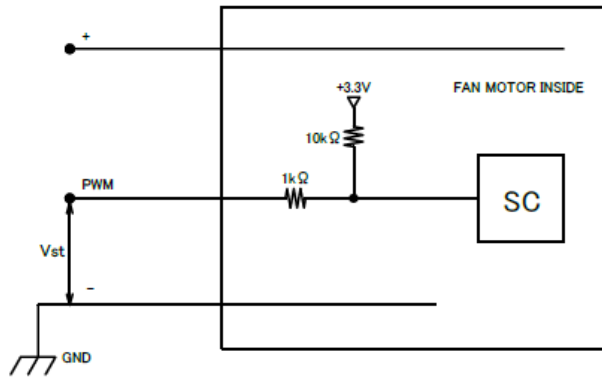


PWM and Tach Output Brushless DC Fan 06025SA-12S-AU-D6

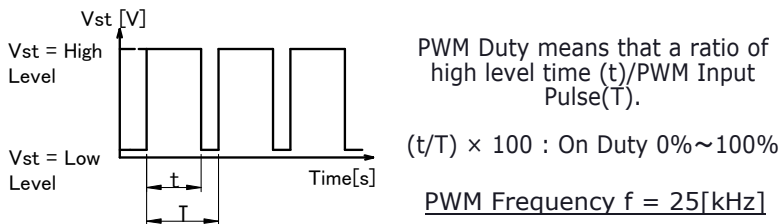
NMB

PWM Specifications

Connection

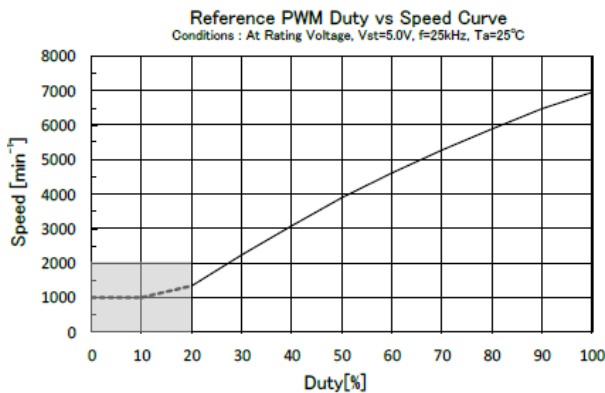


1. PWM Control
 $V_{st} = \text{Low Level (0V} \sim \text{0.4V)} \rightarrow \text{Stop (On Duty 0\%)}$
 $V_{st} = \text{High Level (4.0V} \sim \text{5.0V)} \rightarrow \text{Full Speed (On Duty 100\%)}$
 $V_{st} = \text{Open} \rightarrow \text{Full Speed}$
2. PWM Duty & PWM Input Pulse



3. The condition for PWM control are as follows
 - When you use this under PWM control, always be sure the motor's operation under practical mounting state. Fan motor may not start up caused by PWM control at very low speed condition.)
 - To run at Rating Voltage
 - Please use the start with Duty 20% or more at 25kHz.[At rated voltage input, Ambient temperature 25°C]

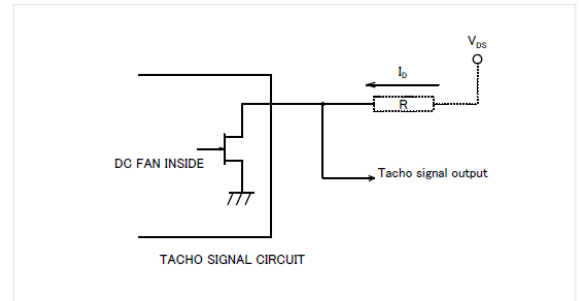
PWM Characteristic Curve



TACHO Specifications

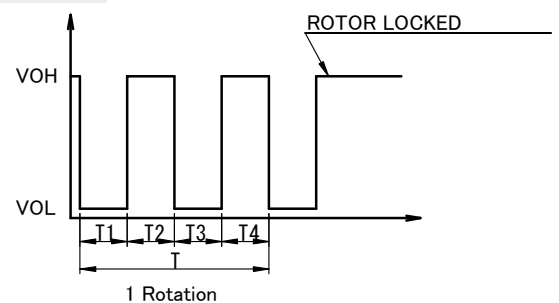
Tachometer Signal

1. Output Circuit: Open Drain
2. Specification
Absolute Maximum Ratings at $T_a=25^\circ C$
 $V_{DSmax}: +15V$
 $I_{Dmax}: 5mA [V_{DS(sat)max}=.5V]$

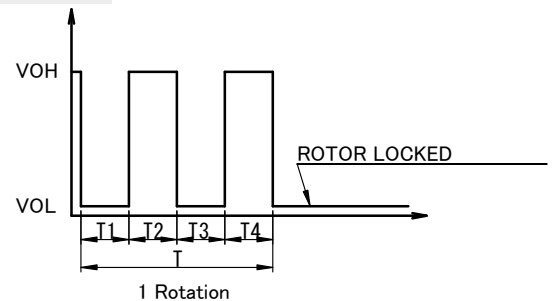


3. Output Waveform: At Rated Voltage
 Output Signal Voltage

Case-1



Case-2



- 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= $50\% \pm 10\%$

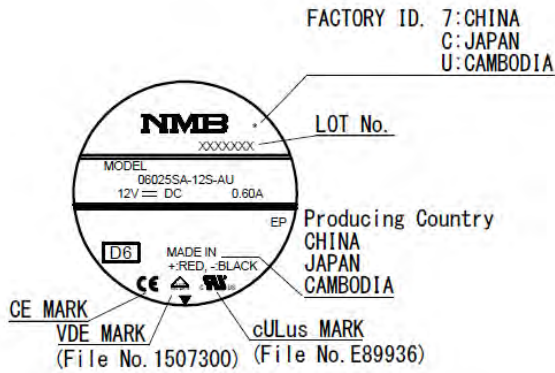
PWM and Tach Output Brushless DC Fan

06025SA-12S-AU-D6

NMB

Outlines

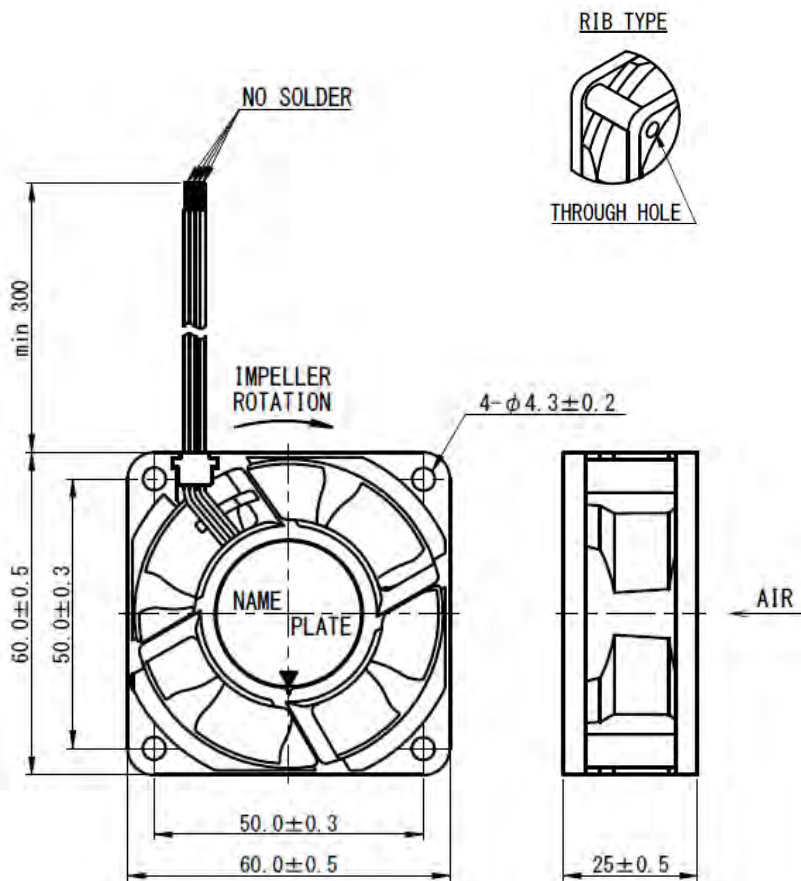
(Name Plate)



Materials

- Casing:** Plastic (Black UL94V-0)
- Impeller:** Plastic (Black UL94V-0)
- Bearing:** Steel Ball Bearing
- Lead Wire:** UL3385 AWG26
 - (+): Red
 - (-): Black
- Tacho:** White
- PWM:** Brown

(Outline)



(Panel Out-line)

