



120x120x38 mm

DC Axial Fans

FD1238H 48B 45T

PN: 200388



Specifications		
Supply Voltage	VDC	48
Operating Voltage	VDC	35.0 ~ 57.0
Current	A	0.65
Power	W	31.20
Speed	RPM	4500 ± 10%
Airflow	CFM	230.65
Pressure	mmH2O	26.20
Sound Level	dba	64.6
Operating Temp.	°C	-10 ~ +70
Optional Function	-	Tachometer output (FG)

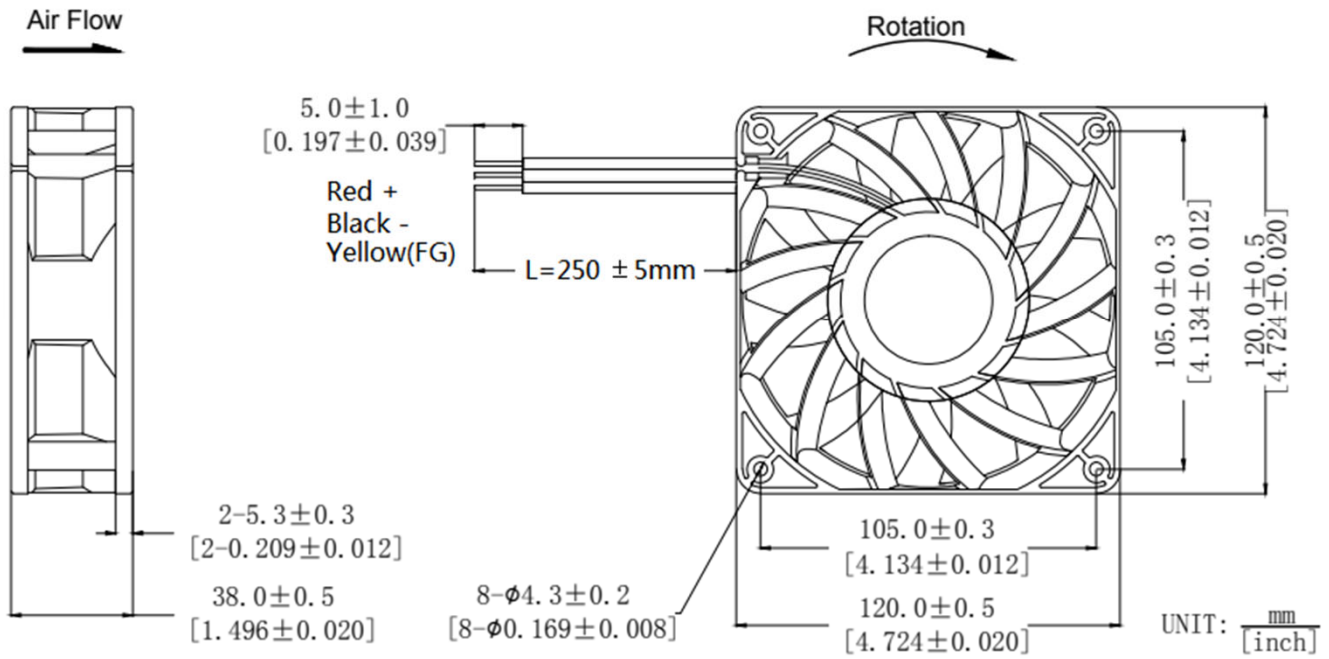
*: above specifications are subject to change without prior notice.

Technical Data		
Dimensions	mm	120x120x38
Impeller Material	-	PBT Black (UL94V-0)
Housing Material	-	PBT Black (UL94V-0)
Weight	g	380
Rotation Direction	-	Clockwise (from label side)
Bearing	-	Ball
Life	hrs.	70000
Lead Wire	-	3 wires (R (+), Blk(-), Y(FG)), UL1007#22AWG, 250±5 mm

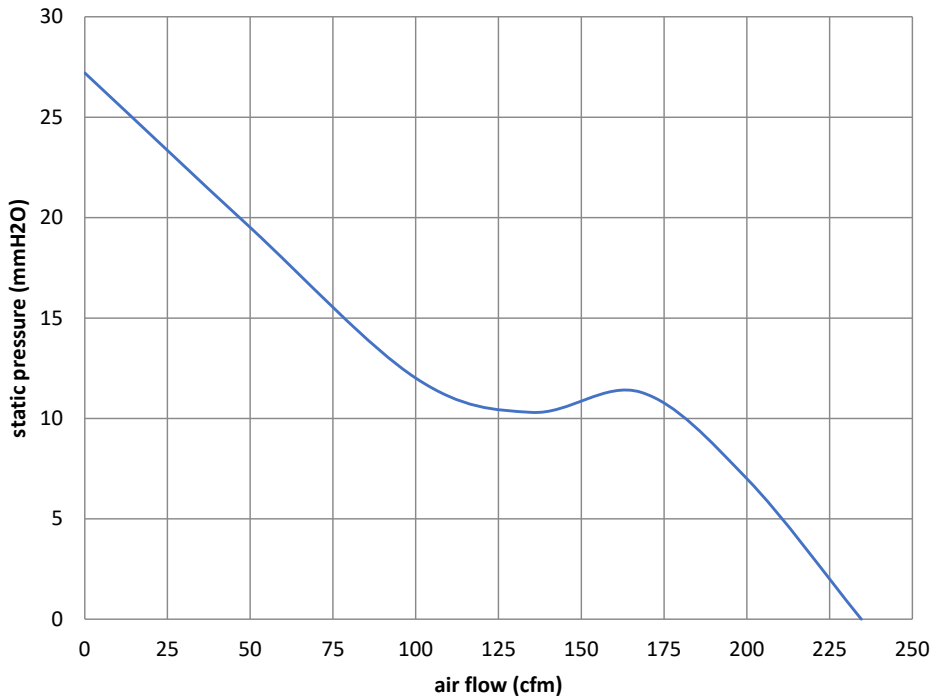
Environmental		
Operating Temp.	°C	-10 ~ +70
Storage Temp.	°C	-40 ~ +85
Humidity	%RH	15 ~ 90
Storage Humidity	%RH	15 ~ 90

Electrical		
Insulation Resistance	Ohm	Min. 10M between unshielded wire and frame at 500 VDC/min.
Dielectric Strength	-	Withstand 500 VAC 1 minute 1mA between housing and both lead wires.
Polarity Protection	-	Open circuit when Vcc and GND are exchanged.
Locked Rotor Protection	-	Auto power off after locked at rated voltage for 1-3 sec, then circuit attempt to restart in 2 to 6 sec.

Dimensions Drawing



Performance

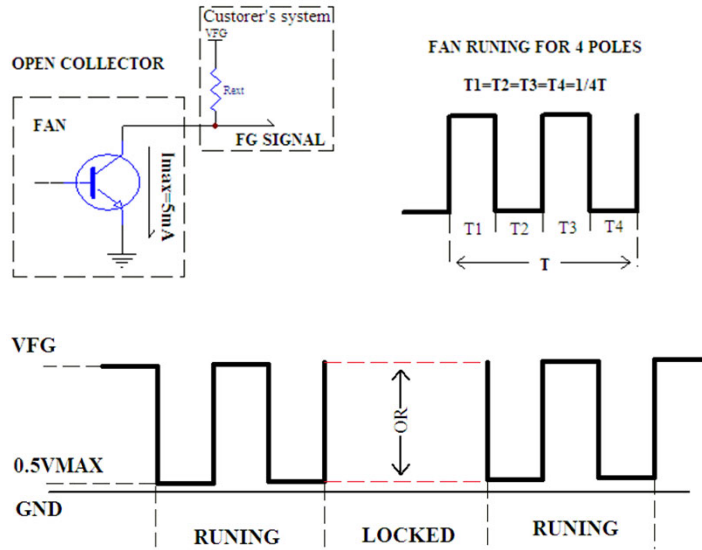


FG Signal:

When fan is running, the switch of rotor N, S can make exchange of high and low level. We can measure fan's rotation speed via the signal of variational frequency.

$$VFG = 19 V_{max} \quad R_{ext}(min) = VFG/I_{max} \quad I_{max} = 5 \text{ mA} \quad V_{ce} = 0.5 V_{max}$$

$$RPM = F * 120 / 4 = 30F$$



Wiring Code

Color	Function
Red	+ V
Yellow	FG Signal
Black	0 V