



Dünyanın Havaasını Değıştiren Marka
For a Breath of Fresh Air!

USER'S MANUAL & CERTIFICATE OF WARRANTY

AORB



AC DIRECT DRIVE CENTRIFUGAL BLOWER

Products with BVN brand are manufactured in production facilities with
ISO 9001: 2008 Quality Management System certificate.



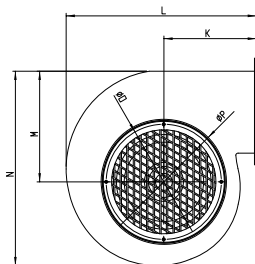
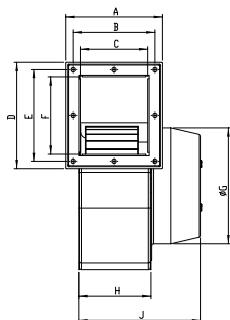
MANUFACTURER'S / IMPORTER'S	
NAME	BAHÇIVAN ELEKTRİK MOTOR SAN. TİC. LTD.ŞTİ.
ADDRESS	Ömerli Mahallesi Hadımköy-İstanbul Cad. No:147 34555 Arnavutköy/İSTANBUL
PHONE / FAX	0212 771 48 48 / 0212 771 48 42
COMPANY REPRESENTATIVE'S SIGNATURE/SEAL	
PRODUCT'S	
TYPE	FAN
BRAND	BVN
MODEL	AORB
LABEL AND SERIAL NO	
DELIVERY DATE&PLACE	
MAX.REPAIR PERIOD	20 WORK-DAY
WARRANTY PERIOD	2 YEARS
SELLER'S	
NAME	
ADDRESS	
PHONE / FAX	
INVOICE DATE&NUMBER	
DATE/SIGNATURE/SEAL	
MÜŞTERİNİN	
ADI SOYADI	
ADRESİ	
TELEFONU	

SAFETY WARNINGS

- These fans contain rotating parts and electrical connections. Therefore, pay attention to safety warnings during their assembly, maintenance and operation.
- Electrical connections and assembly must be made by authorized persons.
- Electrical connections of the fan should not be damaged when the ceiling or the wall is drilled or broken.
- The product must have an air duct of its own.
- During transport, operation and maintenance, hands should be protected with gloves against cuts.
- The fan should in no way be touched while operating.
- Proper cleaning should be done with periodic intervals; otherwise the product might be harmed.
- Keep the fan away from children and do not let unauthorized people to use it.
- Do not use do product at ambient temperature over 40 °C.
- Our company manufactures products that are harmful to human health, mercury, PCBs (poliklorürilübenil), does not contain asbestos materials.

TECHNICAL FEATURES

IP 44 / CL B

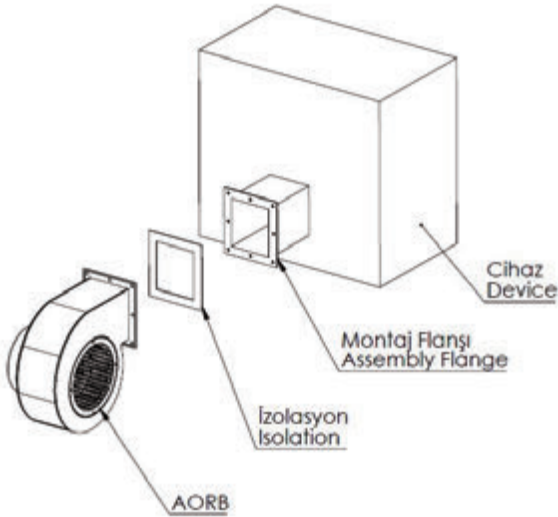


TYPE	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P
AORB	150	125	105	163	139	120	174	109	185	142	290	170	298	143	186

TYPE	VOLTAGE	FREQUENCY	POWER	CURRENT	CAPACITOR	SPEED	AIR FLOW	SOUND LEVEL
	V	Hz	W	A	μF	d/d	m ³ /h	dB(A)
AORB	230	50	605	2,8	8	2750	1200	70

Products supplied on the markings or accompanying other printed documents according to the standards of the declared value obtained in the laboratory values. These values may depending on operational and environmental conditions of the product.

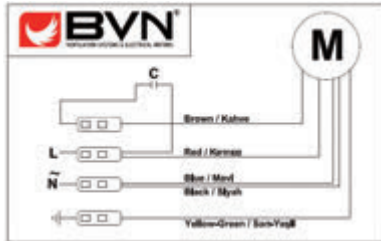
ASSEMBL



- 1 Safe for installation on the ceiling according to size and distance drillholes and insert the dowels.
- 2 As shown in item suspended secure manner.
- 3 Make sure you install according to the direction of air.
- 4 Figure of the products as seen in the mounting flange obtain air channels. Pull air through the product between these sealing foam tapes.
- 5 The powercord, make sure it is connected correctly by looking at the electrical diagram. Device mounted on an all-pole circuit breaker, connect the splitter.
- 6 Perform trial operation of the fan, check if there are any errors in the product and vibration.

CONNECTION

SINGLE-PHASE CONNECTION



- Products should be installed only by authorized persons.
- Installation of the product to be specified in the Project location to the wall or floor must be securely mounted. If mounted on the wall, it should be mounted with bracket or with clamps.
- Fan blades to be above 2,3 m from the floor must be installed.
- Fan can not be installed outside the window or wall.
- Open the gas pipe or the fuel-burning devices inside of the room to avoid there flux of gas is necessary to take pre-measures. It is recommended that gloves be worn in the assembly of products.
- The product must be connected to input and output channels.
- Electrical cords definitely turn off the power before connecting.
- When mounting brackets and mounts all the connections are made correctly to carry the weight of the product, make sure you have the strength.
- Even if the product off the main power supply is switched off when connecting equipments make sure that.
- Before mounting the electrical connection indicated on the product information (voltage, power, frequency, etc..) In the place of assembly are in keeping with that note.
- There is no obstruction on the air flow way.
- Intermittent safety ground terminal located on the terminal must be connected to earth certainly building.
- Motor thermal and overload relay make sure they are connected properly.
- If the thermal opens circuit during in any problems (while the product is not working) it must be reset from the system network and activated again.
- Product wiring, electrical connections must be as in the diagram.
- Contact separation in all poles along with a switch that must be connected to fixed wiring installations in accordance with the rules.

USAGE

The AORB centrifugal fan is perfect for use in industrial and commercial environments, mainly for local cooling applications, blowing in heating systems etc. Spray containment, fume control, inflatable products, low profile air handling units, air filtration, attenuated fan boxes, solarium equipment, conveyor cooling, electronic enclosure ventilation etc.

AORB fan's compact structure benefits space saving for various cooling and ventilation applications. Clean and dry air is extracted from the one side open inlet ring by forming it into the impeller properly, so useful static pressure can be converted from high kinetic energy in the airflow. With regard to the air movement and performance, AORB fan is high efficiency, low noise level and comparatively higher increase in static pressure with provided airflow.

Users Before using radial centrifugal fans are obliged to read carefully the operating and maintenance manual.

Expected life of the products is **10** years.

When using your product for the first time;

- Before connecting electric cables, you must not forget to cut the power supply. Be sure that electrical connections of the product are established correctly and safely.
- Be sure that safety equipment is connected correctly.
- Properly establish earthing connections.
- Be sure that the cable and electric connection box are closed correctly and do not admit water leakage.
- Air exit direction should be in the direction indicated with the label on the body. There shall not be any obstacles in the air flow route.
- The wings should rotate in the correct direction.
- While the product is operating, there shall not be any vibration or internal rubbing or hitting voice due to the rotation of the fan or the suction fan.
- Power supply, current and frequency values shall comply with the product label.
- If any electricity warning device turns on, electric connection should immediately be cut from the main power supply. Before starting the product, all the installation should be controlled again carefully.
- If any problem occurs, please consult authorized persons.

In case of any defect after you have started using the product continuously, the type of defect should be determined. In order to remove the defect, the **technical service must be contacted. You must not try to fix the problem yourself.**

DEFECTS AND HOW TO FIX THEM

ABNORMAL SITUATION	POSSIBLE CAUSE	HOW TO FIX
TOO MUCH SOUND (NOISE)	ROTOR IMBALANCE	CHANGE THE ROTOR
THE DEVICE IS NOT WORKING	MOTOR IS DAMAGED	CHANGE THE MOTOR
	CONDENSATOR IS NOT WORKING	CHANGE THE CONDENSATOR
	FAULTY SPEED ADJUSTMENT CONNECTION	CHECK THE INSTALLATION (ASSEMBLY)
THE DEVICE IS ROTATING SLOWLY	FAULTY CONNECTION	CHECK THE ELECTRICAL CONNECTION

CLEANING, MAINTENANCE and TRANSPORT

In order to protect your product from being damage during transport;

- The product has been packaged according to normal transport conditions. In order to avoid possible damage, it should always be carried in its original package.
- The product shall be kept in its own package in a vibration-free, dust-free environment away from abrasive or chemical material until it is delivered to its place of assembly. Do not accept the products which are not in their original package or which were opened before being delivered to you.
- The products should be stocked into the vehicle in a way to stay motionless in case of any turn over or fall down.
- While heavy products are being carried, use appropriate lifters to protect products or the people carrying the products.
- All necessary measures should be taken in order to prevent damages arising from sudden and careless lifting and putting down.

USER'S MANUAL & CERTIFICATE OF WARRANTY

- The products should be carried one by one carefully. They shall not be thrown or carried carelessly from hand to hand.

After taking the product out of its package;

- The delivered product should be checked.
- The product must be checked for damage during transport. If there is any lost or damaged part, it should immediately be informed to the transporter or our firm verbally or by writing.
- Do not hold the product on its connection box or electric cables. Abstain from applications which will damage the wings or the protective cage while carrying.

Periodic cleaning and maintenance of the product;

- Before cleaning or maintenance, even if the product is turned off, be sure that electric connection has been cut from the main power supply.
- All electrical equipment should be regularly controlled, connections should be checked and damaged or worn-out cables and equipment should be replaced.
- Periodic maintenance should be carried out at least once every six months or more frequently, depending on its frequency of use. Maintenance and cleaning of the product should be carried out by qualified staff.
- Check the product regularly. In order to prevent dirt or accumulations in the wing, motor or grill, carry out the maintenance according to the operating conditions of the product. Otherwise, the expected life of your product can be substantially shortened or serious damage can occur.
- While cleaning the product, pay attention to protecting the balance on the wing and the turbine.
- Bolts which might become loose during maintenance should be checked.
- Inappropriate parts should be immediately replaced.
- The product should not be cleaned with inflammable or combustible cleaners; it should be cleaned with a wet cloth.
- The product should in no way be exposed to water or pressure water.

WARRANTY and SERVICE

Dear customer,

We believe that providing good service is as important as providing good products for you. You can contact our Sales Representatives by calling us or obtain the most suitable service for you by contacting our Authorized Dealers.

We recommend you to follow the advices below.

1. When you buy a product, have your Authorized Dealer approve the Warranty Deed
2. Use your product according to the user's manual.

The warranty provided by BVN does not cover the damages arising out of using the product under conditions other than its normal conditions of use. The following conditions are also not included in the warranty:

1. Damages and defects arising out of faulty usage,
2. Damages and defects which occur while loading, unloading or carrying the product after it has been delivered,
3. Damages and defects arising due to low or high voltage, faulty electrical installation and using the product at a different voltage than the one written on its label,
4. Damages and defects due to fire, earthquake, lightning strike, etc.
5. Damages occurring due to using the product under conditions not conforming to the issues stated in the user's manual.

The above-mentioned damages are fixed on payment.

Assembly and transport of the product is not included in the product price. The responsibility of approving the warranty deed and submitting it to the customer belongs to the seller, dealer, agency or representative from which the customer has purchased the product.

Since the invoice will be taken as reference if a misunderstanding occurs about the warranty period, the user must keep the invoice and a copy of it together with the Warranty Deed.

If the warranty deed is altered, the original serial number on the product is removed or altered; the warranty deed will become invalid.

WARRANTY TERMS AND CONDITIONS

- 1 The warranty period is 2(TWO) YEARS from the date of delivery.
- 2 The product including all its components is under the warranty of our company.
- 3 In case of defects within the warranty period ,the period spent in repairing is added to the warranty period.The repairing period is maximum 20 days. This period starts from the date of delivery of the product to the services centre or in case of absence of service centre to the seller, the agency the representative ,the importer or the manufacturer of the product respectively.In case the defect is not repaired within 10 work-days ,the importer or the manufacturer is entitled to supply another product with similar features until the repair is completed.The warranty period of the replaced product is limited with the warranty period of the product which is purchased.
- 4 In case the product has material ,workmanship and manufacturing defects during warranty period, the product will be repaired free of charge and expenses of any sort including labor, the value of the parts replaced or any our charges.
- 5 The consumer may request for replacement of product free of charge, refund of payment or price reductions in the rate of defects
 - In case the product permanently dysfunctions due to repeating of the same defect for more than twice or more than twice or more than four different times within the warranty period
 - In case the maximum period for repairing is exceeded
 - In case it is determined by a written report that the defect cannot be removed by the seller ,agency, representative, importer or manufacturer of the product respectively in case of absence of service centres.
- 6 The present warranty does not cover damages resulting from use of product against the instructions in the manual.
- 7 General Administration of Protection of Consumer Rights and Competition in the Ministry of Industry and Commerce may be applied for problems regarding the warranty certificate.
- 8 In accordance with issues of consumer complaints and objections on the application ,consumers can appeal the consumer courts and arbitral committee.
- 9 In case of the goods are found to be defective when consumers
 - a. Sold by declaring that it is ready to give back there turn from the contract,
 - b. Sold goods are held defective ratioid is count that request according to the sales price,
 - c. Unless require an excessive charges including all costs borne by the seller that request a free repair of the goods which has been sold.
 - d. If possible, ask for the replacement of free from defects in stead of goods sold

Consumer can use one of the elective rights. Seller's preferred consumer is obliged to ful fill this demand.