INSTALLATION & OPERATING INSTRUCTIONS

AVENTA TURBO

In-Line Centrifugal Fans

AIRFLOW™

INTRODUCTION

Please read these instructions before commencing installation and retain for future reference.

DESIGNATION

Aventa Turbo centrifugal in-line fans with a rotor diameter from 190 to 280mm, hereinafter referred to as the fans, are designed to ventilate domestic and commercial premises (residential rooms, offices, shops, garages, kitchens, lavatories and other premises heated during winter time).

Air should not contain dust and other solid additives as well as sticky substances and fibre materials. The temperature of ambient air should not be higher than the values indicated.

The fans are installed in horizontal and in vertical positions in ventilation ducts and may be used for both exhaust and input ventilation.

The fans are designed for long-term operation without disconnection from power supply.

According to their type electro safety, the fans fall into the equipment of Class II.

The level of protection from access to dangerous parts and from water penetration is IPX4.

Before commencing work ensure electrical supply is isolated from the mains.

DIMENSIONS

Fan Type	Dimensions, mm							Weight (kg)
	Ø D	Ø D	C	A	B	L	E	
AV100B	100	250	230	27	30	270	30	2.15
AV125B	125	250	217	27	30	270	30	2.2
AV150B	150/160	300	286	30	30	320	30	2.6
AV200B	200	340	280	30	30	354	40	4.0
AV250B	250	340	265	30	30	354	40	4.5
AV315B	315	400	280	40	40	414	40	5.1

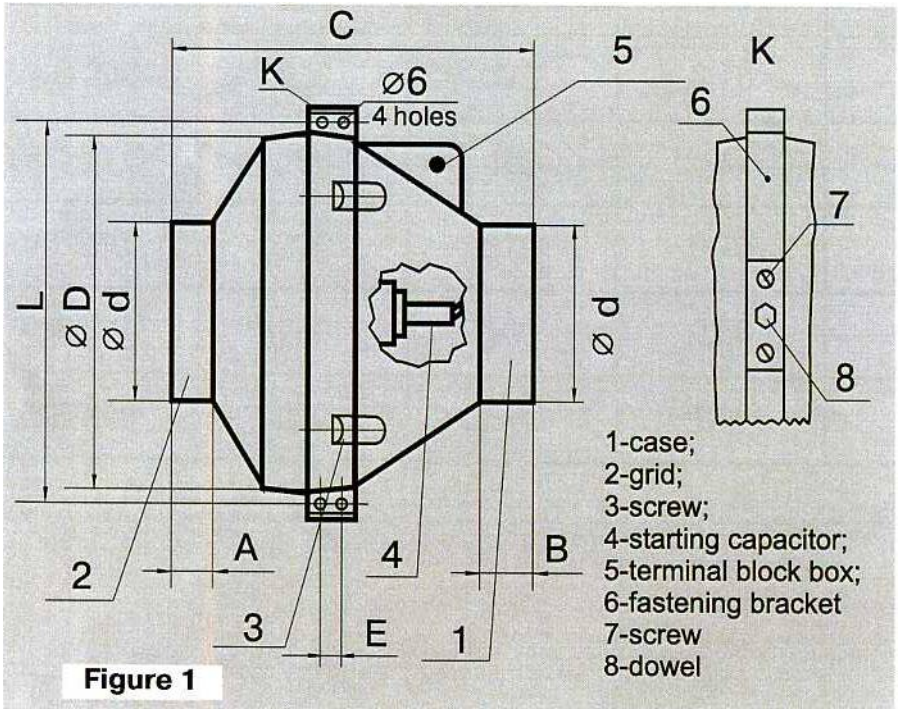


Figure 1

PERFORMANCE

Fan Type	Supply voltage (V) at 50 HZ	Power (W)	Consumption current (A)	Capacity (m^3/h)	R.P.M.	Noise level (dBa)	Ambient Temperature C^O	Protection
AV100B	230	80	0.34	250	2820	46	-25 +55	IPX4
AV125B	230	79	0.34	355	2800	46	-25 +55	IPX4
AV150B	230	80	0.35	460	2725	46	-25 +55	IPX4
AV200B	230	107	0.47	780	2660	48	-25 +55	IPX4
AV250B	230	173	0.76	1080	2090	50	-25 +50	IPX4
AV315B	230	200	0.88	1340	2655	50	-25 +50	IPX4

SAFETY REQUIREMENTS

The fan complies with the requirements according to the EU norms and directives.

In case if a fan with the level of protection that corresponds to the second distinctive number IPX4 is used in humid conditions, it is necessary to provide additional protection in order to prevent moisture access. Possible protection means:

1. If a fan is installed in a horizontal position, the duct length on both sides should be not less than 1m.

2. In any fan position it is necessary to install a cap on the suction branch tube.

Precautions must be taken to avoid the black-flow of gases into the room from the open flue of fans or other open-fire appliances.

NOTE: Installation and connection of the fan should be done by a qualified person in accordance with the IEE wiring regulations.

Prior to connecting the fan to power supply, it is necessary to make sure that there is no visible faults on the rotor, case, grid and that there are no foreign items in air flow part of the case, which may damage rotor's blades.

CAUTION: Do not use the fan in highly explosive environment.

PREPARATION OF DEVICE OPERATION

The fan consists of: -

Case 1 with installed electric motor with impeller; capacitor 4, installed inside of the case 1; grille 2, which is attached to the case using screw 3 (diameter of pipes of case and grille corresponds to diameter of installing duct); cover of terminal block 5 for connecting of the fan to single-phase circuit;

Connecting of the fan to single-phase circuit (figure 3) is through a switch, built-in to fixed wiring. Connection of fans to electric power supply must be performed only through a switch with actuation length not less than 3mm at all poles. The fan is installed vertically or horizontally. Direction of air-charging is to comply with direction of arrow on the fan case.

To mount the fan on the wall or ceiling, it is necessary to make the following adjustments. Screw out from each side of the case 1 of the fan dowel 8 and install brackets, ensuring alignment of holes in the brackets with screw heads 3.

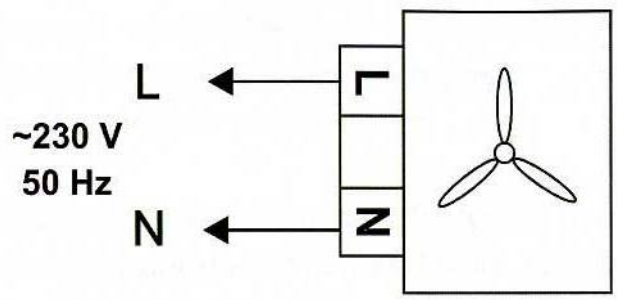
Attach brackets to the case of the fan with dowels 8. Perforate veiling (wall) for dowels according mounting holes of the support and mount the fan using screws.

Connect ducts of corresponding diameter to the fan and fix them using cable ties. For best performance smooth out flexible ducting to reduce the effects of system resistance and do not squash ducting at bends.

Connecting the fan having single-phase electric motor to an alternating current power line.

It is good practise to provide a 3 amp fused spur/isolator to isolate fan for maintenance or repair.

Figure 3



THE FAN IS COMPLETED WITH

The complete set includes:
- Fan ……. 1 unit;
- Galvanised steel brackets …….. 2 units;
- User's manual;
- Packaging

MAINTENANCE

Maintenance work may be done only after the fan has been disconnected from the power supply.

Service includes regular cleaning of the fan surface from dust and dirt after the fan has been disconnected from power supply. A soft dry brush or pressed air should be used to remove dust.

The blades of rotor should be thoroughly cleaned every 6 months.

In order to do it, release the screws 3 (fig 1) and detach the grille 2 from the case 1. Use detergent dissolved in water to clean the rotor blades. Avoid the liquid getting on the motor.

STORAGE RULES

The fan should be stored in manufacturer's packaging in ventilated room at air temperature room +50^{O}C to +40^{O}C and relative air humidity not exceeding 80% (at T=25^{O}C).

Presence of acid alkali and other addressive substances vapours in the air is not permitted.

WARRANTY:

Applicable to units installed and used in the United Kingdom

Airflow guarantees the Aventa Turbo for 2 years from date of purchase against faulty material or workmanship. The warranty can be upgraded to 3 years upon registering on our website, airflow.com

In the event of any defective parts being found, Airflow Developments Ltd reserve the right to repair or at our discretion replace without charge provided that the unit.

1. Has been installed and used in accordance with the fitting and wiring instructions supplied with each unit
2. Has not been connected to an unsuitable electrical supply
3. Has not been subjected to misuse, neglect or damage
4. Has not been modified or repaired by any person not authorised by Airflow Developments Ltd.
5. Has been installed in accordance with Building Regulations and IEE wiring regulations.

Airflow Developments shall not be liable for any loss, injury or other consequential damage, in the event of a failure of the equipment or arising from or in connection with the equipment excepting only that nothing in this condition shall be construed as to exclude or restrict liability for negligence.

This warranty does not in any way affect any statutory or other consumer rights.

AIRFLOW™

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Addendum – 10/2016

The Building Regulations 2010, Statutory Instrument Part 9, paragraph 42, imposes a requirement that testing and reporting of mechanical ventilation performance is conducted in accordance with an approved procedure.

Compliance with this requirement by an assessed and registered ‘Competent Person’ should follow a ‘Best Practice’ process and adopt air flow measurement, Method A – The Unconditional Method – using a suitable UKAS certified measuring instrument. Generically referred to as a ‘Zero Pressure Air Flow Meter’ or ‘Powered Flow Meter’.

Further information on this method is detailed in NHBC Building Regulations Guidance Note G272a 10/13 and BSRIA ‘A Guide to Measuring air flow rates’ document BG46/2015