

# IP55 Protected/Tacho Output Brushless DC Fan 08025SE

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 for 12Q (Operating)

-10°C ~ +60°C for 24R (Operating)

-40°C ~ +70°C (Storage)

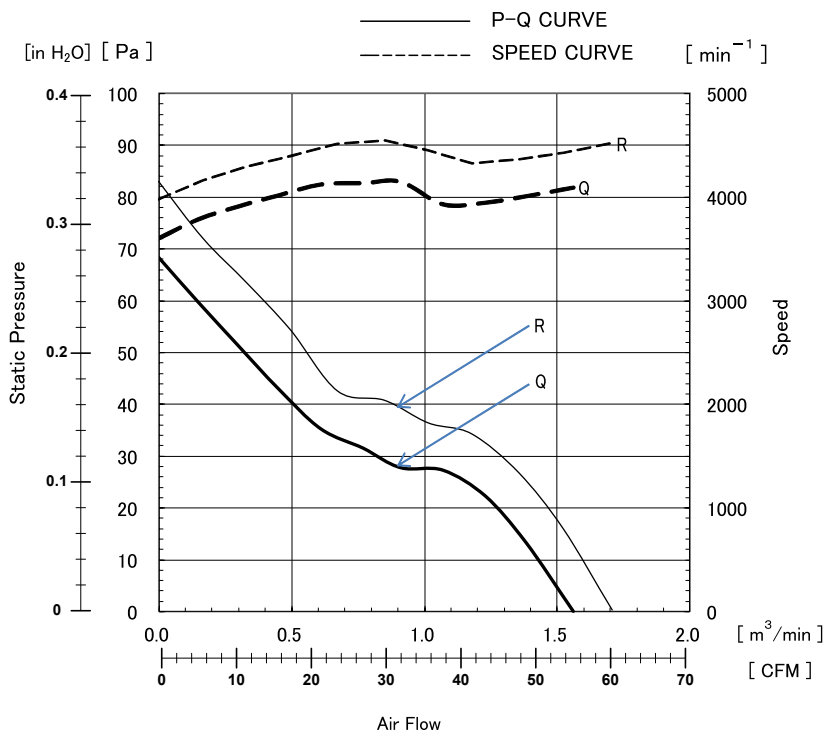
(non-condensing environment)

### 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 (A)*1	Max (A)*1	Avg (W)*1	Max (W)*1		(CFM)	(m <sup>3</sup> /min)	(in H <sub>2</sub> O)	(Pa)		
			(A)*1	(A)*1	(W)*1	(W)*1		(min <sup>-1</sup> )*1	(CFM)	(m <sup>3</sup> /min)	(in H <sub>2</sub> O)		
08025SE-12Q-FT-DW	12	7.0-13.8	0.26	0.38	3.12	4.56	4100	54.7	1.55	0.273	68	39.5	80
08025SE-24R-FT-DW	24	12.0-26.4	0.17	0.22	4.08	5.28	4500	60.0	1.70	0.329	82	42.0	80

## TACHO Specifications

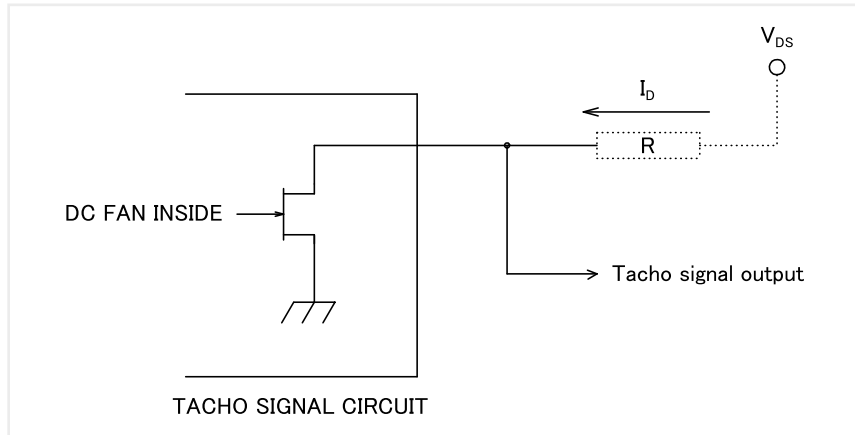
### Tachometer Signal

1. Output Circuit: Open Drain
2. Specification

*Absolute Maximum Ratings at Ta=25°C*

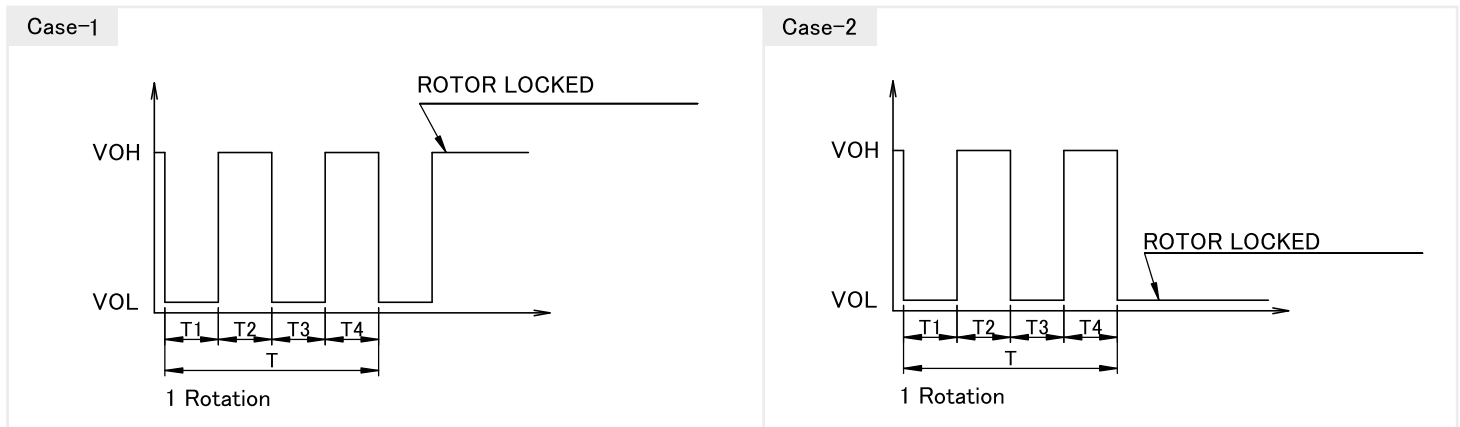
$V_{DS}max: +15V$

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



### 3. Output Waveform: At Rated Voltage

Output Signal Voltage



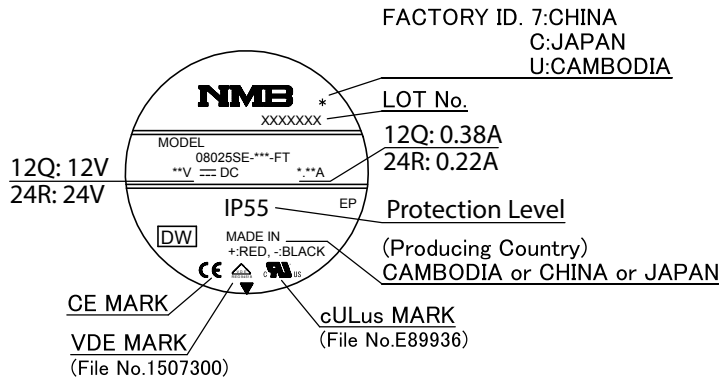
- 1) When the rotor is locked at VOH position of signal, signal keeps VOH position.
- 2) When the rotor is locked at VOL position of signal, signal keeps VOL position.
- 3)  $T=T1+T2+T3+T4=60/m=1$  rotation

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

Tacho Duty Cycle=50%±10%

## Outlines

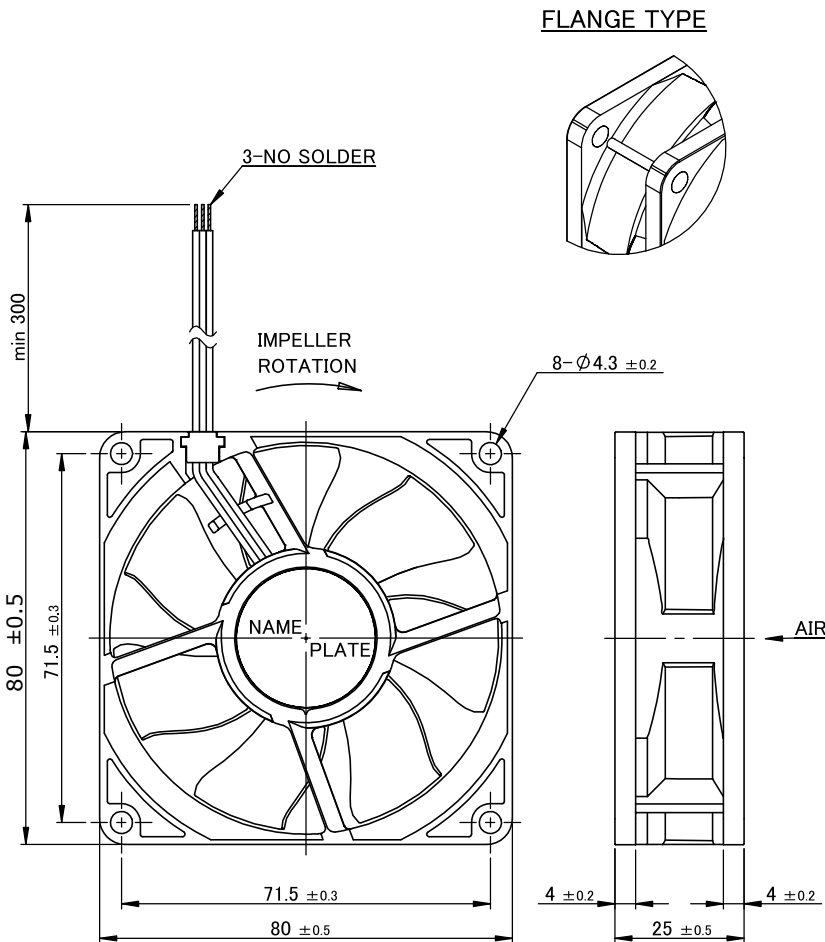
(Name Plate)



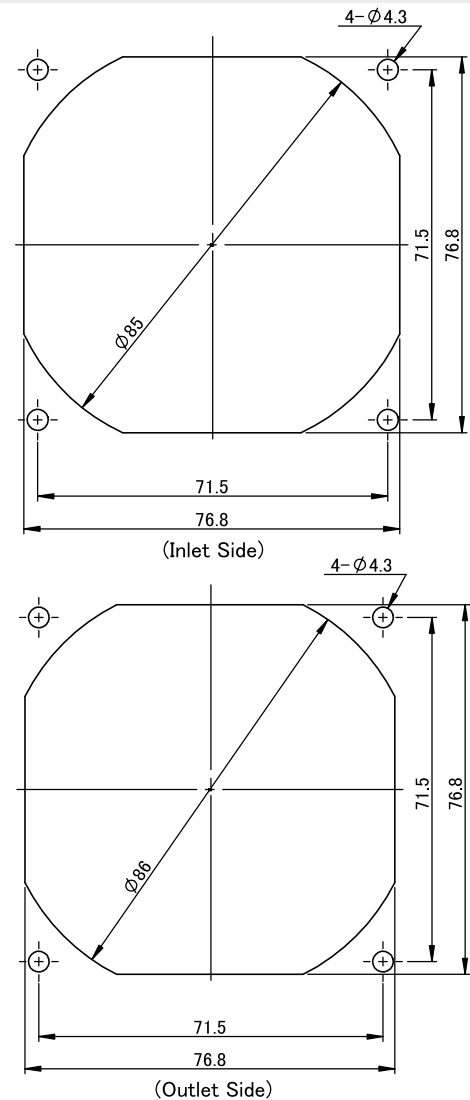
## Materials

**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.