

IP55 Protected/Tacho Output Brushless DC Fan

06025SE

NMB

General Specifications

Motor Type:

DC Brushless Motor

Motor Protection:

Auto Restart / Polarity Protection (Motor withstands reverse connection for positive and negative leads.)

Insulation Resistance:

10MΩ or over with a DC 500V Megger

Dielectric Withstand Voltage:

AC 700V 1sec or 500V 1min

Allowable Ambient Temperature Range:

-10°C ~ + 70°C (Operating)

-40°C ~ + 70°C (Storage)

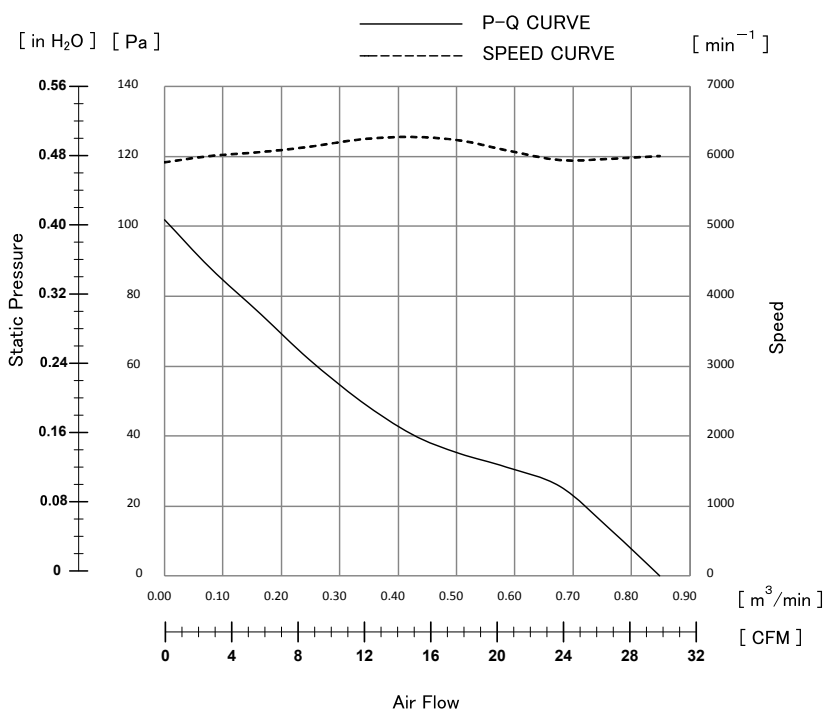
(non-condensing environment)

Installation:

Fans to be installed with leadwire pointing downward to avoid water ingress to the motor.



Characteristic Curves



Features

- Meets IP55 rating and below per IEC 60529 standard
- Long life and high reliability with NMB rust resistant precision ball bearings
- Open Drain Tacho Signal output for fan speed

Life Expectancy L10

40,000 Hours at 60°C

**Fan life expectancy is based on free air operation at 60°C, rated voltage, and indoor benign lab environment*

**1: Values in Free Air*

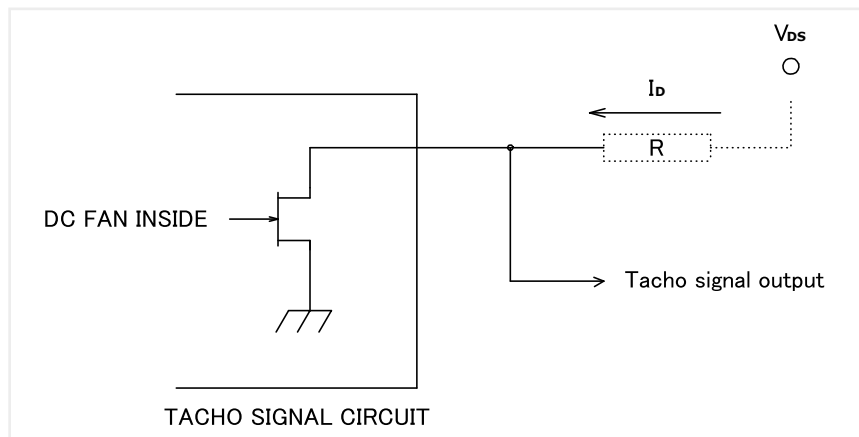
Specifications

MODEL	Rating Voltage	Operating Voltage	Current		Input Power		Speed	Max. Air Flow		Max. Static Pressure		Noise	Mass
	(V)	(V)	Avg	Max	Avg	Max		(CFM)	(m³/min)	(in H₂O)	(Pa)		
			(A)*1	(A)*1	(W)*1	(W)*1	(min⁻¹)*1					(dB)*1	(g)
06025SE-12R-FT-DW	12	7.0-13.2	0.23	0.31	2.76	3.72	6000	30.0	0.85	0.405	101	38.5	65
06025SE-24R-FT-DW	24	12.0-27.6	0.10	0.15	2.40	3.60	6000	30.0	0.85	0.405	101	38.5	65

TACHO Specifications**Tachometer Signal**

1. Output Circuit: Open Drain

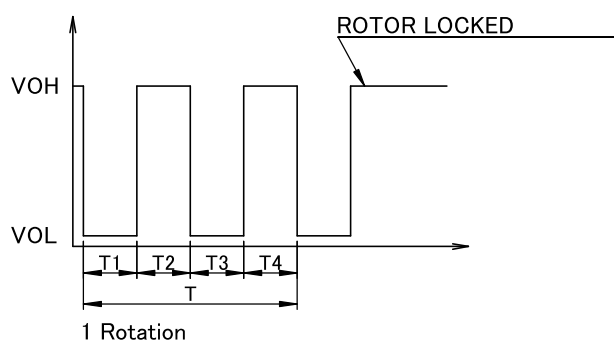
2. Specification

Absolute Maximum Ratings at $T_a=25^\circ\text{C}$ $V_{DS} \text{ max: } +15\text{V}$ $I_D \text{ max: } 5\text{mA} [V_{DS}(\text{sat}) \text{ max}=0.5\text{V}]$ 

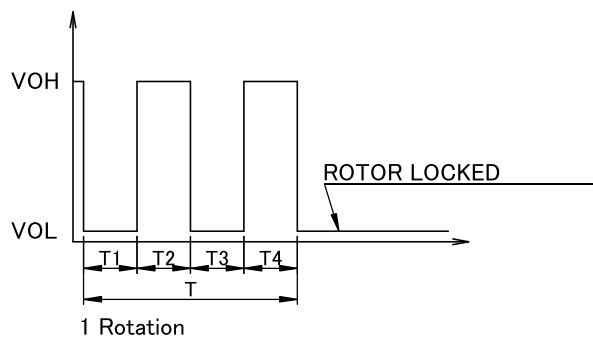
3. Output Waveform: At Rated Voltage

Output Signal Voltage

Case-1

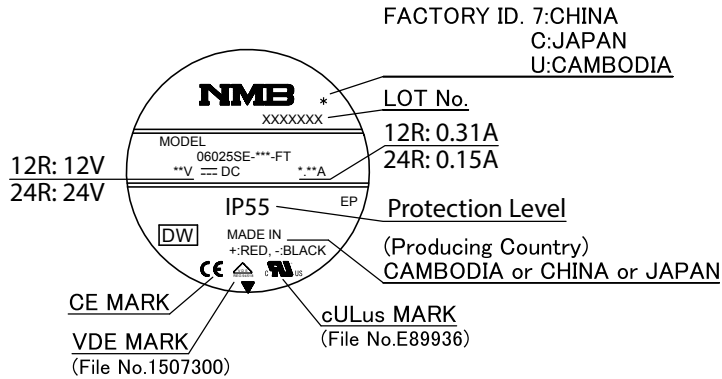


Case-2

1) When the rotor is locked at V_{OH} position of signal, signal keeps V_{OH} position.2) When the rotor is locked at V_L position of signal, signal keeps V_L position.3) $T = T_1 + T_2 + T_3 + T_4 = 60/m = 1 \text{ rotation}$ m: Fan Speed (min^{-1})Tacho Duty Cycle = $50\% \pm 10\%$

Outlines

(Name Plate)



Materials

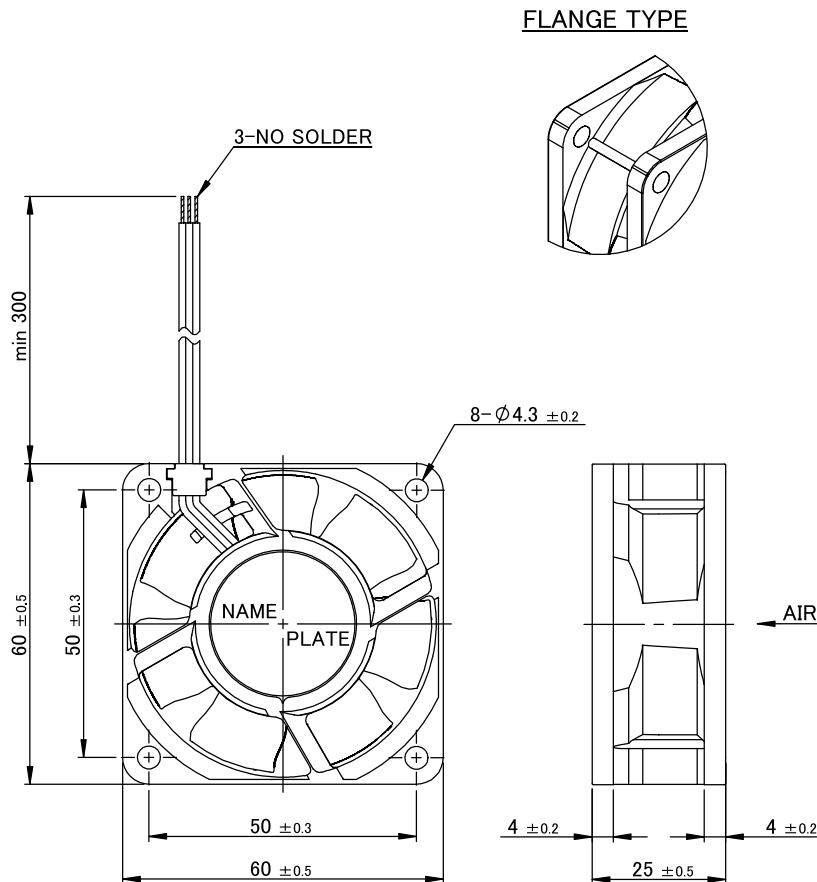
Casing: Plastic (Black UL94V-0)

Impeller: Plastic (Black UL94V-0)

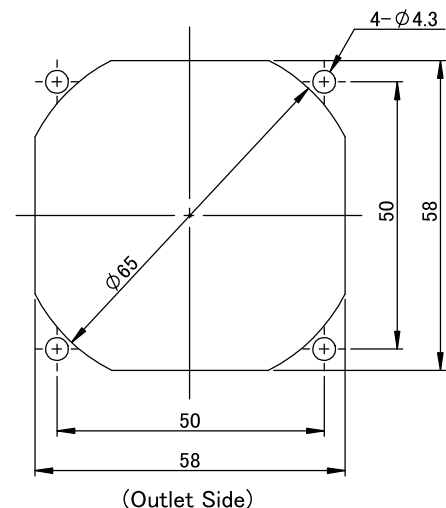
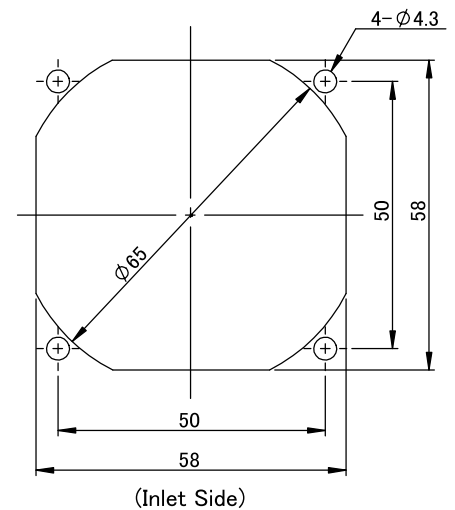
Bearing: Ball Bearing

Lead Wire: (+): Red (-) Black
Tacho: White

(Outline)



(Panel Out-line)



*Install the fans with rotor impeller facing up or in vertical position to avoid water accumulation in the rotor cup.

*IP protection does not provide long term reliability guarantee.

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