

Product data sheet

Specifications

Product Name: Axial fan with shaded pole motor

Product Model: F2E-150S/B-230

Motor Code: M2E07202-AB

Order Number:2018.011/013



Naming rules

1.1 Product code description

Example:

F2E	-	150	B	-	230
1		2	3		4

1-Company code or fan outlet method

2-External dimensions

3-Bearing type (S: sleeve bearing B: ball bearing)

4-Input voltage (1:115V, 2:230V, 3:380V)

1.2 Motor code description

Example:

M	2	E	072	-	02	A	-	B
1	2	3	4		5	6		7

1-Motor

2-Pole number (2:2 poles, 4:4 poles, 6:6 poles, 8:8 poles);

3-Input voltage (S: 115V, E: 230V, D: 380V);

4-Motor outer diameter;

5-Motor design serial number;

6-AC power;

7-Insulation level (B: Grade B, F: Grade F)

Production standard and safety regulations

1	The product satisfy requirements	☒ GB12350 《Safety requirements of small power motors》
		☐ GB/T13275 《General technical requirements for general centrifugal fan》
		☒ EN60335-1 《Household and similar electrical appliances-safety》
		☐ EN62368-1 《Household and similar electrical appliances-safety》
		☒ UL507 electric fan standard
2	Management system certification	☒ Quality Management System ISO9001:2015 ☒ Environmental Management System ISO14001:2015 ☐ Occupational Health and Safety Management System ISO 45001:2008

3	Certificate	☒ CCC Self-declaration Self-declaration No:2024000401000296 According to the standard: GB/T12350-2022
		☒ CE
		☒ UL/CUL/Certificate No: E324860-20240522
		☐ TUV /Certificate No:
4	Vibration of the fan	☒ Fan effective value of vibration velocity according JB/T8689 standard

General Specification

ITEMS		Specification/Condition		
1	Outline. Dimension	See enclosed drawing		
2	Type of motor	Axial flow fan with shaded pole motor		
3	No. of Poles	2poles		
4	Starting voltage	90V		
5	Voltage range	90V-245V		
6	Rated .voltage/Frequency	230V AC	50HZ	60HZ
7	Rated current	Testing under the rated voltage	0.29A±10%	0.27A±10%
8	Power consumption		43W±10%	40W±10%
9	Rated speed		2600RPM±10%	2620RPM±10%
10	Max airflow		375±5% ³ m	370±5% ³ m
11	Max static pressure		/	/
12	No.of fan blades	7P		
13	Rotating direction	Observe clockwise from the fan blade side.		
14	Air outlet direction	Straight in and straight out		
15	Operating temperature	The standard temperature rise is less than or equal to 60K. Test the temperature rise at 25 ° C in the laboratory with 1.1 times the rated voltage (50Hz)		
16	Max noise	58dBa±5%		
17	Life time	Fans endurance test: can continuous work within 30000hours (under nominal voltage, environmental temperature is 25℃、humidity<70%RH、fans full-speed operation。		
18	Failure warning (selectable)	Alarm: ☐ Closed ☐ Opened Passive touch spot Touch spot loading: 8A/AC125V 6A/AC250V 8A/DC12V 6A/DC24V		
19	Signal feedback (selectable) FG signal	☐ FG signal		
20	Description of other functions	/		
21	Weight	0.875KG		

22	Place of production	Shanghai, China
23	Air capacity and air pressure curve	

The graph illustrates the relationship between air capacity (Airflow in m³/h) and air pressure (PRESSURE in Pa) for two different frequencies: 50Hz and 60Hz. The x-axis represents PRESSURE / Pa, ranging from 0 to 100. The y-axis represents Airflow m³/h, ranging from 0 to 400. Both curves show a linear decrease in airflow as pressure increases, starting from approximately 380 m³/h at 0 Pa and reaching 0 m³/h at 100 Pa. The 50Hz curve (blue) and the 60Hz curve (magenta) are nearly identical, with the 60Hz curve being slightly higher at lower pressures.

PRESSURE / Pa	50Hz Airflow m³/h	60Hz Airflow m³/h
0	380	380
20	300	310
40	220	230
60	140	150
80	60	70
100	0	0

Main Materials/parts Specification

Materials/Parts		Specification
1	Housing	Aluminum ADC12 SDC12
2	Blade	PBT+GF
3	Bearing type	Ball Bearing Bearing spec: NMB 608
4	Enameled wire	QA-1/155 Enamel Wire
5	Lead way	Terminal block
	Length of lead	170±20mm (Test line, not included by default)
	Wire specification	UL3266 20WG 125℃
6	Flame retardant rating	V-0: The fire burn out within 30seconds after two times of 10seconds burning testing for samples. Not Allow the objects drop after burning.
7	Lead wire pipe	Heat-shrink tube
8	Connector	3-position screw terminals
9	Terminal shell	PA66+GF-FR
10	Capacitance	/
11	(Centrifugal fan project) Inlet cones	☐ Yes ☐ No

Electrical Specifically

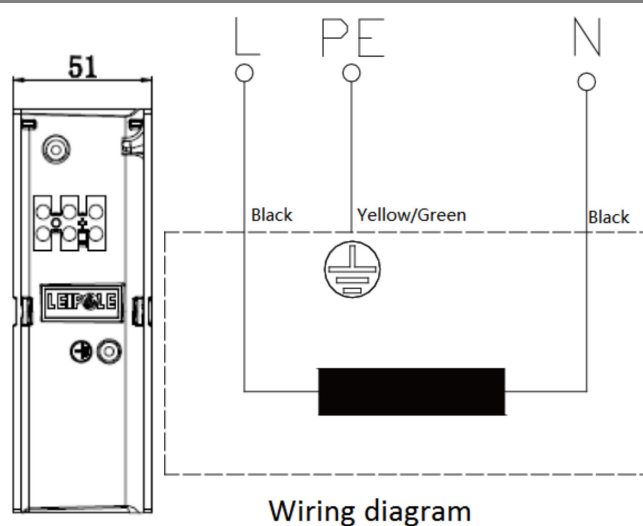
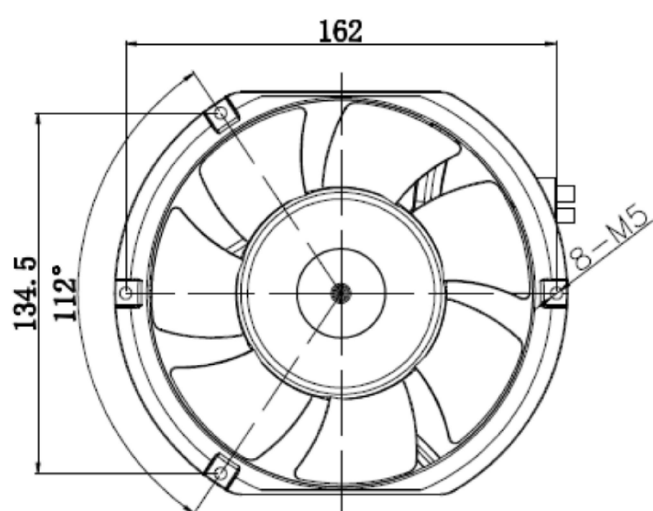
1	Insulation resistance	100M Ω /between unshackled wire and frame at 500VDC/1min
2	Dielectric strength	Between wire and frame 1800VAc 5mA 1S
3	Ingress protection	IP34

4	Motor protection type	Impedance protection
5	Thermal protection reset type	/
6	Operating temperature of protector	/

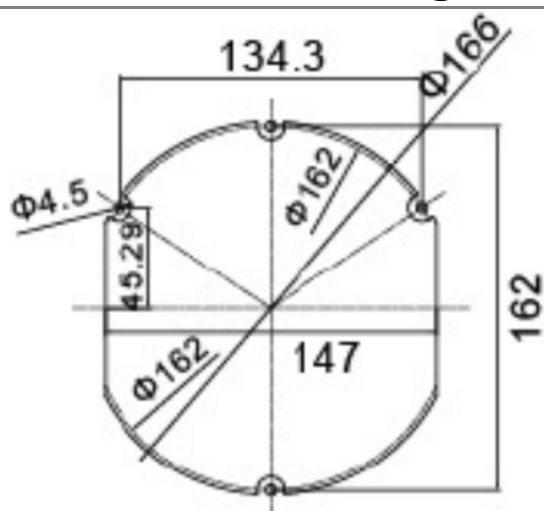
Environmental Specification

1	Working temperature range	Temperature: -30℃~+60℃
2	Working humidity range	Humidity: 0-70%RH
3	Keeping temperature range	Temperature: -40℃~+70℃
4	Keeping humidity range	Humidity: 0-85%RH
5	Insulation shock	IEC61858 Class B
6	Packing vibration test	After packaging, conduct a 1.1G load vibration test in XYZ directions for 30 minutes. No serious damage
7	Packing shock proof test	After bundling, the height is 60 cm. A drop test is performed from a height of 1 corner and 3 edges onto 6 sides, resulting in no significant damage.

Shape and installation drawings



Cut-out size drawing



Notes

1. Our products should be used within the specification appointed condition, so we will not guarantee this product quality if your application exceeds the limitations outlined in this specification.

2. Unless we are notified in advance of the required parameters, the shipped products shall be consistent with this specification sheet, and the parameters not specified in this specification sheet shall be the same as the samples finally recognized by your company

3. Improper mounting may cause harsh resonance, vibration and noise. Please mount this fan motor properly without applying excessive or uneven force at the mounting points to avoid vibration and noise. Dampers at the mounting points can reduce noise and vibrations greatly.

4. Please use fan guards to avoid personal accidental injuries.

5. Unless this fan motor is specified for use in abnormal environments designated by IP rating level, this fan is designed to operate under normal environmental conditions.

6. Please avoid operating M-FAN's products in poisonous material (organic, cyanogens, formalin, phenol, etc.) or corrosive gas environment (H_2S , SO_2 , NO_2 , etc.)

7. Please use filters to clean the air-intake in very dusty air environments for extended fan life.

Under the condition of ensuring that the product performance and life remain unchanged or even improved. Unless otherwise agreed in advance, we reserve the right to use parts from multiple sources with the same specifications, and changes in raw materials and structure will not be notified in advance.

9. Always ensure that fans are stored according to the storage temperatures specified. Do not store in a high humidity environment. If the fans are stored for more than 6 months, we recommend functional testing before using.

10. Make sure to turn off the power before connection or disconnecting the connectors. This may cause short of electronic parts.
