



CFM300M SERIES

300 WATT AC-DC POWER SUPPLY WITH PFC



Features

- * Universal Input Range 90 ~ 264Vac
- * Active PFC Meets EN61000-3-2
- * High Efficiency up to 94%
- * High Power Density up to 14.1W/Inch³
- * Over Temperature Protection
- * Continuous Short Circuit Protection
- * Remote Voltage Sense
- * PS On/Off Remote Control
- * Power Good & Power Fail Signal
- * +5V Stand-by Output Power
- * 12V Fan Output
- * No Load Power Consumption<0.3W NOTE6
- * 3"x 5" Size
- * Meets EN55011 Class B
- * IEC/EN/UL 60601-1 2MOPP Approval
- * Meets Class I



Model	Output Voltage	Output Current		Ripple & Noise NOTE 1	Voltage Accuracy NOTE 2	Line Regulation NOTE 3	Voltage ADJ. Range	Load Regulation NOTE 4	% EFF. Typ. NOTE 5
		Rated1	Rated2						
Main Output Voltage									
CFM300M120	+12 V	25A	16.67A	120mV	± 1%	± 0.5%	11.4~12.6	± 1%	92.5%
CFM300M240	+24 V	12.5A	8.34A	150mV	± 1%	± 0.5%	22.8~25.2	± 1%	93.5%
CFM300M360	+36 V	8.34A	5.56A	150mV	± 1%	± 0.5%	34.2~37.8	± 1%	93.5%
CFM300M480	+48 V	6.25A	4.17A	150mV	± 1%	± 0.5%	45.6~50.4	± 1%	94.0%
Stand-by Output Voltage									
All	+5V	1A	0.6A	100mV	± 3%	± 1%	--	± 5%	--
Fan Output Voltage									
All	+12V	0.5A		--	--	--	--	--	--

Note:

Rated 1: Forced Air Convection

Rated 2: Natural Convection

PART NUMBER

Series	Number of Outputs	Nominal Output Voltage	Type
CFM300	O	XXX	Y (Option)
CFM300	M: Medical	120: 12VDC 240: 24VDC 360: 36VDC 480: 48VDC	None: With Baseplate C: With Cover

Part Number Example:

CFM300M120: With Baseplate, 300W, 12Vdc Output

CFM300M120C: With Case, 300W, 12Vdc Output

Specifications

INPUT SPECIFICATIONS:

AC Input Voltage 90~264Vac
 120~370Vdc
 Input current 100Vac/4A max., 240Vac/1.8A max.
 Frequency 47 to 63Hz
 Inrush Current Cold start@25°C 30A max. @240Vac
 Leakage Current 180uA typ., 300uA max.

OUTPUT SPECIFICATIONS:

Isolation Input to Output = 4000VAC
 Hold-up Time 20ms typ. @115Vac
 Over Voltage Protection Latch off
 Short Circuit Protection Hiccup Mode (Auto Recovery)
 Temperature Coefficient $\pm 0.05\%/^{\circ}\text{C}$

GENERAL SPECIFICATIONS:

Operating Temperature -40~80°C (see derating curve)
 Storage Temperature -40~85°C
 Over Temperature Protection Auto Recovery
 PS-On Signal Power On: PS-On $\leq 2\text{V}$ (note12)
 Power Off: PS-ON=11-16V, Open Circuit
 Power Good/Power Fail (PG) 250ms>PG>50ms
 The TTL goes high with 50ms to 250ms after power set up
 The TTL goes low at least 5ms before Vo below 90% rated value
 Humidity 93% RH max. Non-Condensing
 Altitude 3000m
 Cooling Natural Convection for 200W~250w (see derating curve)
 Forced Air Convection (10CFM) for 300W
 Switching Frequency 60~80KHz typ. @ Full Load
 MTBF MIL-HDBK-217F, GB, 25°C/115VAC 160Khrs.typ.

Dimensions

With Baseplate Versions 5.000x3.000x1.421 Inches (127.00x76.20x36.1mm)
 -C Covered Versions 5.355x3.425x1.591 Inches (136.00x87.00x40.40mm)
 Weight
 With Baseplate Versions 420g (0.925 Pounds)
 -C Covered Versions 550g (1.21 Pounds)

SAFETY AND EMC:

Emission and Immunity EN60601-1-2 :2015 ed. 4.0, EN55011 Class B,
 FCC CFR 47 Part 18, IEC61000-3-2, 3, IEC61000-4-2, 3, 4, 5, 6, 8, 11
 Safety (Ed. 3.1) Class I, IEC60601-1:2005+A1:2012
 EN60601-1:2006+A11:2011+A1+A12, UL ANSI/AAMI ES60601-1

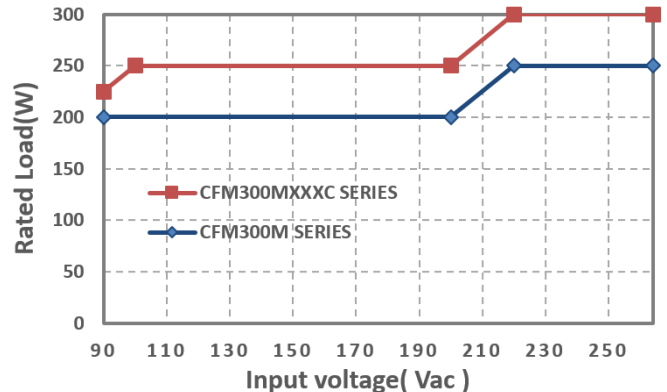
NOTE:

1. Add a 0.1uF ceramic capacitor and a 10uF E.L. capacitor to output for ripple&noise measuring @20MHz BW
2. Voltage accuracy is set at 100% rated load and 25°C.Ta.
3. Line regulation is measured from high line to low line with rated load.
4. Load regulation is measured from full to 10% load.
5. Typical efficiency at 230 VAC and full load at 25°C
6. No load power consumption<0.3W by PS on/off remote control.
7. Input connector (CN1) wafer with TAIWAN KING PIN TERMINAL PVHI series and mate with JST housing VHR series or equivalent.
8. Optional Input connector (CN1) wafer with LONG CHU P3060 series and mate with MOLEX housing 5195 series or equivalent.
9. Output connector CN4 wafer with JST PH series and mate with JST housing PH series or equivalent.
10. Output connector CN5 wafer with TAIWAN KING PIN TERMINAL P110I series and mate with JST housing PH series or equivalent.
11. Output connectors (Vo+ & Vo- with M3 screw) mate with round terminal and round terminal of the max outer diameter is 6.75mm, max inner diameter is 3.9mm.
12. PS-ON and GND short, I_{PS-ON}=4.5 mA typical.

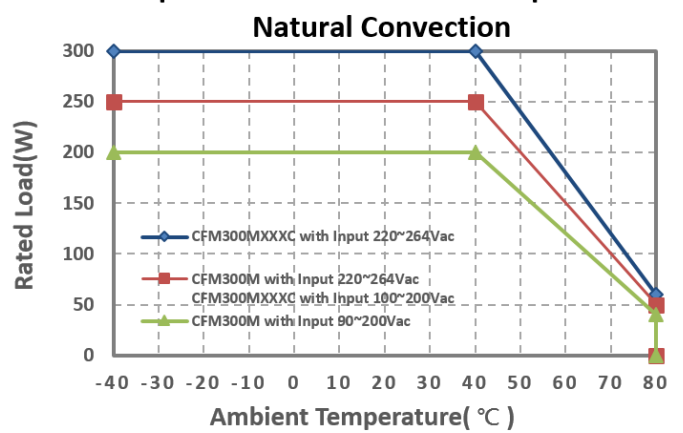
CFM300M Series De-rating Curve

CFM300M Series

Output Power vs. Input Voltage Natural Convection

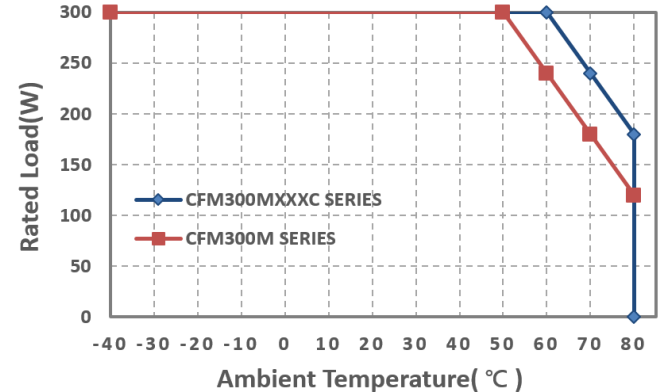


Output Power vs. Ambient Temperature Natural Convection

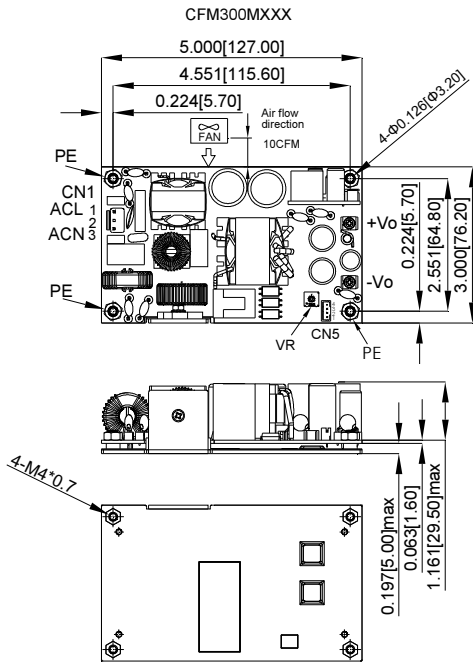


Output Power vs. Ambient Temperature

10 CFM Air Flow



Mechanical Specification



CN1:
PIN CONNECTION

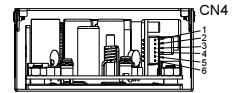
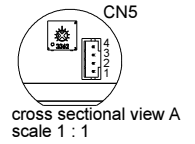
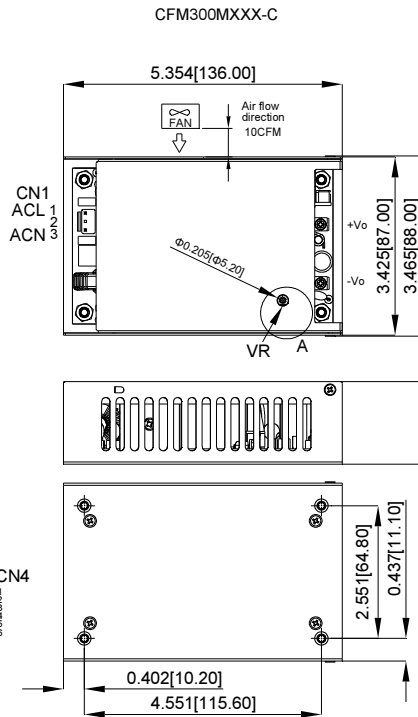
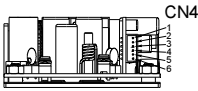
Pin	Function
1	ACL
2	-
3	ACN

CN4:
PIN CONNECTION

Pin	Function
1	FAN Output-
2	FAN Output+
3	GND
4	+5VSB
5	GND
6	PS-ON

CN5:
PIN CONNECTION

Pin	Function
1	GND
2	PG
3	-Sense
4	+Sense



All Dimensions in Inches[mm]
Tolerance Inches:x.xxx±0.02
Millimeters:x.xx±0.5

Specifications are subject to change without notice, E&OE. ALL PSU Terms & Conditions apply.
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Typical at 25°C, 230Vac and 60% rated load, unless otherwise Specified