

SPECIFICATION FOR APPROVAL

CUSTOMER :

DESCRIPTION: DC BRUSHLESS FAN

DIMENSIONS : 25X25X10 mm

MODEL: GM0502PFV1-8

P/N : M

APPROVED NO :

APPROVED BY:

 $({\bf AUTHORZIED})$

DAWN.						SPEC.NO	M250040
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						REVISE DATE	
					E.SPEC	EM25014	

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: GM0502PFV1-8

P/N : M

CHARACTERISTICS

1. Motor Design : Patented single-coil DC brushless 8 poles motor

design.

2. Insulation Resistance : More than 500M 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 30 minutes

operation at rated voltage in clean air

at ambient temperature of 25 degrees C.

6. Tolerances : ±15% on rated power and current.

7. Motor Protection : Locked rotor protected.

8. 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

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1-1. Rated Voltage : 5 VDC

1-2. Operating Voltage Range : 3-6 VDC

1-3. Starting Voltage : 3 VDC

1-4. Speed (Reference Value) : 13000 RPM

1-5. Air Delivery : 3.5 CFM

1-6. Static Pressure : 0.25 Inch-H₂O

1-7. Rated Current : 0.12 AMP

1-8. Rated Power : 0.6 WATTS

1-9. Noise Level : 23 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 : Vapo bearing system

1-14. Weight : 7.2g

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.

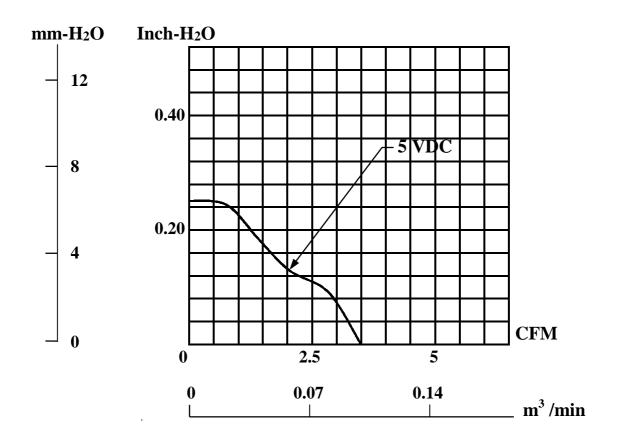
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PERFORMANCE CURVES

STATIC PRESSURE



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MATERIAL

2-1. Frame Thermoplastic PBT of UL 94V-0

2-2. Impeller Thermoplastic PBT of UL 94V-0

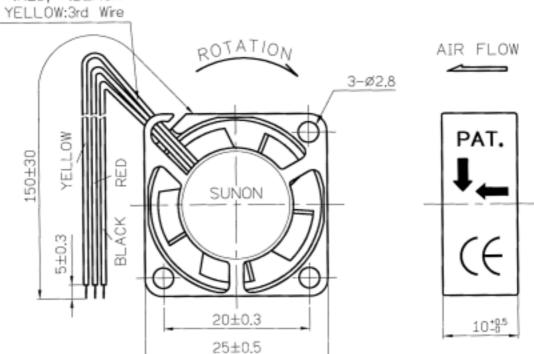
Thermoplastic PBT of UL 94V-0 2-3. Bobbin

2-4. Lead Wire UL3265,28AWG,+RED;-BLACK

YELLOW:3rd Wire

DIMENSIONS

UL3265 #28AWG +:RED, -:BLACK

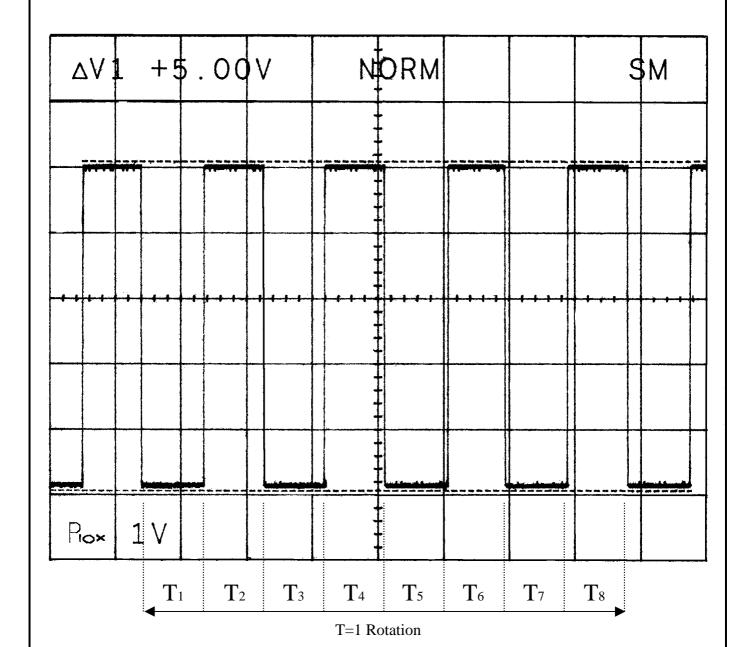


1.Air Flow Direction: Label side.

2. The Best Mounting Direction: In any orientation.

UNITS: mm

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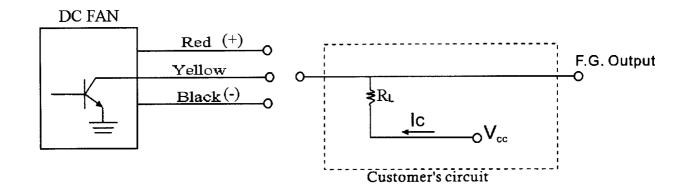
 $T=T1+T2+T3+T4+T5+T6+T7+T8=(1\ Rotation)$ $T1=T2=T3=T4=T5=T6=T7=T8=\ \frac{60}{8(rpm)}$

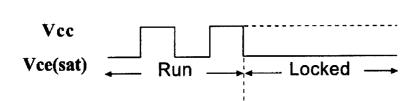
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FAN 3rd WIRE SIGNAL

Fan with switching driving circuit designed for rpm measurement: These fan motors have three lead wires:(+:Red,-:Black,output signal for 3rd wire:Yellow)

- M Type ◆Low voltage start-up
 - ◆3rd wire square wave signal was amplified by a transistor (open collector type)





Vcc=+ 7.5 V max Ic =10mA max Vce(sat)=0.5V max $Ic = \frac{Vcc-Vce(sat)}{R_L} \leqslant 10mA$

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Notes

- 1. SUNON will not guarantee the products if the application of our products is exceeded the limitation which is specified on this specification.
- 2. In case of change of the specification specified on this document, a written notice is requested in advance.
- 3. Please do not touch the impeller with pressure and never bring the fan with lead wire. The bearings and lead wire may be damaged.
- 4. No guarantee on the products against the safety problem or failure caused by powder dust, drop of water or insect.
- 5. If there is any data or related documentation different from this data sheet, this data sheet is the principal reference.
- 6. For the purpose of MIS, please indicate SPEC No. on every order.
- 7. In case of the fan has no polarity protection function, wires with same color (electrode) must be connected together during the assembly. (i.e. red + red, black + black) or the fan will be damaged immediately.
- 8. Please do not use the fan in the environment of corrosive gas or liquid or any detrimental gas.
- 9. Please do not store the fan in the environment of high / low temperature, high humidity or any detrimental gas. Please store the fan within 6 months, every 6 months, there shall be a linkage of electric current to the fan, even though the fan is stored in room temperature.
- 10. While the fan is in operation, please do not lock the fan intentionally for a long period of time, since the continuous stoppage will result in over-heat and damage of the fan.
- 11.During the installation of the fan, please pay substantial attention to possible noise cause by resonance vibration and vibration.
- 12. During the testing of the fan, please be sure to use finger guard to insure safety.
- 13.Unless otherwise specified, if there is any doubt in the judgement, the temperature and relative humidity range of environment will be take in according to the standard test condition as 25°C and 65%.

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