

DC Brushless Fan



RoHS
Compliant

Specifications:

Rated Voltage	: 3V DC
Operating Voltage Range	: 2V DC to 3.5V DC
Starting Voltage	: 2V DC (25°C Power ON/OFF)
Rated Speed	: 14,500 RPM \pm 30%
Air Delivery	: 8.75 L/min
Static Pressure	: 20.36 Pa
Rated Current	: 36mA
Rated Power	: 0.1 Watts
Noise Level	: 19.3dB(A) @ 1M 30dB(A) @ 0.3M
Direction of Rotation	: Counter-clockwise viewed from front of fan blade
Operating Temperature	: -10°C to +70°C
Storage Temperature	: -40°C to +70°C
Bearing System	: Vapo bearing system
Size	: 15mm (H) \times 15mm (W) \times 3mm (D)
Weight	: 1.17g
Protection	: Automatic Restart Capability

Note: In a situation where the fan is locked by an external force while the electricity is on, an increase in coil temperature will be prevented by temporarily turning off the electrical power to the motor. The fan will automatically restart when the locked rotor condition is released.

Polarity Protection

Characteristics:

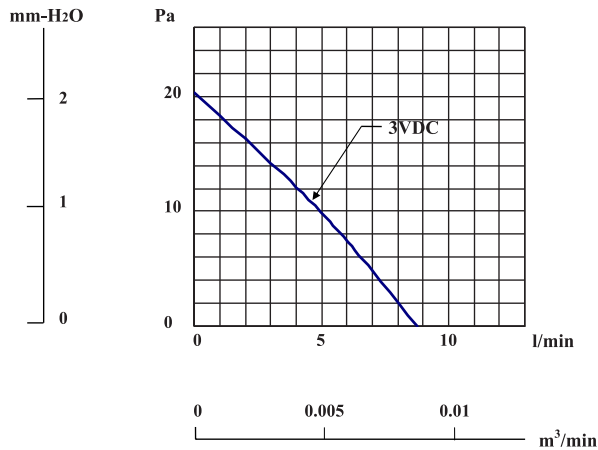
Motor Design	: Single phase, 6-poles Brushless DC motor
Insulation Resistance	: More than 20M Ω between internal stator and lead wire(+) measured at DC 100V
Dielectric Strength	: Applied AC 500V for one minute or AC 600V for 2 seconds between housing and lead wire(+)
Noise Level	: Measured in a semi-anechoic chamber with background noise level below 15dB(A). The fan is running in free air with the microphone at a distance of one meter from the fan intake.
Input Power, Current & Speed	: Measured after continuous 10 minute operation at rated voltage in clean air, and at ambient temperature of 25°C
Tolerance	: +20%/-30% on rated power and current
Air Performance	: Measured by a double chamber. The values are recorded when the fan speed has stabilized at rated voltage

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Performance Curves

Static Pressure

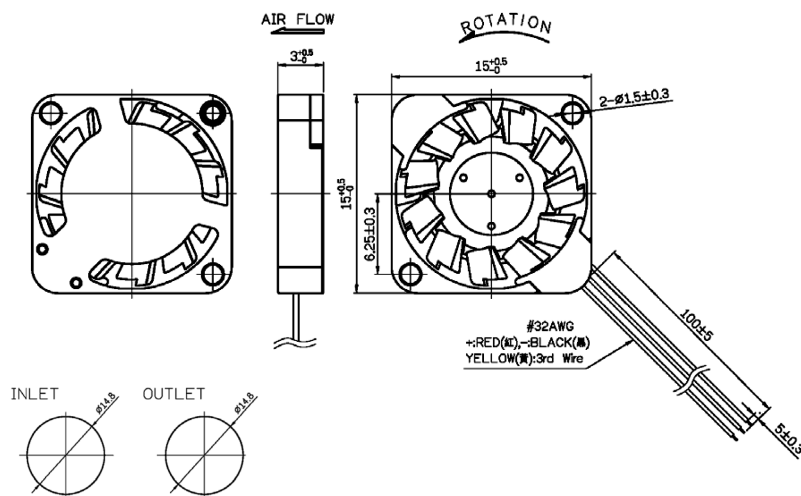


Material

- Frame : Thermoplastic LCP
- Impeller : Thermoplastic LCP
- Lead Wire : 32 AWG, +Red, -Black
32 AWG, Yellow : 3rd Wire

Screw Type (Pan Head)	Torque	Screw Spec.	
		Size	Standard
Machine screw	0.3 to 0.5 Kgf-cm	M1.4	JISB1111-1974

Dimensions

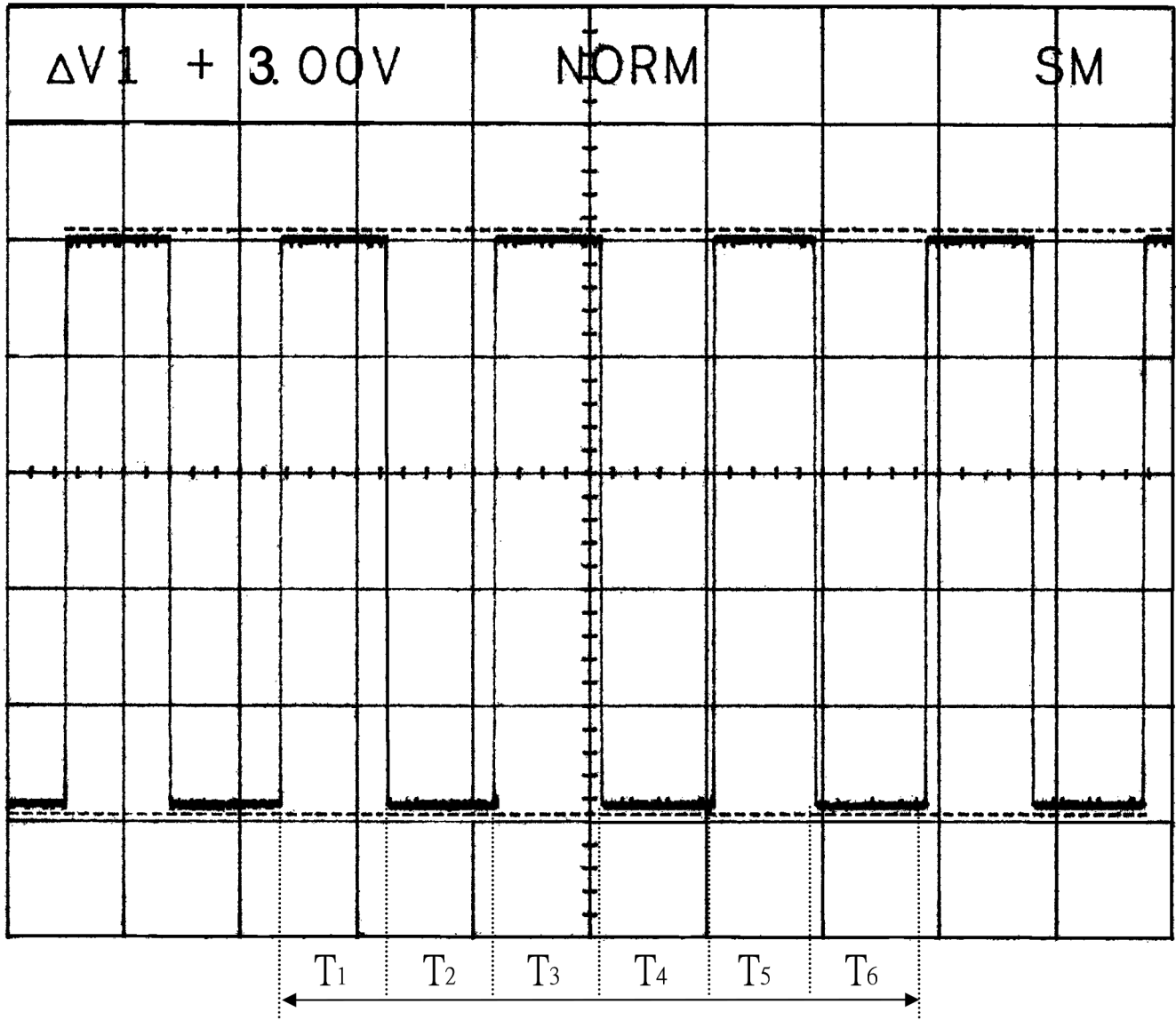


Best Mounting Direction: Any orientation.

Dimensions : Millimetres

www.element14.com
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T=1 Rotation

$$T = T_1 + T_2 + T_3 + T_4 + T_5 + T_6 = (1 \text{ Rotation})$$

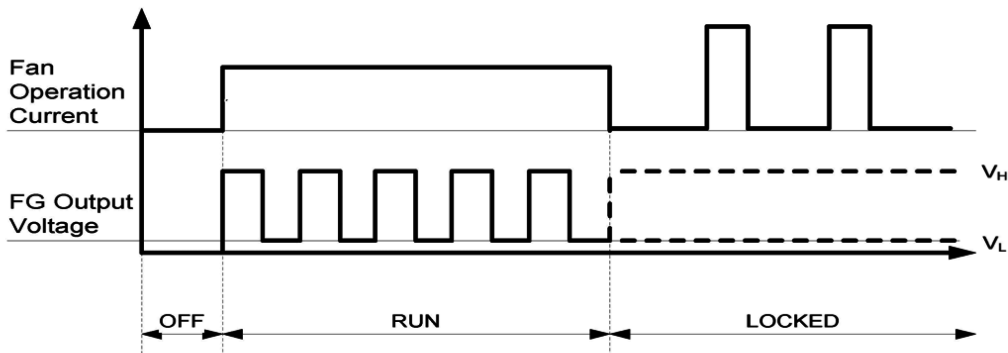
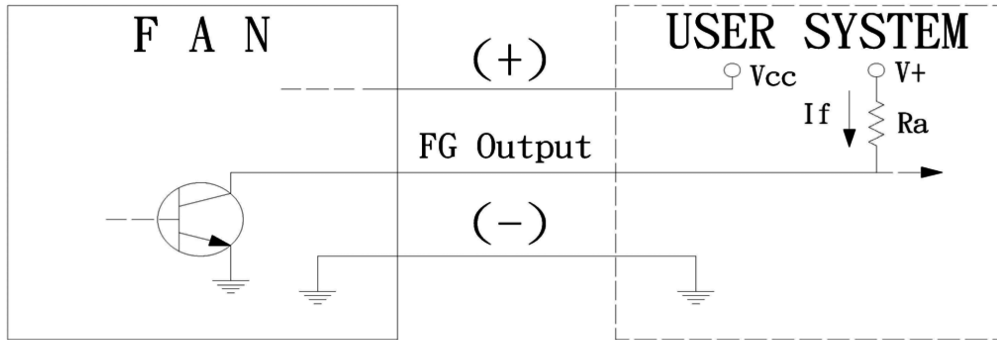
$$T = \frac{60}{\text{rpm}}$$

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Fan 3rd Wire

F Type (Frequency Generator)



Electrical Characteristics : (at $T_a = 25^\circ\text{C}$, $V_{cc} = 3\text{V}$)

Parameter	Ratings			Unit
	Min.	Typ.	Max.	
FG Supply Voltage (V+)	-	-	3.5	Voltage
FG Output Current (If)	-	-	4	mA
FG Output (VL)	-	-	0.5	Voltage
FG Output (VH)	-	V+	-	Voltage

Part Number Table

Description	Part Number
DC Brushless Fan	MC34115

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