

General Specifications

Motor Type: 3 Phase DC Brushless Motor

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

Insulation Resistance: 10M Ω or over with a DC500V Megger

Dielectric Withstand Voltage: AC 500V 1min

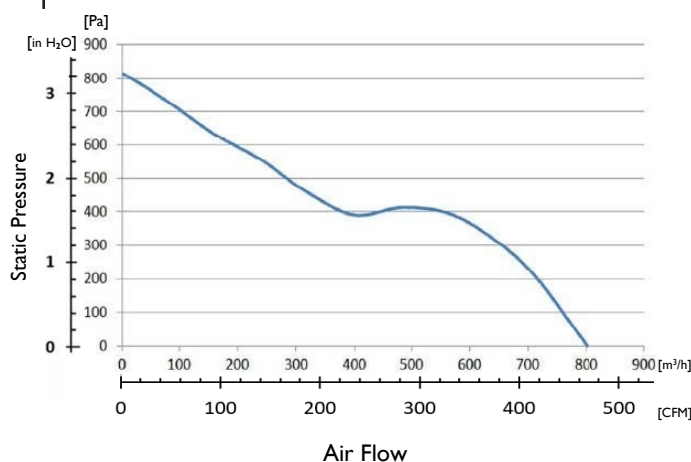
Allowable Ambient Temperature Range:

-30°C ~ +70°C (Operating)

-30°C ~ +70°C (Storage)

(non-condensing environment)

Characteristics Curve



IP Rated Fan Benefits & Applications

PWM Benefits

- Increased life expectancy
- Energy saving
- Lower vibration
- Lower noise
- Current spike prevention

PWM Applications

- Routers and switches
- Data centers and storage
- Broadcast equipment
- Optical repeaters
- Inverters
- UPS
- Battery chargers and fuel cells
- Industrial power supplies
- Welders and plasma cutters
- Test equipment and instrumentation
- Enclosures and more

Features

- Customized fan performance at multiple operating points
- Peak efficiency resulting in lower total ownership costs
- Cost effective and better reliability
- Open collector Tacho output for fan speed

Life Expectancy L10

40°C 70,000 Hours

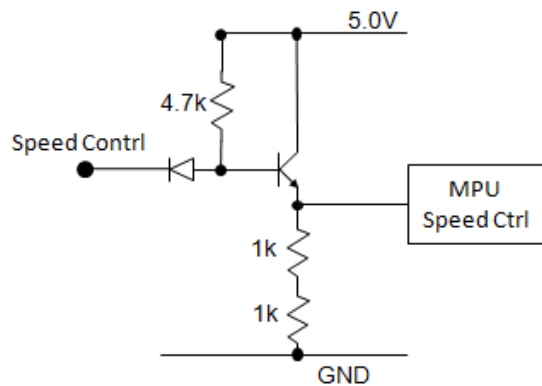
Specifications

MODEL	Rated Voltage	Operating Voltage	Current		Input Power		Speed	Max. Air Flow		Max. Static Pressure		Noise	Mass
			Avg	Max	Avg	Max		(CFM)	(m³/h)	(in H ₂ O)	(Pa)		
	(V)	(V)	(A)*1	(A)*1	(W)*1	(W)*1	(min⁻¹)*1					(dB)*1	(kg)
R172H1-051-D0760	48	43.2 ~ 52.8	2.1	4.3	101	206.4	6,500	473	804	3.19	798	73.0	0.82

*1: Values in Free Air

PWM Specifications

Connection wiring diagram

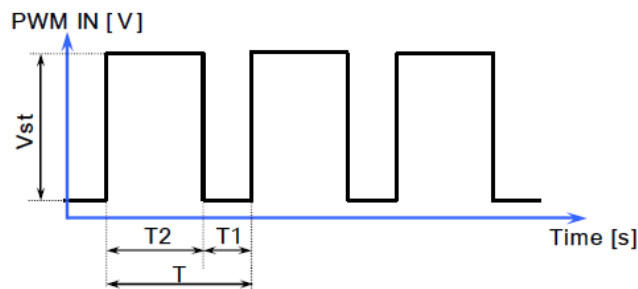


PWM Signal

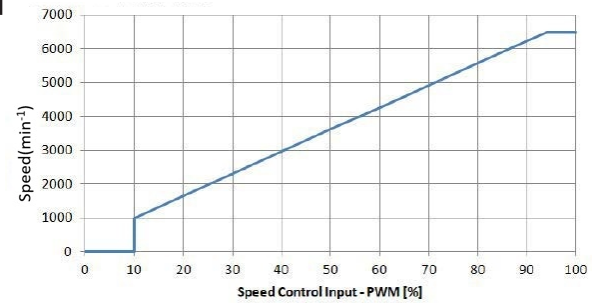
Duty Rate = $(T_2/T) \times 100 [\%]$

$V_{st} = 5 [V]$

Frequency = 300 Hz to 50 kHz



PWM Characteristic Curve



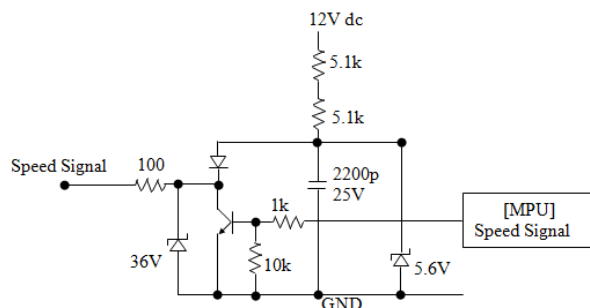
Start-up duty: min 15%

TACHO Specifications

Connection wiring diagram

$V_{max} = 10V$

$I_{max} = 5mA \text{ max}$

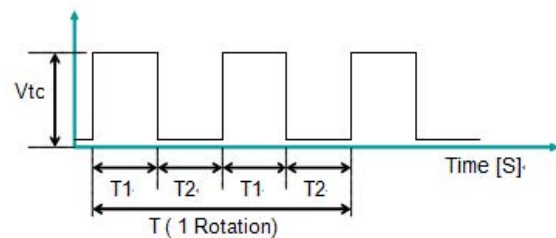


Output Waveform

$V_{tc} = 5 [V]$ Pulled up to 5V inside Fan Motor

2 Pulse / Revolution

$T_1 = T_2$ ($50 \pm 10\%$ Duty)



Outline

Name Plate



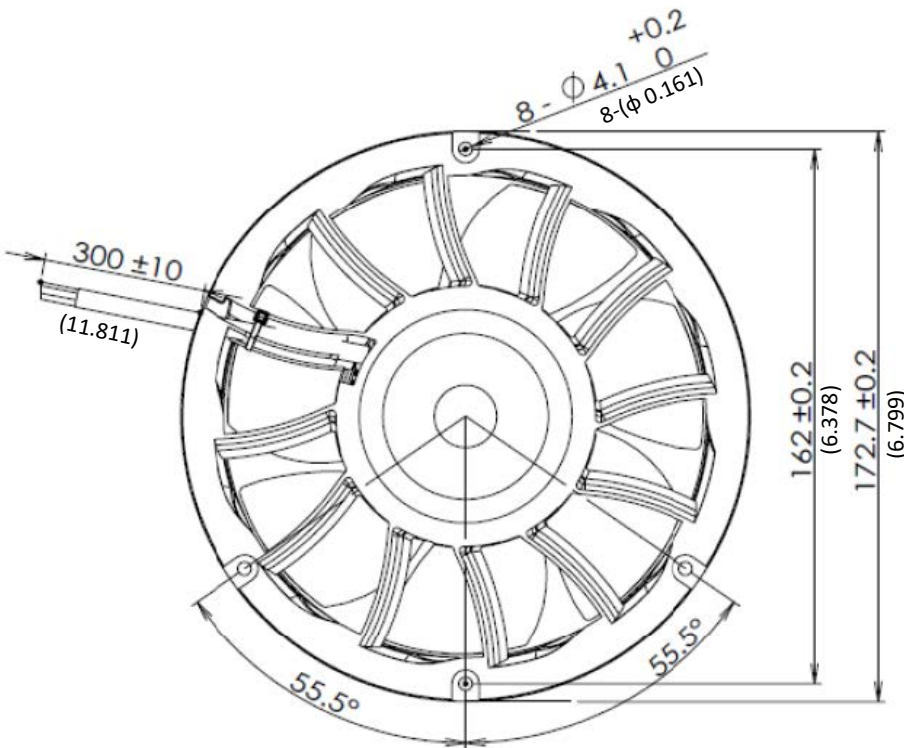
Safety Standard mark print position

Material

Casing : Aluminum
Impeller : Plastic
Bearing : Ball Bearing

Lead Wire : UL3266, AWG20, 22 or equivalent

(+) : Red (-) : Black (PWM): Yellow (Tacho): White



Unit: mm (Inch)

