

### General Specifications

**Motor Protection:**

Auto Restart/Polarity Protection

**Insulation Resistance:**

10M Ω by DC500V Megger

**Dielectric Withstand Voltage: AC 700V 1s**

**Allowable Ambient Temperature Range:**

-10°C ~ +70°C (Operating)

-40°C ~ +70°C (Storage)

(non-condensing environment)

### Expected Life

**Failure Rate: 10%**

40°C 70,000 Hours

60°C 40,000 Hours

### Material

Casing : Plastic (Black) 94V-0

Impeller : Plastic (Black) 94V-0

Bearing : Ball Bearing

Lead Wire : UL10368/UL1061, AWG 26/28

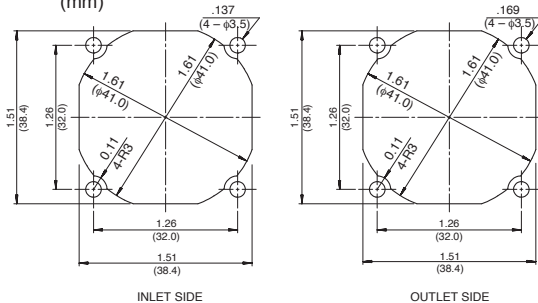
Inlet Fan : +Red, -Black

Tach Sig. : White

PWM Control : Brown

### Panel Cut-Outs

Units: inch (mm)



### PWM Control Voltage

Vst = 0V ~ 0.4V Stop (On Duty 0%)

Vst = 3.0V ~ 5.0V Full Speed (On Duty 100%)

Vst = Open Full Speed (On Duty 100%)

(At Ta = 25°C, rated voltage 12VDC, f=25.0kHz)

### Specifications

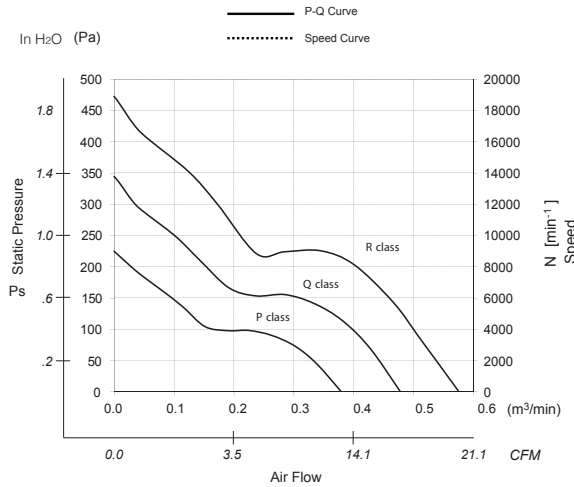
MODEL	Product No.	Rated Voltage	Operating Voltage	Current	Input Power	Speed	Max. Flow		Max. Static Pressure		Noise	Mass
		(V)	(V)	(A) <sup>*1</sup>	(W) <sup>*1</sup>	(min <sup>-1</sup> ) <sup>*1</sup>	Air CFM <sup>*1</sup>	(m <sup>3</sup> /min) <sup>*1</sup>	in H <sub>2</sub> O	(Pa) <sup>*1</sup>	(dB) <sup>*1</sup>	(g)
04028DA-12P-AA	F0	12	10.8 ~ 13.2	0.18	2.16	12000	13.1	0.37	0.92	230.0	45.0	53
04028DA-12Q-AA	F0	12	10.8 ~ 13.2	0.29	3.48	15000	16.6	0.47	1.37	340.0	49.5	53
04028DA-12R-AA	F0	12	10.8 ~ 13.2	0.43	5.16	18000	20.1	0.57	1.93	480.0	54.5	53

Rotation: Clockwise

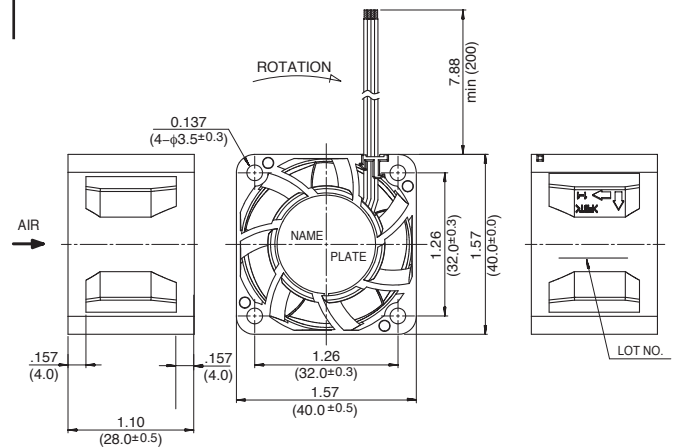
Airflow Outlet: Air Out Over Struts

\*1: Average Values in Free Air

### Characteristic Curves



### Outline



### Reference PWM Duty Vs. Speed Curve

