

# 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)

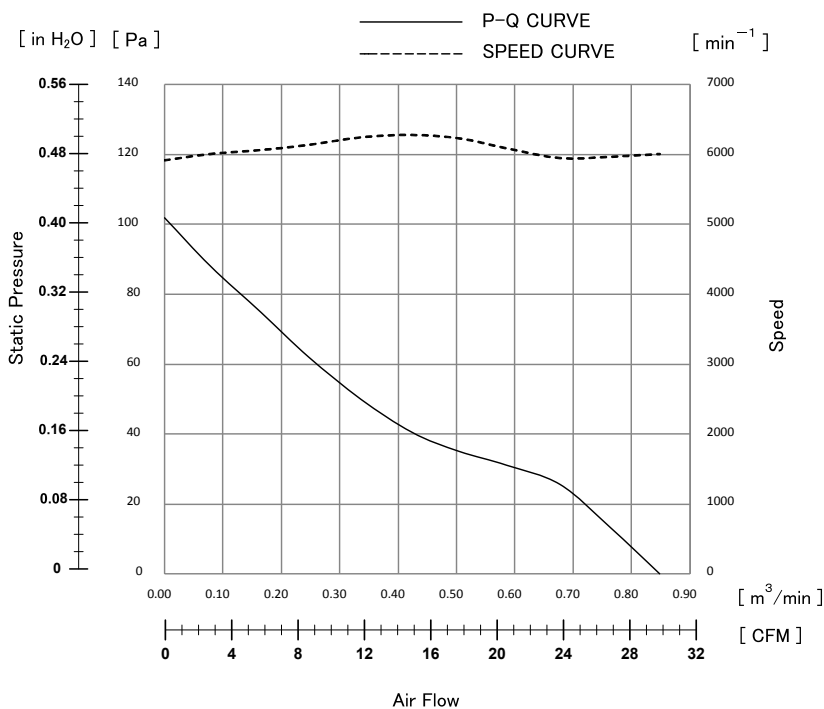
(non-condensing environment)

### 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 (V)	Operating Voltage (V)	Current		Input Power		Speed (min <sup>-1</sup> )*1	Max. Air Flow		Max. Static Pressure		Noise (dB)*1	Mass (g)
			Avg	Max	Avg	Max		(CFM)	(m <sup>3</sup> /min)	(in H <sub>2</sub> O)	(Pa)		
			(A)*1	(A)*1	(W)*1	(W)*1							
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

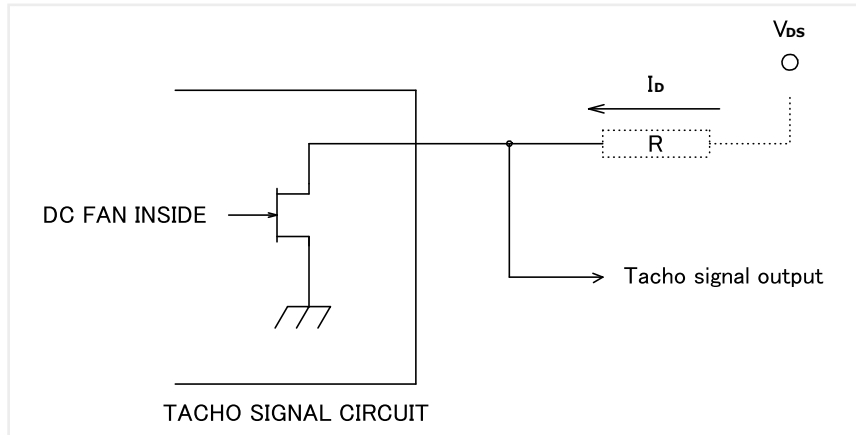
### Tachometer Signal

1. Output Circuit: Open Drain
2. Specification

*Absolute Maximum Ratings at Ta=25°C*

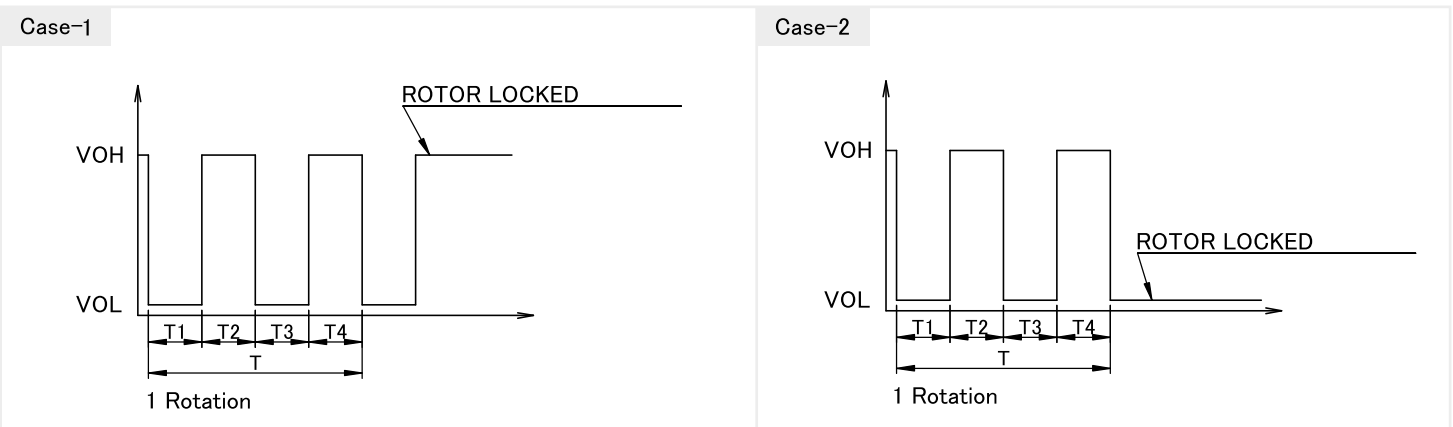
$V_{DS}max: +15V$

$I_Dmax: 5mA[V_{DS}(sat)max=0.5V]$



### 3. Output Waveform: At Rated Voltage

#### Output Signal Voltage



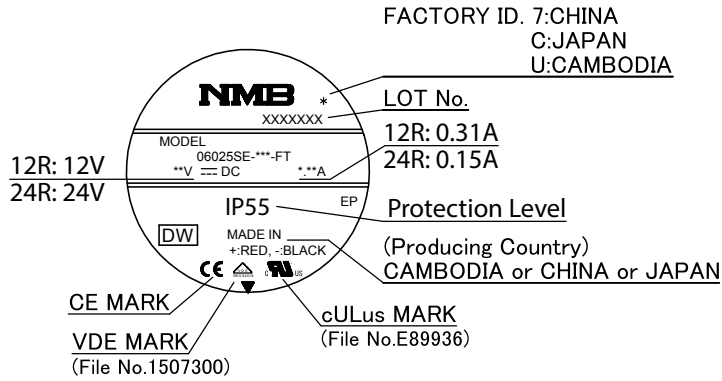
- 1) When the rotor is locked at VOH position of signal, signal keeps VOH position.
- 2) When the rotor is locked at VOL position of signal, signal keeps VOL position.
- 3)  $T=T1+T2+T3+T4=60/m=1$  rotation

m: Fan Speed ( $min^{-1}$ )

Tacho Duty Cycle=50%±10%

## Outlines

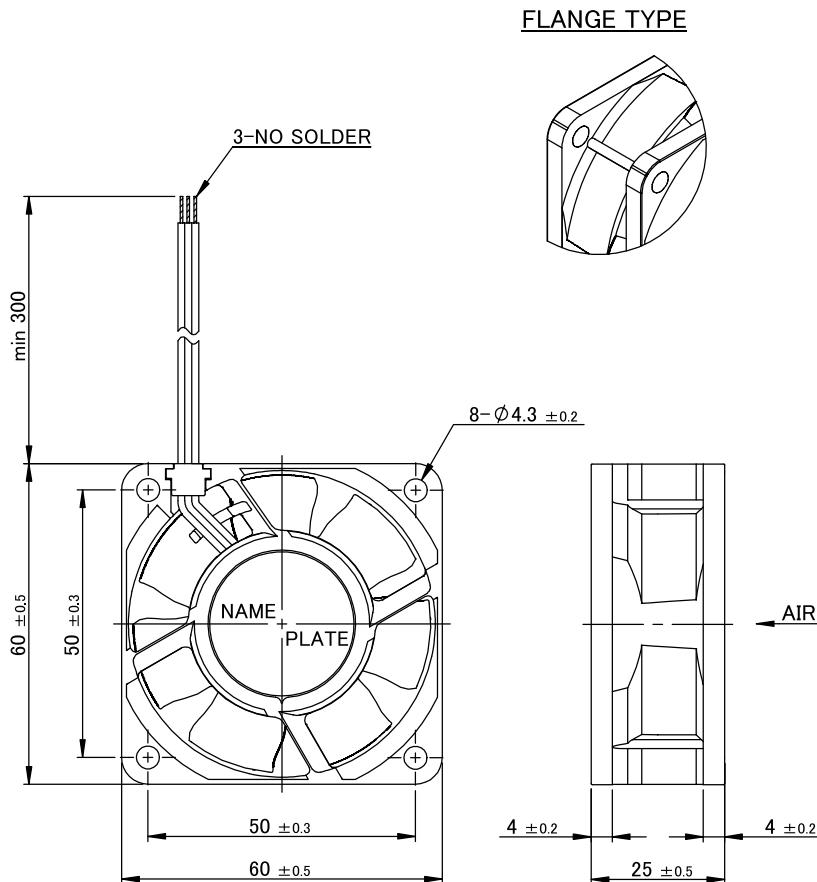
(Name Plate)



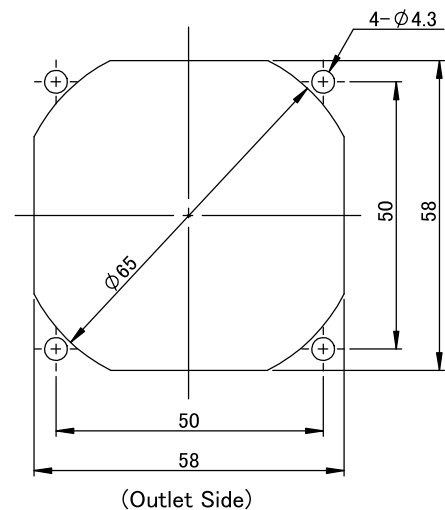
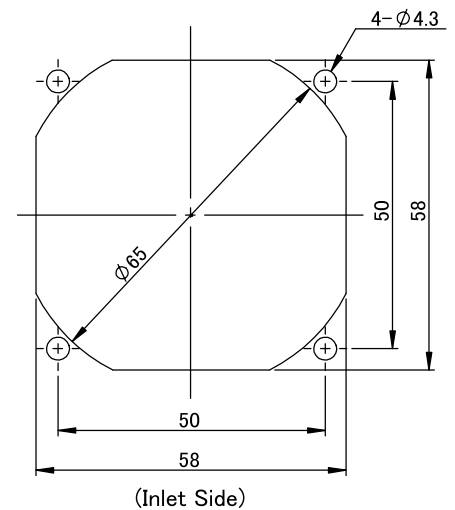
## Materials

**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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