

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

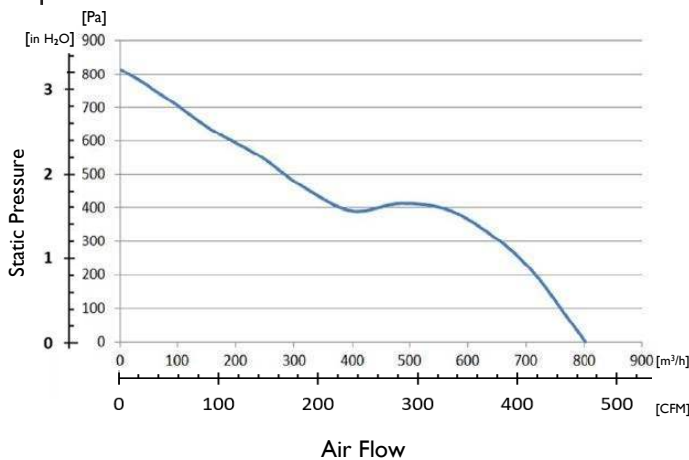
Allowable Ambient Temperature Range:

-30°C ~ +70°C (Operating)

-30°C ~ +70°C (Storage)

(non-condensing environment)

Characteristics Curve



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)		
R172HI-051-D0760	(V)	(V)	(A) ^{*1}	(A) ^{*1}	(W) ^{*1}	(W) ^{*1}	(min ⁻¹) ^{*1}	(CFM)	(m³/h)	(in H ₂ O)	(Pa)	(dB) ^{*1}	(kg)
	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

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

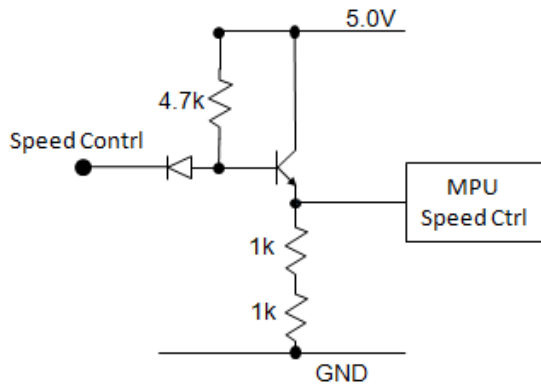
- Customized fan performance at multiple operating points
- Peak efficiency resulting in lower total ownership costs
- Cost effective and better reliability
- Open collector Tacho output for fan speed

Life Expectancy L10

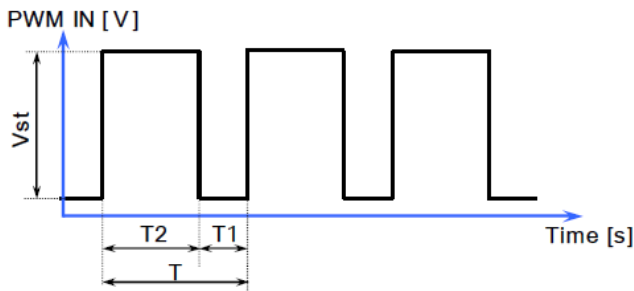
40°C 70,000 Hours

PWM Specifications

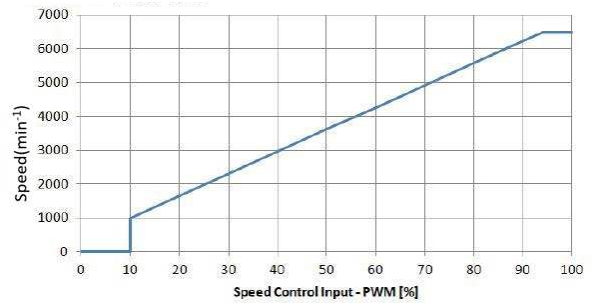
Connection wiring diagram



PWM Signal
 Duty Rate = $(T2/T) \times 100$ [%]
 $V_{st} = 5$ [V]
 Frequency = 300 Hz to 50 kHz



PWM Characteristic Curve

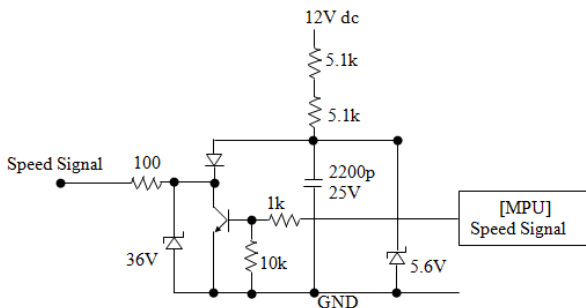


Start-up duty: min 15%

TACHO Specifications

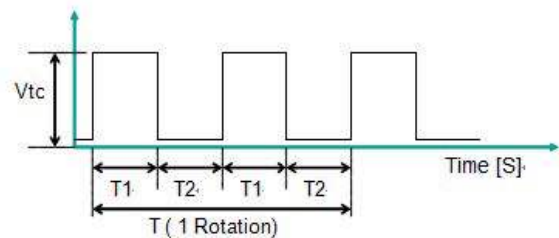
Connection wiring diagram

$V_{max} = 10V$
 $I_{max} = 5mA$ max



Output Waveform

$V_{tc} = 5$ [V] Pulled up to 5V inside Fan Motor
 2 Pulse / Revolution
 $T1 = T2$ (50 ± 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

