



**SPECIFICATION FOR APPROVAL**

**CUSTOMER** :  
**DESCRIPTION** : DC BRUSHLESS FAN  
**DIMENSIONS** : 60X60X38 mm  
**M O D E L** : PMD1206PMB1-A  
**P/N** : (2)  
**APPROVED NO** :  
**APPROVED BY** :  
(AUTHORIZED)

DAWN.	<i>Fanny 6/19</i>	CHKD.	<i>Jessica Kiddy</i>	APPD.	<i>Winner</i>	SPEC.NO	N600029
						ISSUE DATE	06.19.2003
						EDITION	0
						REVISE DATE	
						E.SPEC	EN60010

建準電機工業股份有限公司  
**SUNONWEALTH ELECTRIC MACHINE INDUSTRY CO., LTD.**  
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**KAOHSIUNG, TAIWAN, R. O. C.** FAX:886-7-7163086~89

**DC BRUSHLESS FAN**  
**MODEL : PMD1206PMB1-A**  
**P/N : (2)**

**CHARACTERISTICS**

- 1. Motor Design** : DC brushless 4 poles motor design.
  
- 2. Insulation Resistance** : More than 10M ohm between internal stator and lead wire(+) measured by DC 500V.
  
- 3. Dielectric Strength** : Applied AC 500V for one minute or AC 600V for 2 seconds between housing and lead wire(+)
  
- 4. Noise Level** : Measured in a semi-anechoic chamber with background noise level below 15 dB(A). The fan is running in free air with microphone at a distance of one meter from the fan intake.
  
- 5. Input power, Current & Speed** : Measured after continuous 10 minutes operation at rated voltage in clean air at ambient temperature of 25 degrees C.
  
- 6. Tolerances** : ±15% on rated power and current.
  
- 7. Air Performance** : Measured by a double chamber. The value are recorded when the fan speed is stabilized at rated voltage.

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**SPECIFICATIONS**

**MODEL: PMD1206PMB1-A**

**P/N : (2)**

- 1-1. Rated Voltage : 12 VDC**
- 1-2. Operating Voltage Range : 6~13.8 VDC**
- 1-3. Starting Voltage : 5 VDC (25°C POWER ON/OFF)**
- 1-4. Rated Speed : 8000 RPM ± 10%**
- 1-5. Air Delivery : 56.5 CFM**
- 1-6. Static Pressure : 0.92 Inch-H<sub>2</sub>O**
- 1-7. Rated Current : 0.88 AMP**
- 1-8. Rated Power : 10.6 WATTS**
- 1-9. Noise Level : 56 dB(A)**
- 1-10. Direction of Rotation : Counter-clockwise viewed front fan blade**
- 1-11. Operating Temperature : -10 to +70 Deg.C**
- 1-12. Storage Temperature : -40 to +70 Deg.C**
- 1-13. Bearing System : Precise ball bearing system**
- 1-14. Weight : 90 g**
- 1-15. Vibration : Vibration of acceleration 1.5G and Frequency 5~50~5Hz is applied in the 3 directions(X,Y,Z) for 30 minutes, each Direction at the cycle of 1 minute.**
- 1-16. Locked Rotor Protection : Automatic Restart Capability**

Note: In the case that the fan is locked by force while the electricity is on, coil temperature rise will be prevented by intermittently turning off the motor operating electricity. The fan will automatically restart when the locked rotor condition is released.

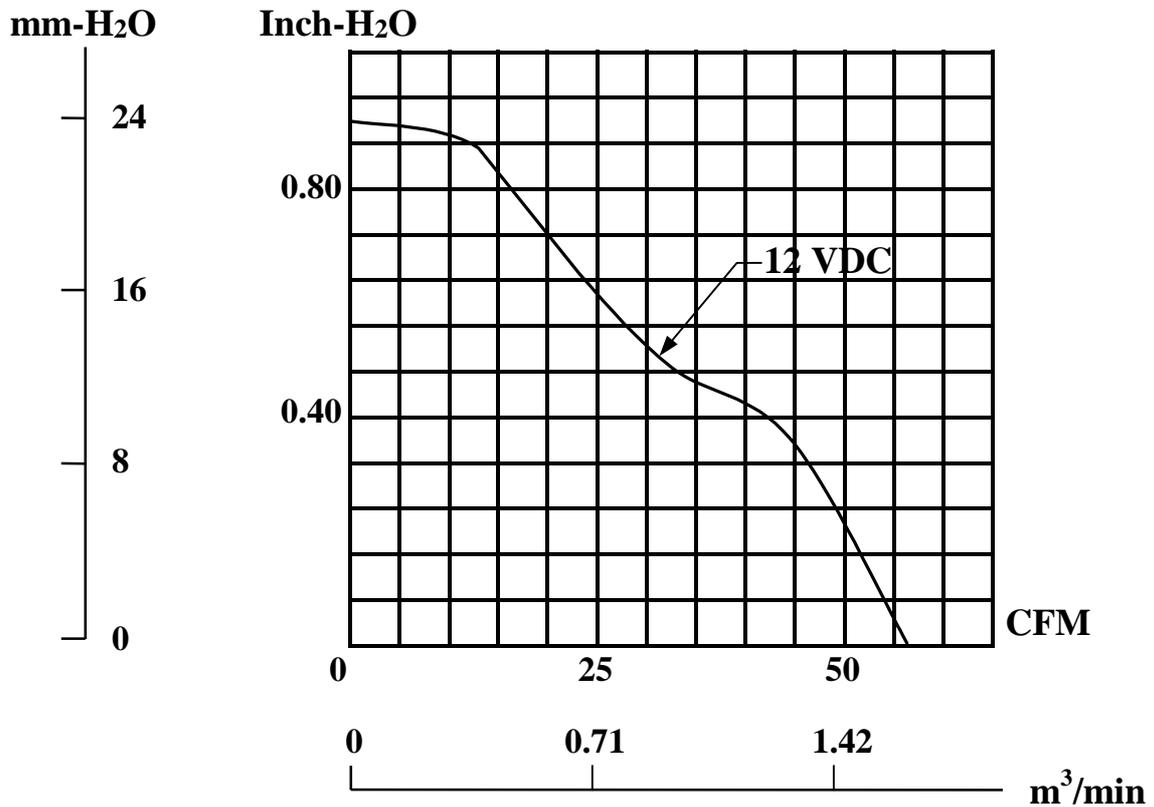
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**MODEL : PMD1206PMB1-A**

**P/N : (2)**

**PERFORMANCE CURVES**

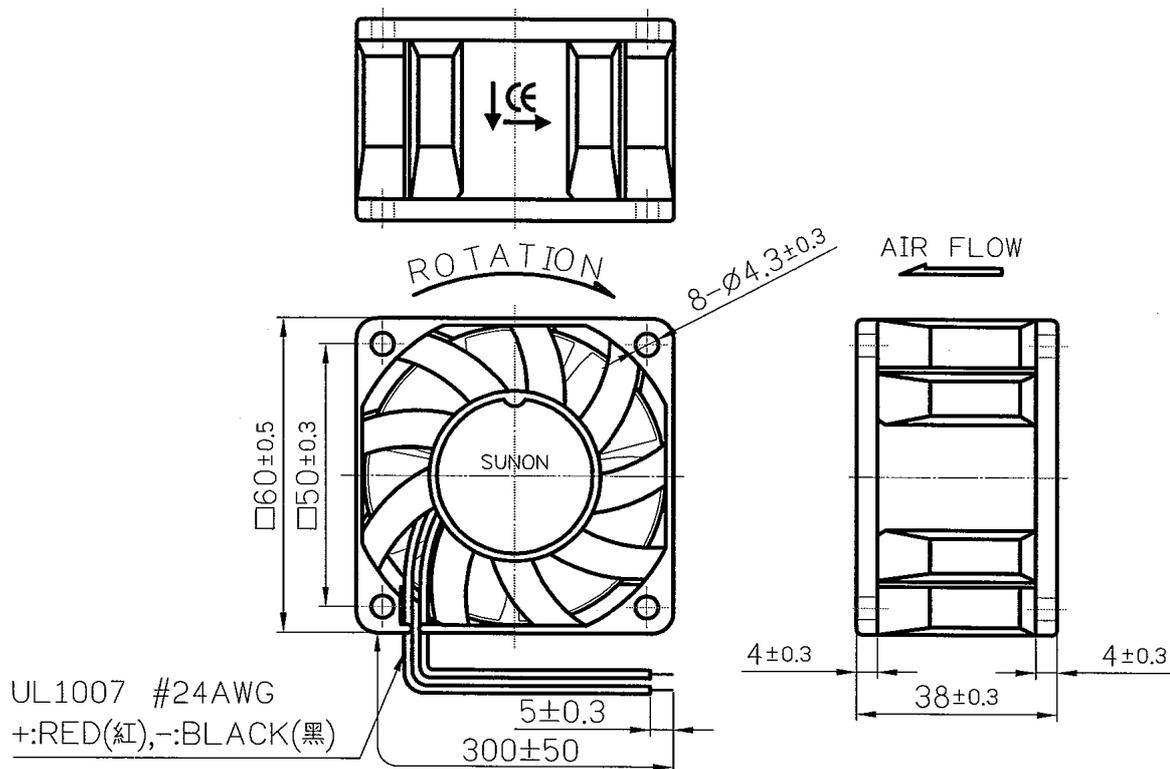
**STATIC  
PRESSURE**



**MATERIAL**

- 2-1. Frame : Thermoplastic PBT of UL 94V-0
- 2-2. Impeller : Thermoplastic PBT of UL 94V-0
- 2-3. Bobbin : Thermoplastic PBT of UL 94V-0
- 2-4. Lead Wire : UL1007,24AWG,+RED;-BLACK

**DIMENSIONS**



1. Air Flow Direction: Label side.
2. The Best Mounting Direction: In any orientation.

UNITS : mm

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## Notes

### I . Safety

1. We will not guarantee the products if your application exceeds the limitation mentioned in this specification.
2. There is no thermo-protector installed in this product, such as thermo-fuse, or current-fuse or thermo-protector. There may be smoking, ignition or electric shock by insulation degradation in cases of motor lock, motor lead short circuit, over load, over voltage or other failure. Please add the protection circuit on your machine.
3. Due to the diode of reverse-connected prevention of VDC ( + ) and GND ( - ) is not installed in this product. Therefore, if VDC ( + ) and GND ( - ) are connected reversely, it may get smoking and destruction, moreover there is danger of the ignition. Even though it does not find the breakdown while reverse connecting, please still do not connected it reversely, because parts may be deteriorate. We recommend to install the protection device for the motor on your product side when there is a possibility to reverse-connect.
4. Please check the safety of your product carefully when installing our products into your machine
  - i) To make sure the safety of the motor in compliance with your application standard.
  - ii) If problem happens, please inform us before your machines are shipped into the market.
5. Please carefully handle and install this product. Hit or drop may cause damage.
6. Please do not damage this product including coil and lead wires while installing or wiring. There may be smoking or fire.

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## Notes

### II . Specification modification

1. We are able to counsel about the cooling system design and fan installation.
2. Any change to the parameters specified in this document will be determined by mutual agreement on both parties.
3. Any parameters in this specification will not be modified without your approval. Other parameters which are not mentioned in this specification will be the same as the final sample which has been approved by your company.
4. If you think there is a essential to discuss a certain parameter in this specification which was not be considered, please inform us in advance. Otherwise we shall deem that there is no problems associate with this specification, and start shipment in accordance with this specification.
5. Any characteristics which have been modified during or after mutual discussion by both parties, or in any other occasions should be incorporated in this specification, and we shall take them to be our final guaranteed parameters.
6. Please inform us in advance if you are going to modify your machine or operate our products onto other application, because we will need to do a re-investigation .

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## Notes

### III . Others

1. When build in your model, please check throughly on the variation of this product in association to the matching of performance, EMC, temperature rise, setting, life, and the quality level by dropping and shock testing, etc. If there are any problems or accidents in connection with this product, it should be discussed and examined mutually.
2. Fan holders or bearings might get damaged if you touch the fan with fingers or other objects. Please handle this product cautiously.
3. Please pay attentions during handling this product, since static electricity might damage the internal circuit parts.
4. Please avoid operating our product in poisonous material (such as organic silicon, cyanogens, formalin, phenol, etc.) or corrosion gas environments.(as H<sub>2</sub>S, SO<sub>2</sub>, NO<sub>2</sub>, Cl<sub>2</sub>, etc.) Please check carefully if there is any above substances.
5. We can not take any warranty for performance safety regarding accident caused by dust, water, droplets, dew, bugs, etc. Please ensure well in advance.
6. Please advice us in advance if you require documents for export.
7. Please install this product precisely, as unfit mounting may cause harsh resonance, vibration and noise.
8. When it comes to test, safety is always the top priority. Please furnish some guard accessories to prevent personnel from getting injury.
9. Unless otherwise notice, all tests are conducted at 25°C ambient temperature and 65% relative humidity.
10. Always ensure that fans are stored according to the storage temperatures specified. Do not store in an environment with a high humidity. If the fans were stored for longer than 6 months, it is highly recommended to apply functional testing before shipping.
11. In order to satisfy the mass production requirements, it is necessary to have more than two suppliers. Therefore, parts with the equivalent specification but different source can be accepted and used after being approved by SUNON.

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