

Technical Document

FD 9238 48 B 115 P (IP 54)

PN: 200315

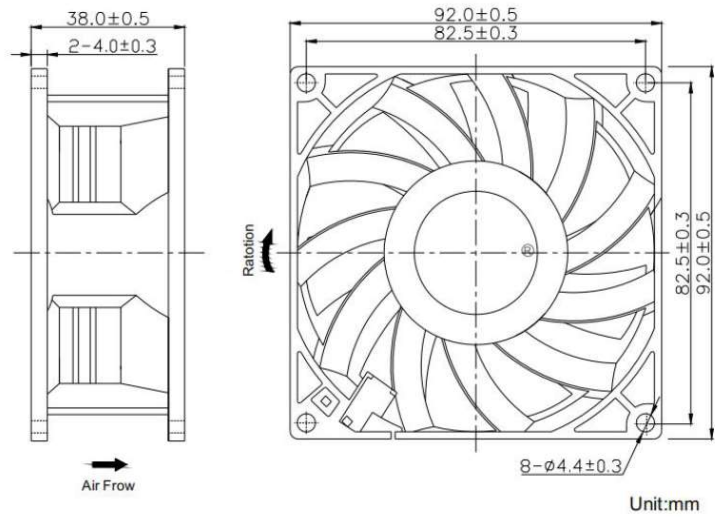
2020, Brussels

Features

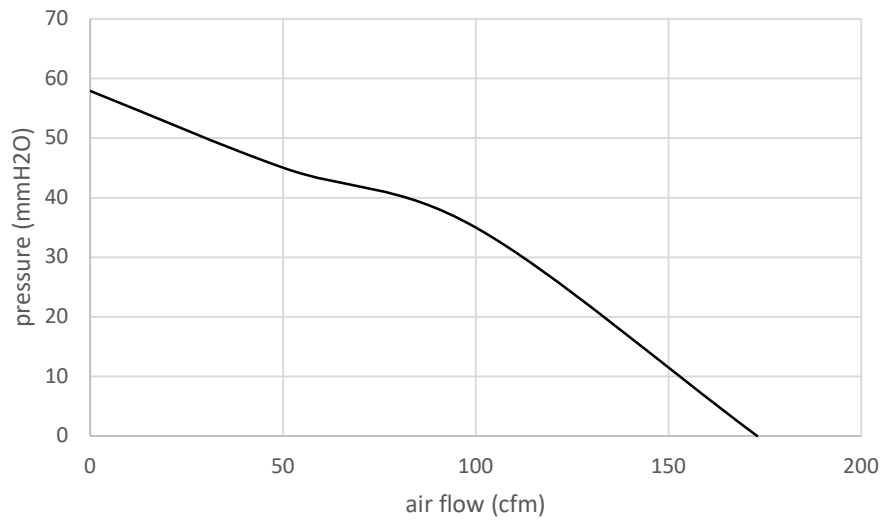
Parameter	Units	Specifications
Dimensions	mm	92x92x38
Weight	gram	248
Power Supply	VDC	48
Operating Voltage	VDC	24.0 ~ 60.8
Rated Current	A	1.23 ± 10%
Rated Power	W	57
Speed	RPM	11500
Air Flow	cfm	min. 173
Static Pressure	mmH ₂ O	57.9
Sound Level	dBA	70
Operating Temp.	°C	-10 ~ +70
Storage Temp.	°C	-10 ~ +70
Operating Humidity	%RH	35 ~ 85
Storage Humidity	°C	35 ~ 85
Life	hours	50000 @40°C 15%~65%RH
Locked Rotor Protection	-	Auto power off after locked at rated voltage for 1-3sec. And then circuit attempt to restart in 2 to 6 sec. There is no damage after 72hours locking.
Polarity Protection	-	Circuit won't be burned within 5 sec. when Vcc & GND are exchanged.
Insulation Resistance	-	Min. 10 MOhm between unshielded wire and frame at 500 VDC/min.
Dielectric Strength	-	Withstand 500VAC, 5mA for 1 minute between lead wires and frame
Bearing	-	ball bearing
Housing Material	-	UL 94-0 rating PBT
Impeller Material	-	UL 94-0 rating PBT
Electrical Connection	-	Lead wires (UL 1007 22AWG)
Other Features	-	PMW speed control
IP Protection	-	IP 54
Certifications	-	CE

*: above specifications are subject to change without prior notice

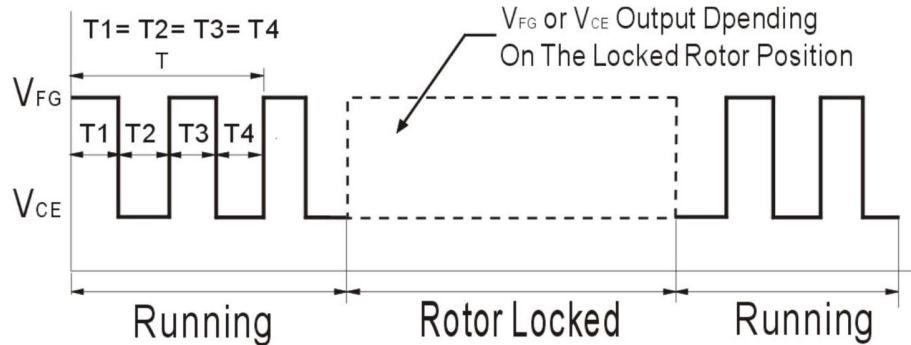
Dimensions



Performance



FG Signal Output Waveform



Where: $N = \text{RPM}$; $T = 60/N$ (sec.); $FG = 1/T^2$ (Hz); $N = FG \cdot 30$
 $V_{FG} = V_{CC} = 5 \text{ VDC}$ $V_{CE(sat)} = 0.5 \text{ VDC (max.)}$

Open collector circuit, accepted voltage range is 2 ~ 24 VDC, choose the pullup resistor wisely (not too small) to avoid damage.

PWM Control Signal

- 1) The accepted frequency for control signal of the fan is 10Hz~25KHz;
- 2) $V_{INH} = 3.0 \sim 5.0 \text{ VDC}$; $V_{INL} = 0 \sim 0.5 \text{ VDC (max.)}$
- 3) Duty cycle:



Ordering Code:

Model	Part Number	Description
FD 9238 48 B 115 P (IP54)	200315	DC92x92x38 fan, 48 VDC, 11500 rpm, ball bearing, with PWM, IP 54