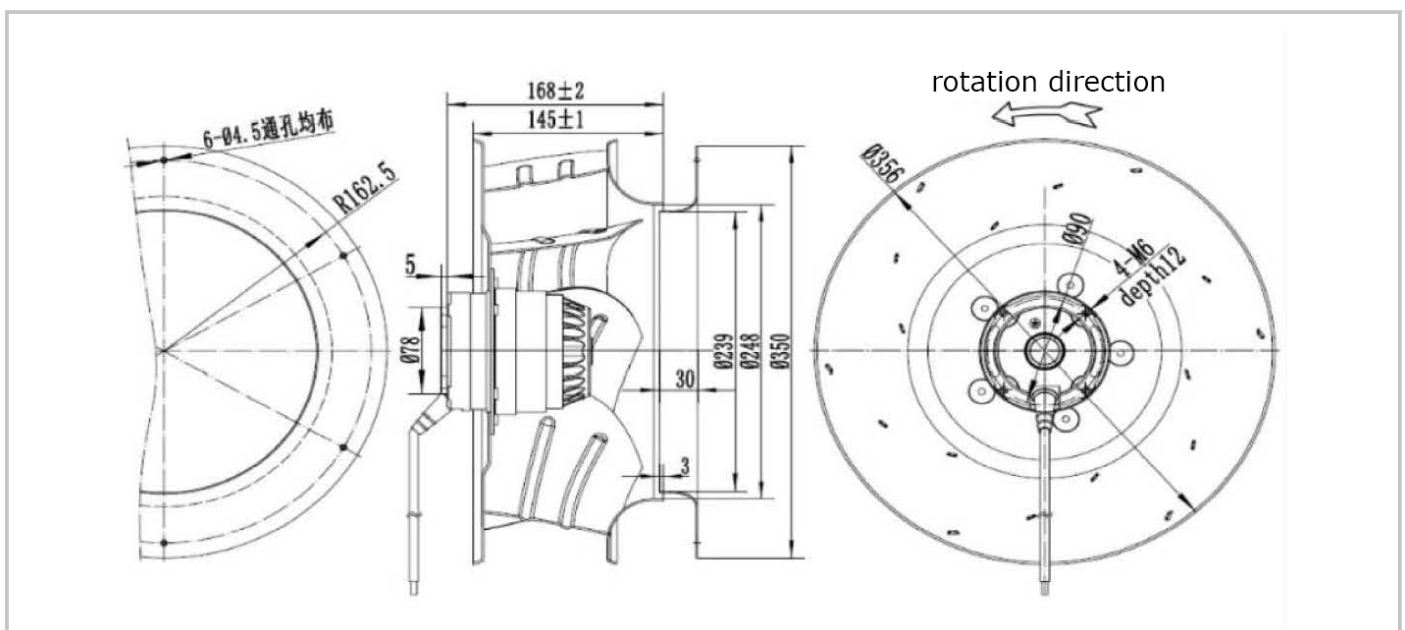
B355-145 BACKWARD CENTRIFUGAL FAN

DIMENSIONS	A	B	C	A1	B1	D	WEIGHT
F/S CFM/4-2500/355	350	500	500	290	440	Φ200mm	23 KG

Impeller material	Aluminium sheet
Protection Class	IP54
Approvals	CCC CE
Insulation class	F



	Voltage	Frequency	Current	Input Power	Speed	Capacitor	Air Flow	Noise	Temperature	Curve Number	Approvals
TYPE	V	Hz	A	W	rpm	μF	m³/h /CFM	dB(A)	Min / Max (°C)	#	
B4E355-145A-AN00	220/230	50	1.0	210	1400	7	2520/1482	63	-30 / +60	1	CCC, CE, RoHS



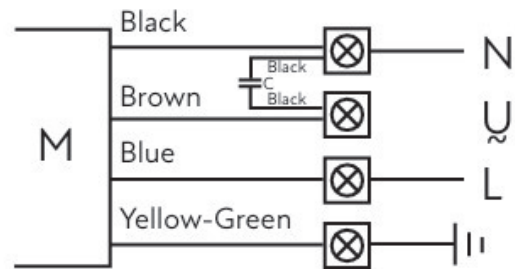
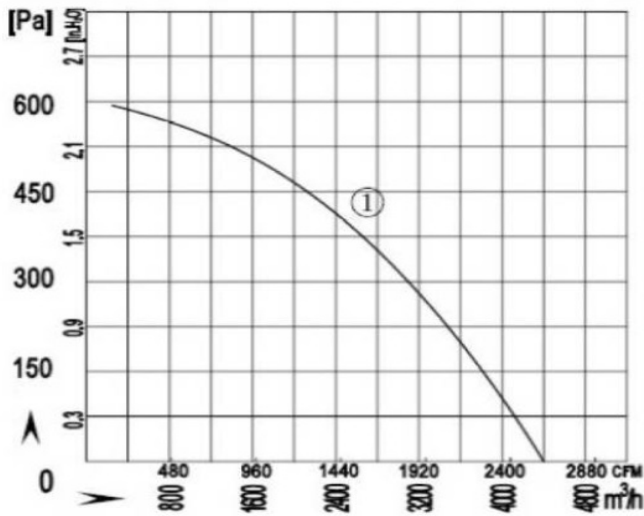
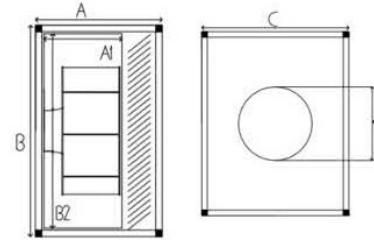


CENTRIFUGAL KITCHEN FAN IN BOX / CONTAINER

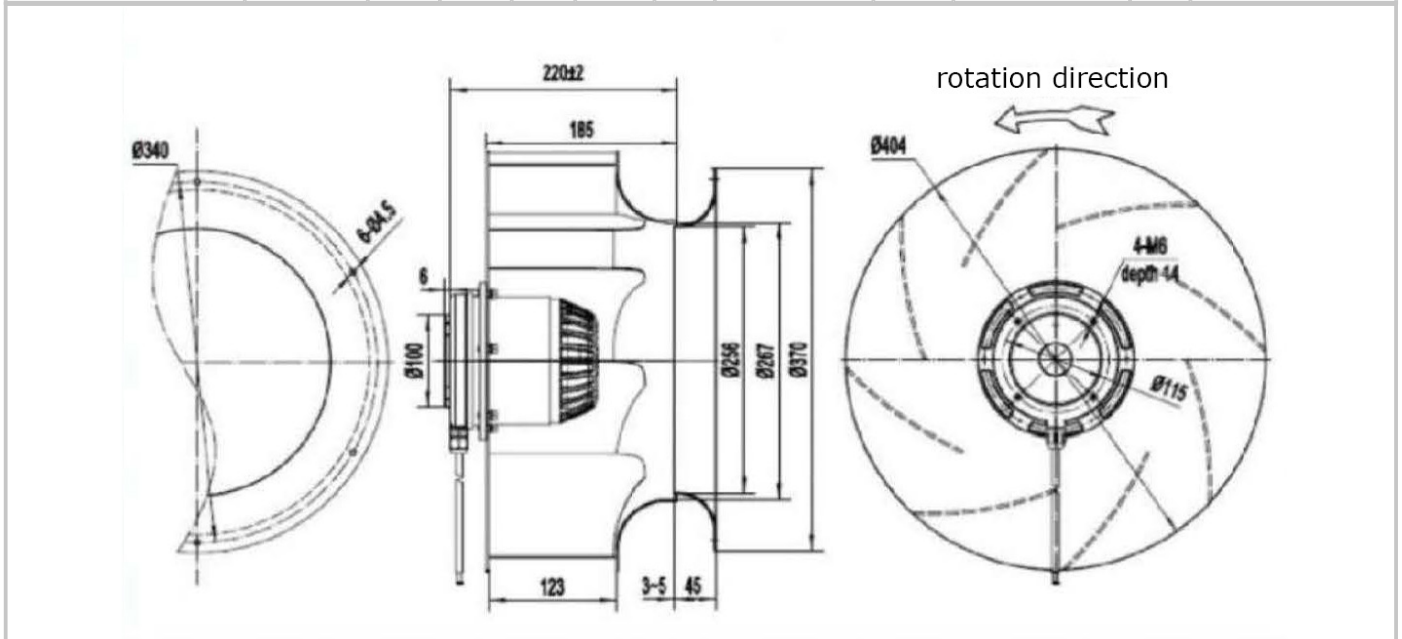
F/S CFM/4-4400/400 B400-185 BACKWARD CENTRIFUGAL FAN

DIMENSIONS	A	B	C	A1	B1	D	WEIGHT
F/S CFM/4-4400/400	400	550	550	290	440	Φ250mm	28 KG

Impeller material	Aluminium sheet
Protection Class	IP54
Approvals	CCC CE
Insulation class	F



	Voltage	Frequency	Current	Input Power	Speed	Capacitor	Air Flow	Noise	Temperature	Curve Number	Approvals
TYPE	V	Hz	A	W	rpm	μF	m³/h /CFM	dB(A)	Min / Max (°C)	#	
B4E400-185A-AS00	220/230	50	1.50	510	1380	10	4400/2855	69	-30 / +60	1	CCC, CE, RoHS





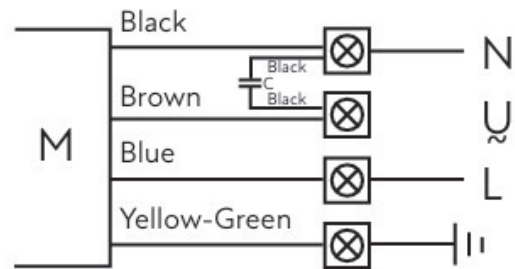
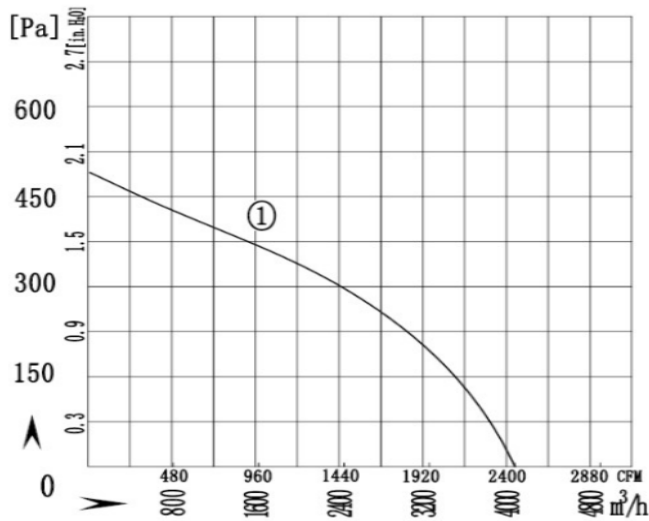
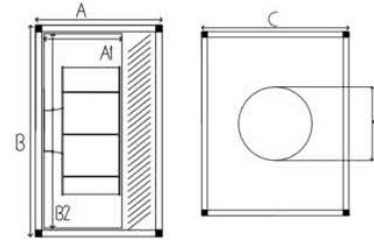
CENTRIFUGAL KITCHEN FAN IN BOX / CONTAINER

F/S CFM/4-4100/400

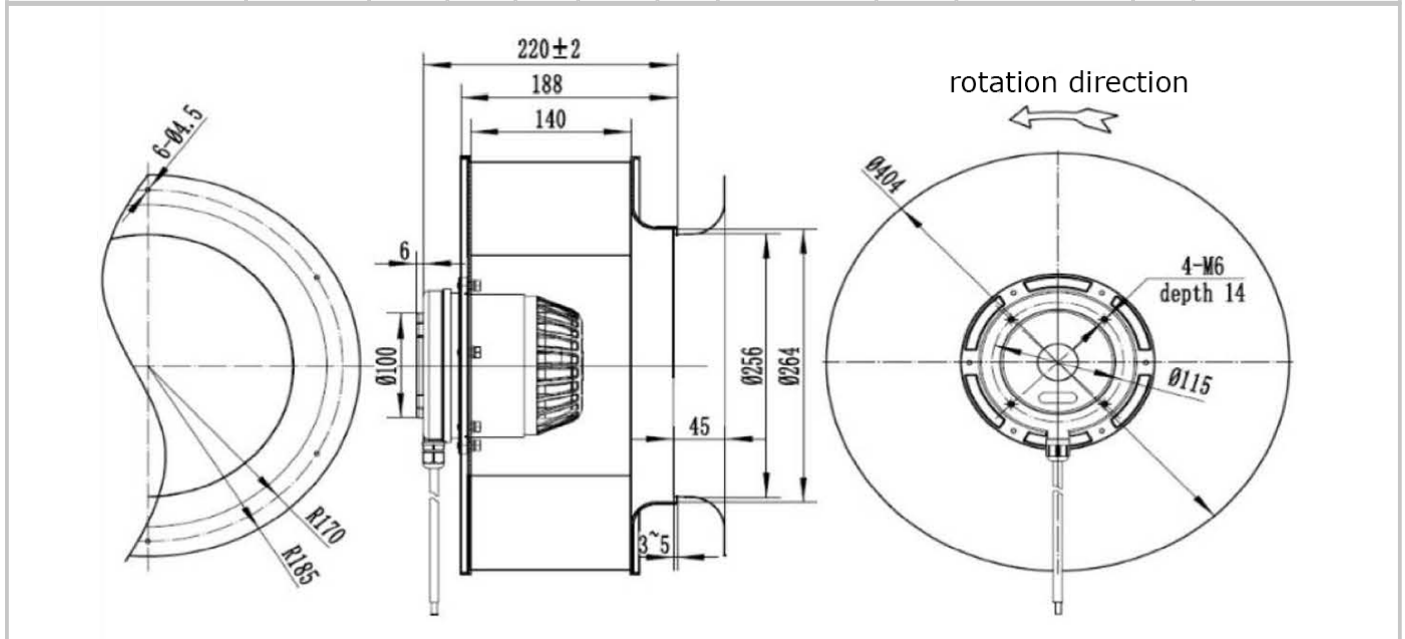
B400-188 BACKWARD CENTRIFUGAL FAN

DIMENSIONS	A	B	C	A1	B1	D	WEIGHT
F/S CFM/4-4100/400	400	500	500	290	440	Φ250mm	28 KG

Impeller material	Aluminium sheet
Protection Class	IP54
Approvals	CCC CE
Insulation class	F



TYPE	Voltage	Frequency	Current	Input Power	Speed	Capacitor	Air Flow	Noise	Temperature	Curve Number	Approvals
	V	Hz	A	W	rpm	μF	m³/h /CFM	dB(A)	Min / Max (°C)	#	
B4E400-188A-AS00	220/230	50	1.50	430	1380	10	4100/2411	66	-30 / +60	1	CE, RoHS



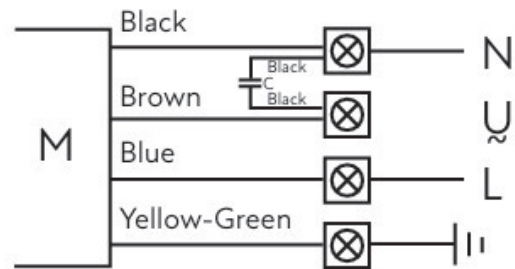
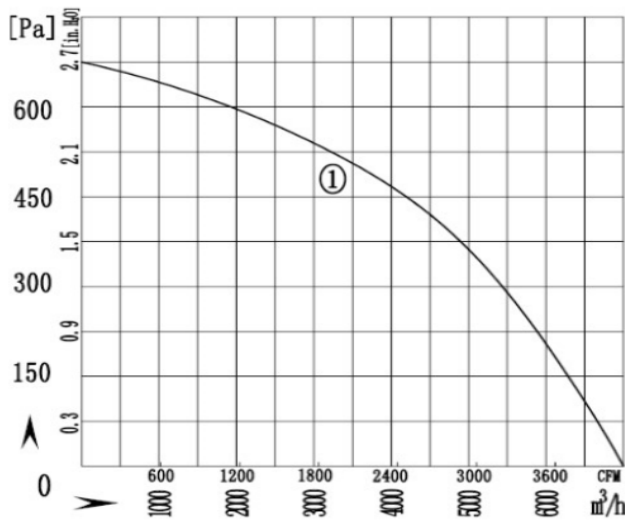
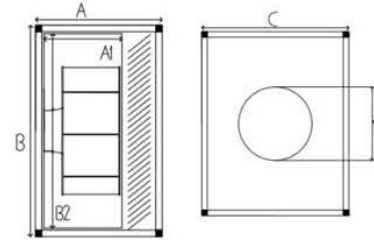


CENTRIFUGAL KITCHEN FAN IN BOX / CONTAINER

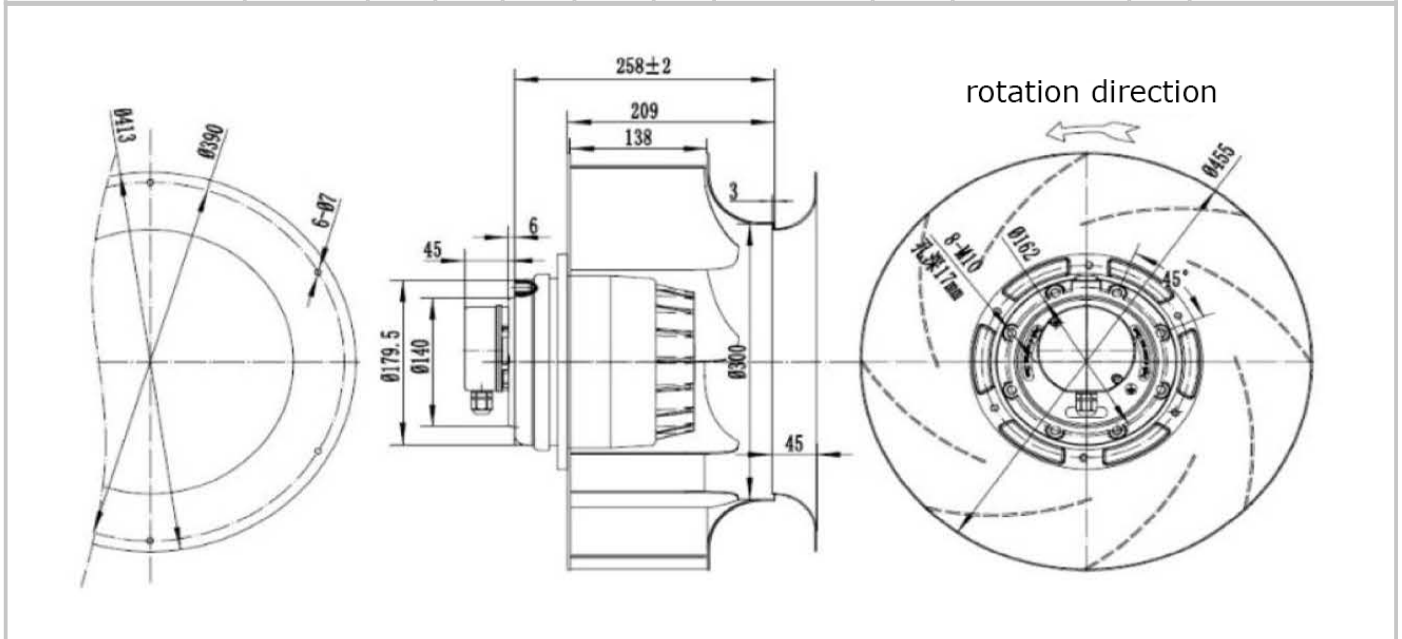
F/S CFT/4-7000/450 B450-209 V BACKWARD CENTRIFUGAL FAN

DIMENSIONS	A	B	C	A1	B1	D	WEIGHT
F/S CFT/4-7000/450	450	700	700	390	640	Φ350mm	45 KG

Impeller material	Aluminium sheet
Protection Class	IP54
Approvals	CCC CE
Insulation class	F



	Voltage	Frequency	Current	Input Power	Speed	Capacitor	Air Flow	Noise	Temperature	Curve Number	Approvals
TYPE	V	Hz	A	W	rpm	μF	m³/h /CFM	dB(A)	Min / Max (°C)	#	
B4D450-209A-AVMO	380/400	50	2.5	1100	1400	-	7000/4118	82	-30 / +60	1	CE, RoHS



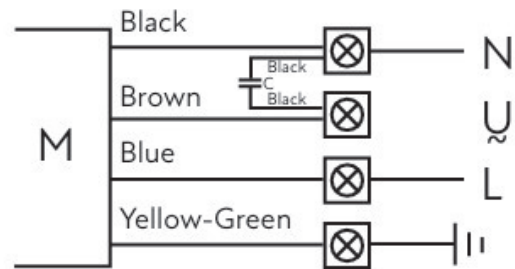
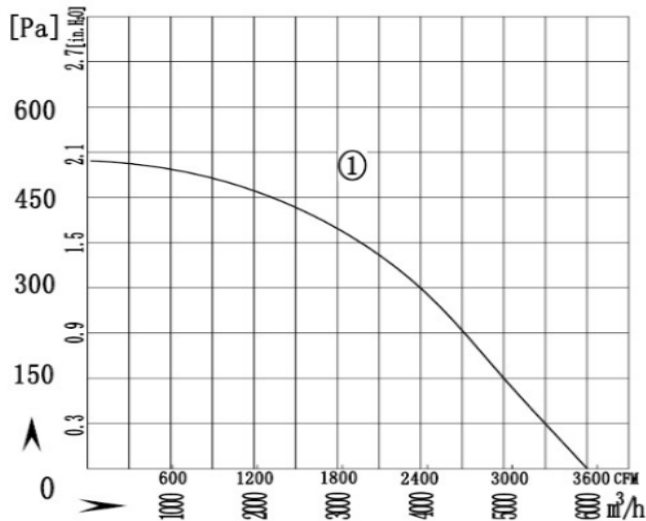
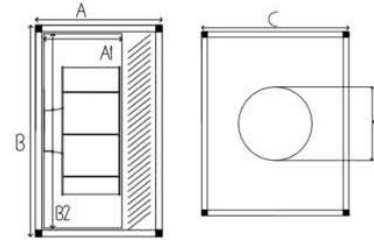


CENTRIFUGAL KITCHEN FAN IN BOX / CONTAINER

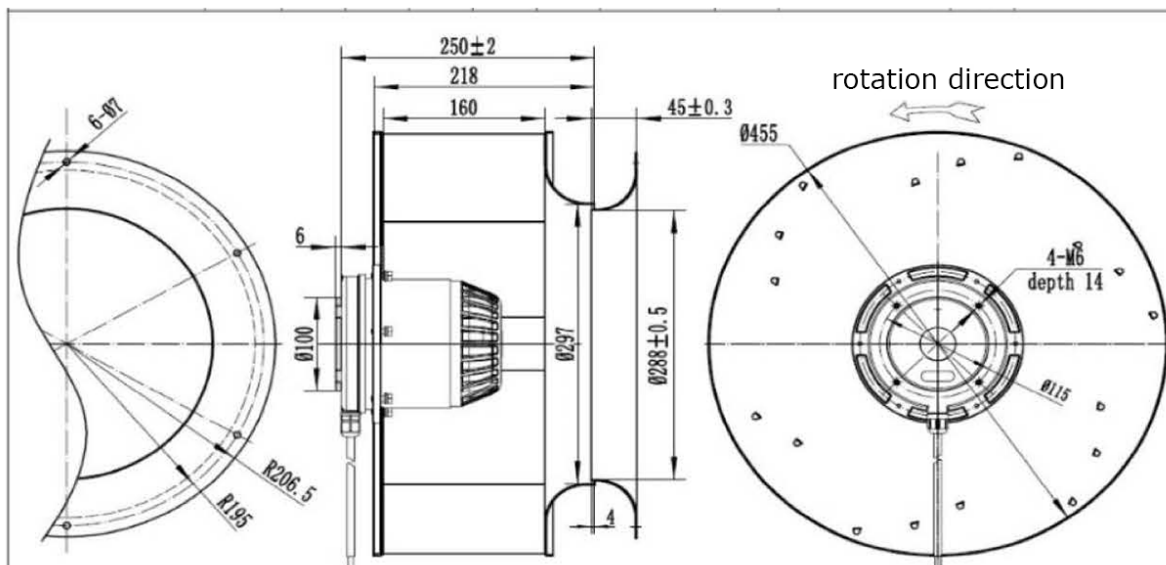
F/S CFM/4-6000/450 B450-218 BACKWARD CENTRIFUGAL FAN

DIMENSIONS	A	B	C	A1	B1	D	WEIGHT
F/S CFM/4-6000/450	450	700	700	390	640	Φ300mm	40 KG

Impeller material	Aluminium sheet
Protection Class	IP54
Approvals	CCC CE
Insulation class	F



	Voltage	Frequency	Current	Input Power	Speed	Capacitor	Air Flow	Noise	Temperature	Curve Number	Approvals
TYPE	V	Hz	A	W	rpm	μF	m³/h /CFM	dB(A)	Min / Max (°C)	#	
B4E450-218A-AT00	220/230	50	3.5	800	1350	16	6000/3529	79	-30 / +60	1	CE, RoHS



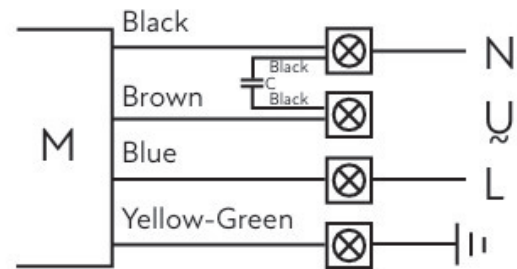
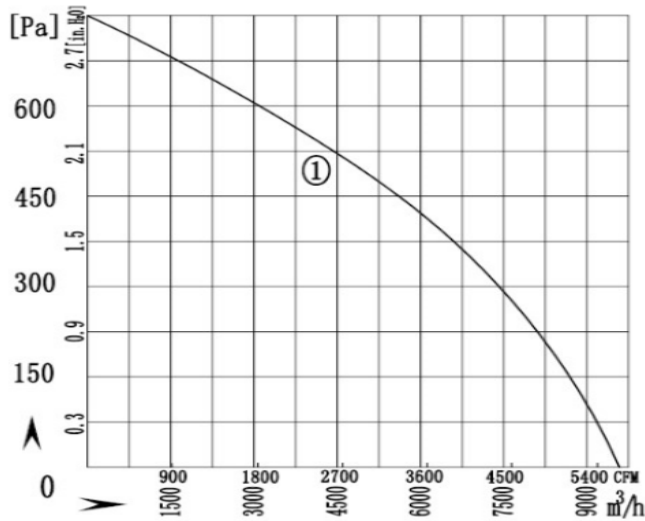
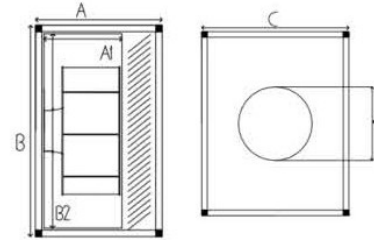


CENTRIFUGAL KITCHEN FAN IN BOX / CONTAINER

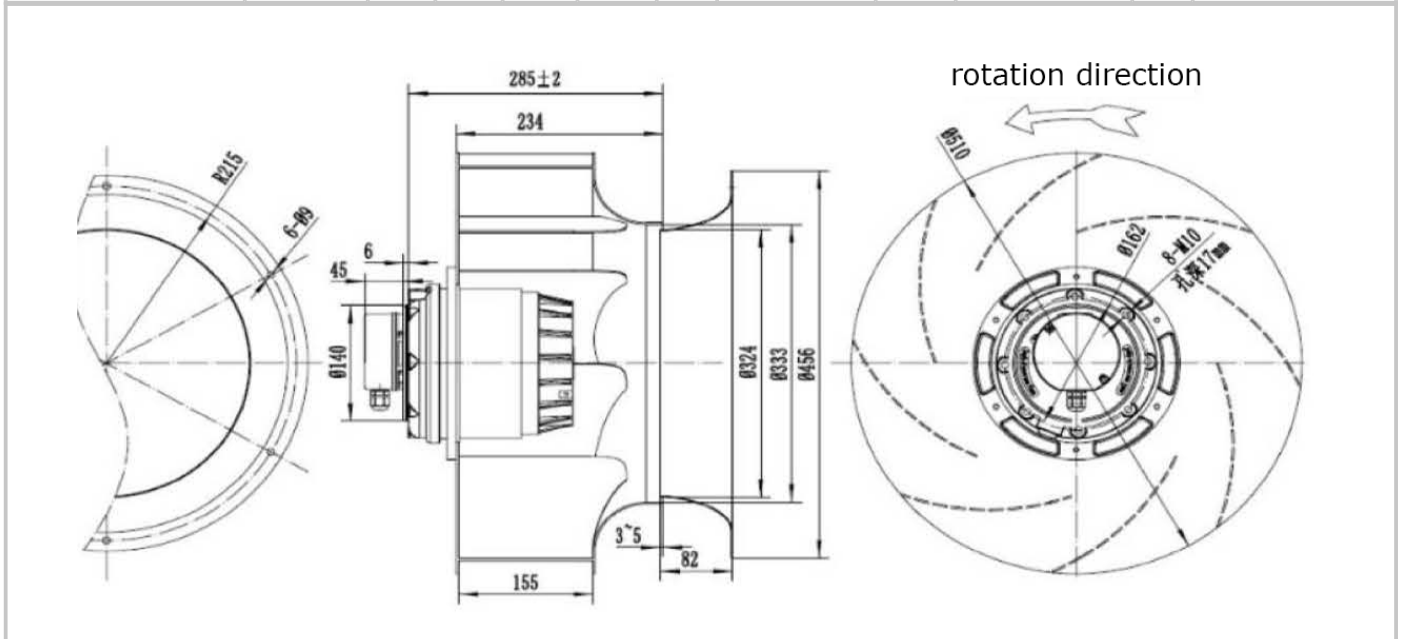
F/S CFT/4-9500/500 B500-234 BACKWARD CENTRIFUGAL FAN

DIMENSIONS	A	B	C	A1	B1	D	WEIGHT
F/S CFT/4-9500/500	500	700	700	440	640	Φ400mm	55 KG

Impeller material	Aluminium sheet
Protection Class	IP54
Approvals	CCC CE
Insulation class	F



	Voltage	Frequency	Current	Input Power	Speed	Capacitor	Air Flow	Noise	Temperature	Curve Number	Approvals
TYPE	V	Hz	A	W	rpm	μF	m ³ /h /CFM	dB(A)	Min / Max (°C)	#	
B4D500-234A-AVMO	380/400	50	2.6	1500	1400	-	9500/5588	80	-30 / +60	1	CE, RoHS





ENGLISH

This instruction manual contains important information and must be read carefully by competent persons prior to any handling, transport, inspection or installation of this product. Every care has been taken in the preparation of the instructions and information; however, it is the responsibility of the installer to ensure the system complies with relevant national and international regulations, and safety. The manufacturer, Venkonair SHPK accepts no responsibility for breakages, accidents or any inconvenience caused by failure to comply with the instructions contained in this manual. The fans referred to in this manual have been manufactured in accordance with rigorous quality control and International standard ISO 9001. Once the product has been installed, this manual is to be retained by the end user.

Warnings

Any work including transport, installation, inspection, maintenance, service spares replacement, repair and final end of life disposal must be carried out by competent persons and supervised by competent executive.

Fan equipment should be electrically isolated and locked out before any work started.

This fan must not be used in hazardous area.

The Installer, User is responsible for ensuring that the fan is installed, operated and serviced by qualified personnel, acting in accordance with all safety precautions applicable and as required by law, regulations and standards in the country applicable.

Safety protective clothing, equipment, hearing protection, and tools may be required.

All fans are designed and manufactured in accordance with EC Directive. Safety guard accessories are available from VENKONAIR SHPK if required due to specific installation.

This instruction manual is subject to modifications due to further technical developments of the fan described, images and drawings may be simplified representations. Due to improvements and modifications the fan operated may differ from the representations. We reserve the right to vary the product without prior notice. Working ambient temperature for fan equipment should not be exceeded, typically this will be within -20°C to +40°C, unless stated otherwise.

Allow safe access to fan for inspection, maintenance, replacement of parts, cleaning / housekeeping.

The user is responsible for effective maintenance, replacement of parts, cleaning, especially where dust may form inside the fan.

Do not remove safety protection guards or open access doors when the fan is in operation.

If the fan is used in atmospheres with more than 95% Relative Humidity (RH), consult the VENKONAIR SHPK Technical Service first.

If the fan is used to extract air from premises where a boiler or other combustion appliance is installed, make sure that the room has sufficient air intakes to ensure adequate combustion.

The following risks have been identified for consideration

Installation: incorrect installation or function represents a risk to safety.

Rotational speed: identified on fan name plate and motor. Never exceed this speed.

Rotation of impeller: identified on fan with direction arrows. Do not run impeller in reverse.

Working temperature: identified on fan nameplate and motor. Never exceed this range.

Foreign bodies: ensure no risk from debris, or material that could be drawn into fan.

Electrical risks: motor name plate data should never be exceeded, effective connection to earth, and all checked regularly every 6 months.

Protection devices: These should always be operational and never disconnected.

Means for disconnection must be incorporated in the fixed wiring according with the wiring rules. An external disconnecting device, which will function as the "designated" disconnect device must be provided, and:

- 1) It shall disconnect the "Line", while disconnection of the "Neutral" is optional;
- 2) Its OFF-position shall be clearly marked;
- 3) Not to position the equipment so that it is difficult to operate it; and
- 4) The protection current device must be at least 10A, 250V, curve Type C.

Means for disconnection must be incorporated in the fixed wiring according with the wiring rules. An external disconnecting device, which will function as the "designated" disconnect device must be provided, and:

- 1) It shall disconnect the "Line", while disconnection of the "Neutral" is optional;
- 2) Its OFF-position shall be clearly marked;
- 3) Not to position the equipment so that it is difficult to operate it;
- 4) The protection current device must be at least 10A, 250V, curve Type C;
- 5) This appliance is to be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30 mA.

Transport, lifting

Fan equipment and packaging are protected from adverse atmosphere, especially water, sand, dust, vibration and excessive temperature. The packaging used for this fan has been designed to support normal transporting conditions.

The fan must always be transported in its original packaging. Do not accept delivery if the fan is not in its original packaging or shows clear signs of having been damaged.

Do not place heavy weights on the packaging and avoid impact damage. Any lifting equipment must be safe and of suitable capacity for weight and size. Special attention may be required to ensure fan assembly does not distort or tilt as weight distribution may vary.

When Fan equipment is carefully lowered or placed on a surface, be it temporary, during lifting, positioning, storage or permanent, this must be a flat surface to avoid distortion of fan casing or fan assembly.

Storage

Storage must be in a safe, flat, controlled environment to prevent damage, especially from water, sand, dust, moisture, corrosion, temperature. Recommend that duct connections (inflow and outflow) are closed to avoid dust/debris entering the equipment.

These data may also apply to an installed fan, which is not put into operation for extended period.

Installation

Fan equipment should be electrically isolated and locked out before any work started.

Before any installation work is started, ensure that fan equipment is correct for application. Location for installation is solid, level, flat and suitable for mounting fan assembly.

Fan should be located in position, and assembled with any accessory equipment supplied, on relevant mounting, anti-vibration mountings, safety protection guards, on a solid level base to avoid any distortion and misalignment and with correct air direction as shown on nameplate. Fan should then be leveled on any anti-vibration mountings. Flexible connectors must be taught to ensure no disruption to air flow, especially on inlet to fan.



Start Up

Check fan equipment name plate data is appropriate to the location electrical supply, especially Voltage, Frequency, Phase, Amps, speed are correct.

Check earth connections, electrical terminations and terminal box lid, with any seals, if fitted, are correct.

In compliance with Machine Directive, if the fan is accessible to operators and is a health and safety risk, adequate protection must be fitted, information for safety equipment, including guards, can be found on our Venkonair SHPK website and catalogue.

Check all rotating parts have free, unobstructed movement.

Check there are no foreign bodies inside the fan or that can be drawn into, or fall into fan.

Check the structure is complete and has no damage.

Check installation and area is safe and energise fan and start motor. Check that the impeller and airflow direction is correct, check current does not exceed fan equipment nameplate data.

After two hours of operation, check that all fixings are tight and adjust if necessary.



This appliance is considered to be suitable for use in countries having a warm damp equable climate as specified in IEC 60721-2-1. It may also be used in other countries.

Electric motors

Electrical connections are made in accordance with connection diagram in the motor instructions and/or inside motor terminal box.

In ventilation mode, the motor must be protected by a thermal magneto protection device.

Many Venkonair SHPK fans are supplied with a cable gland for typical electrical power cable connection, to assist installation. However, if Installer uses a cable requiring a differing cable gland, this is to be supplied by the Installer, no alternative is offered by Venkonair SHPK. The Installer is responsible to ensure that cable, and cable gland, are suitable and safe for application according to country regulations.

Ensure system operation is safe in event of power cut/power outage/disruption to power supply. If ventilation is stopped due to disruption to power supply, ensure no risk due to excessive temperature (electrical heater). Care may be needed when restarting fan after disruption to power supply. Motors are supplied with permanently greased or sealed for life bearings.

Motors with speed control via Variable Speed Drive (VSD) Frequency Inverter, should not be run in excess of nameplate speed. In general applications, we recommend not to run at less than 20Hz and never less than 20% of nameplate speed without reference to manufacturer, since this may damage the motor.

If you are using cable longer than 20 meters between the drive and the motor, add output sinusoidal filter.

If you are using cable longer than 50 meters between the drive and the motor, add output EMC filter.

Maintenance – repairs

Maintenance/repairs must be carried out by competent personnel and in accordance with applicable International, National and Local regulations. Fan equipment should be electrically isolated and locked out before any work started.

Fan equipment should be regularly cleaned, frequency depending upon service load and application, but no less than every 6 months.

Fan equipment for dust applications may require more frequent cleaning to ensure safe operation. Cleaning should include all areas where dust can accumulate in the fan equipment.

Special attention should be made to any unusual sounds, vibration or temperature. If any problems are detected the fan equipment should be stopped immediately and cause inspected. The impeller and blades should be regularly checked for damage that could cause imbalance in the moving parts.

Replacement parts

Do not start working until all relevant safety procedures have been read, understood and actioned correctly.

Ensure that personnel are competent for work required, spare parts are correct for application, tools and materials to be used are available and safe for environment.

Identify components, bolts, fixings to be removed, and identify location to ensure replaced in same location, this can be done by marking with number/letter/colour to bolt fixing and any associated spacing material to identify location. This is especially important for motor fixings to supports, and impeller shaft fixings to supports, where packing/spacing/shim material is used to adjust motor/impeller shaft center line, and hence final impeller position.

Good practice, good/bad installation arrangement

Fans are designed and performance tested in accordance with standard duct arrangements. Thus they should be installed correctly without any adverse installation effect. Typically fans should be installed so that air entry is clear, unobstructed, non-turbulent and discharge does not hinder airflow, since air turbulence adversely affects impeller performance.

End of life disposal

Disposal must be carried out by competent personnel and in accordance with applicable International, National and Local regulations.

Isolate fan equipment and any associated electrical equipment and lock off.

Remove electrical connections.

Disconnect fan equipment from duct connections and cover connections with plastic sheet to prevent exposure to any residue material in fan equipment, and any contamination of ducts.

Dismantle and dispose in accordance with applicable National and International laws and regulations, those parts whose service life has expired.



In accordance with EC Directive and our responsibility for future generations, we are obliged to recycle all the materials we can. Therefore, please deposit all waste material and packaging in their corresponding recycling containers and hand in the replaced units to the nearest handler of this type of waste product.

AFTER INSTALLATION THE END USER SHOULD
KEEP THIS GUIDE FOR FUTURE REFERENCE
DO NOT THROW AWAY

EN



 **VENKONAIR**

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TIRANE

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