

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)

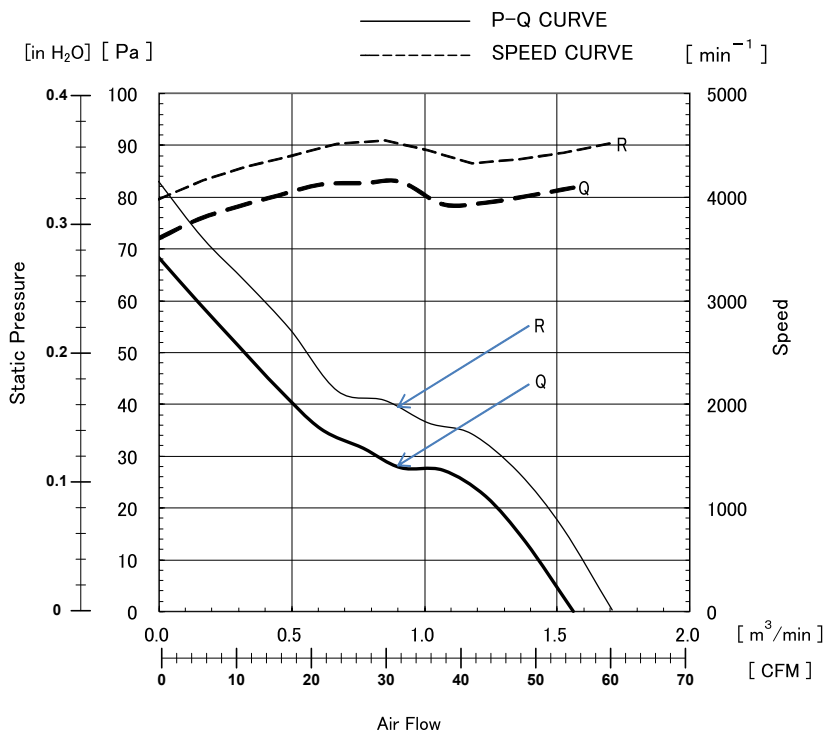
(non-condensing environment)

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 ⁻¹)*1	Max. Air Flow		Max. Static Pressure		Noise (dB)*1	Mass (g)
			Avg	Max	Avg	Max		(CFM)	(m ³ /min)	(in H ₂ O)	(Pa)		
			(A)*1	(A)*1	(W)*1	(W)*1							
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

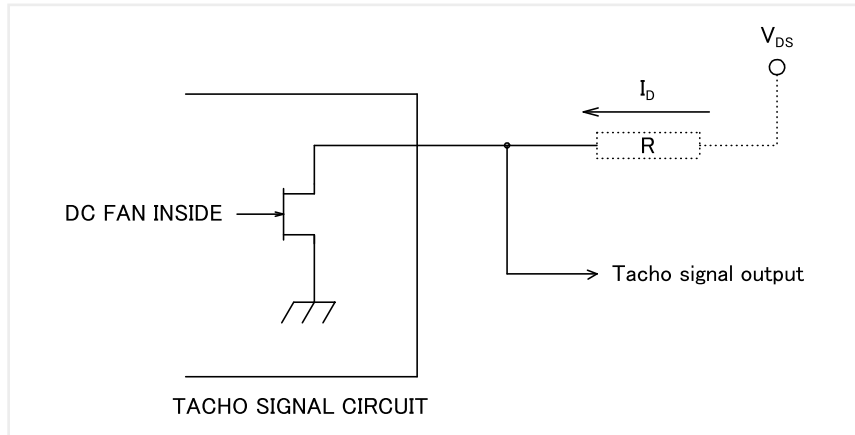
Tachometer Signal

1. Output Circuit: Open Drain
2. Specification

Absolute Maximum Ratings at Ta=25°C

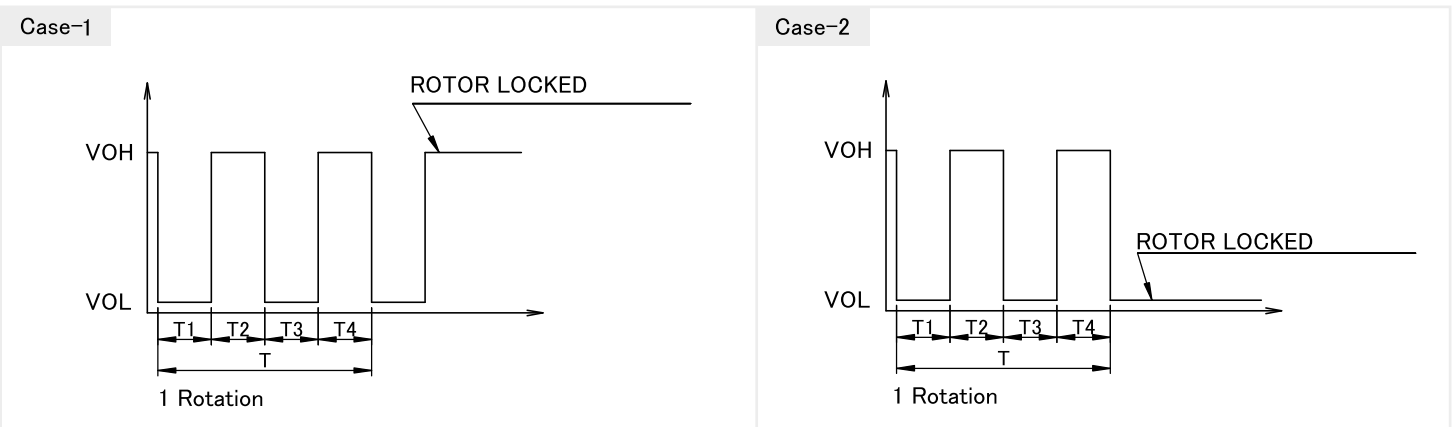
$V_{DS}max: +15V$

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



3. Output Waveform: At Rated Voltage

Output Signal Voltage



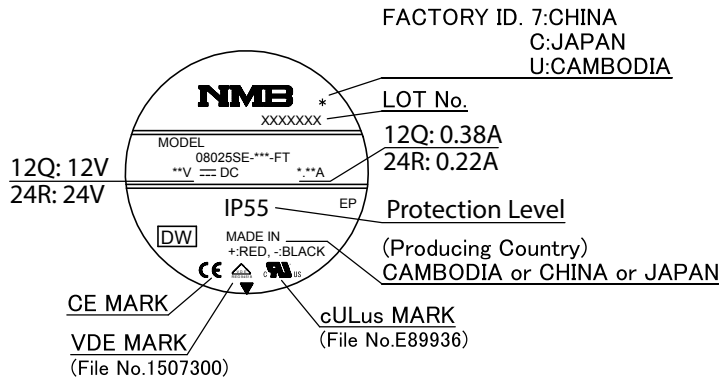
- 1) When the rotor is locked at VOH position of signal, signal keeps VOH position.
- 2) When the rotor is locked at VOL position of signal, signal keeps VOL position.
- 3) $T=T1+T2+T3+T4=60/m=1 \text{ rotation}$

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

Tacho Duty Cycle=50%±10%

Outlines

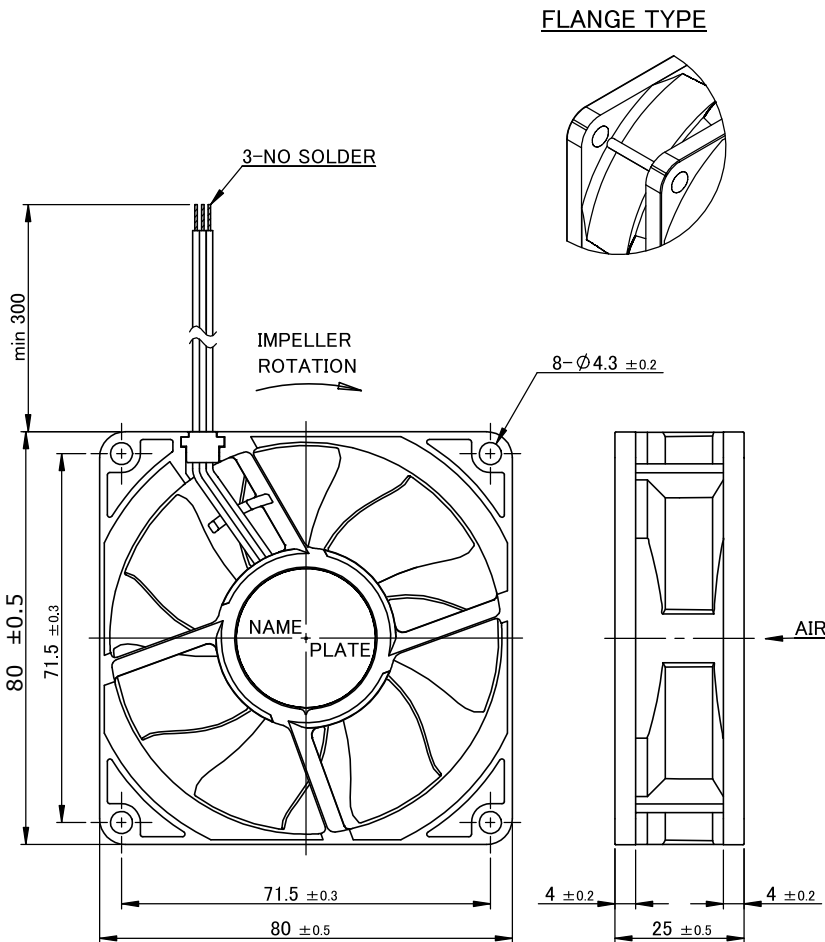
(Name Plate)



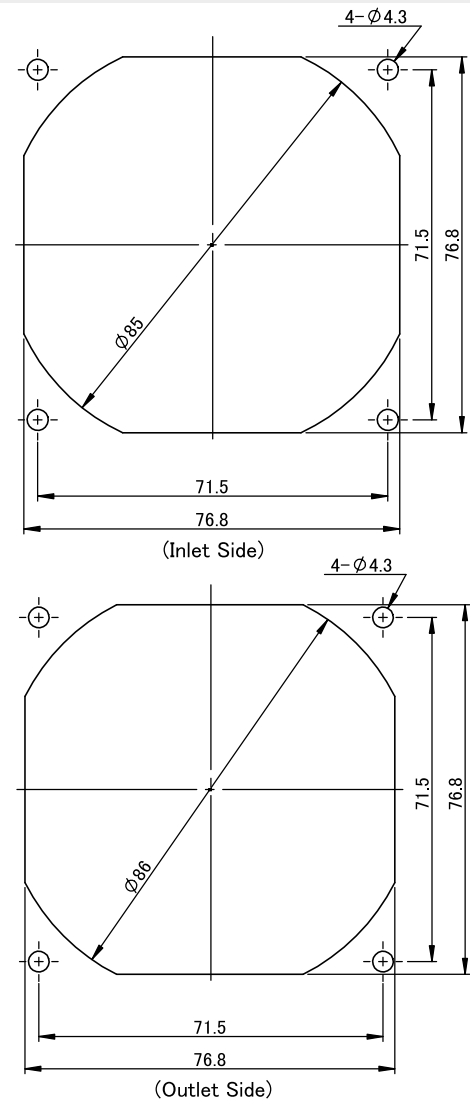
Materials

Case: 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.