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300W Open Frame type Medical power supply > CFM300M



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 IEC/EN 60335-1
- * 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

For covered versions add "C" to model number or order part no. For example CFM300M120C



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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 ±0.05%/°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≤2V (note 12)
 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 Frequency60~80KHz typ. @ Full Load
 MTBFMIL-HDBK-217F, GB, 25°C/115VAC 160Khrs.typ.
 Dimensions
 Open frame versions 5.000x3.000x1.421 Inches (127.00x76.20x36.1mm)
 -C covered versions..... 5.355x3.425x1.591 Inches (136.00x87.00x40.40mm)
 Weight
 Open frame versions 420g (0.925 Pounds)
 -C covered versions 550g (1.21 Pounds)

SAFETY AND EMC:

Emission and Immunity (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
 IEN60601-1:2006+A11:2011+A1+A12, UL ANSI/AAMI ES60601-1

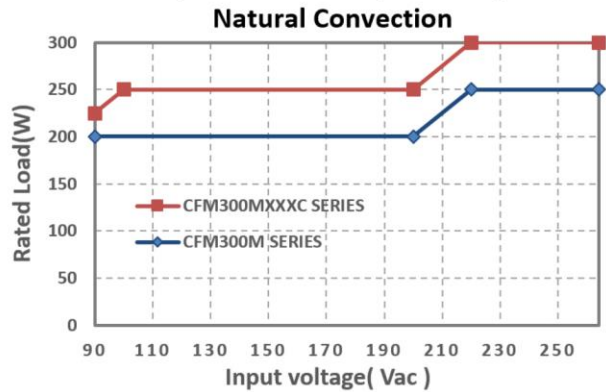
NOTE:

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.

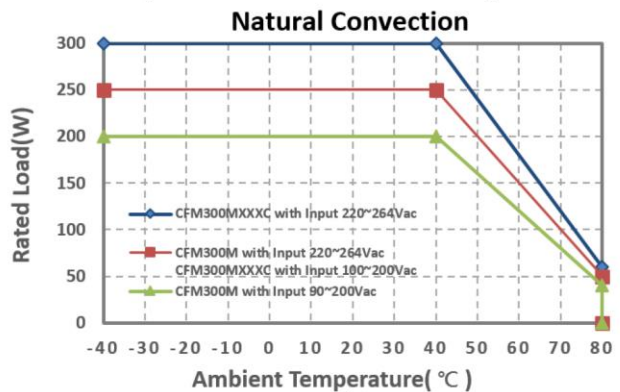
CFM300M Series De-rating Curve

CFM300M Series

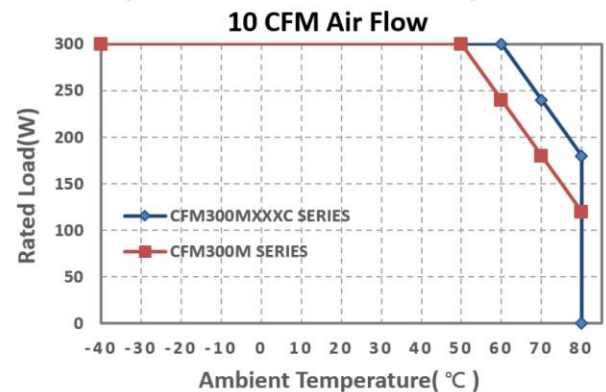
Output Power vs. Input Voltage



Output Power vs. Ambient Temperature



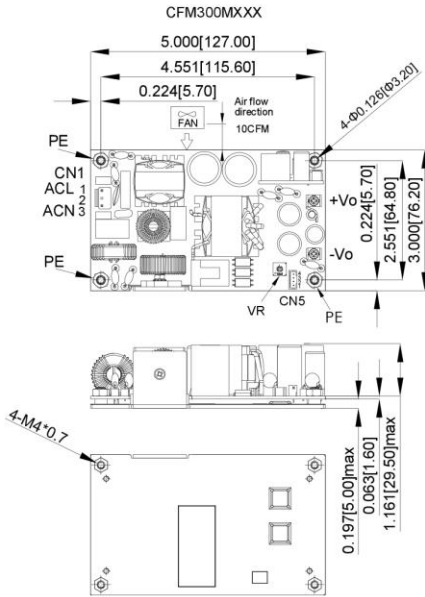
Output Power vs. Ambient Temperature





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Mechanical Specification



CN1:
PIN CONNECTION

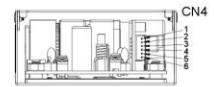
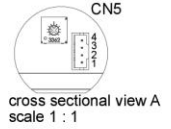
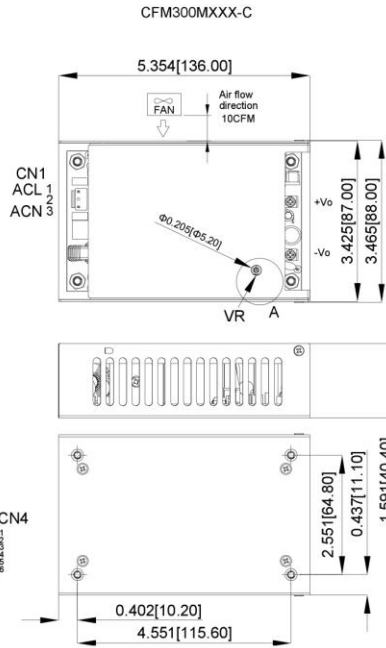
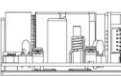
Pin	Function
1	ACL
2	-
3	ACN

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