CFM300S SERIES

300 WATT AC-DC POWER SUPPLY WITH PFC

Features

* Universal Input Range 90 ~ 264Vac
* Active PFC Meets EN61000-3-2 Class C&D
* High Efficiency up to 94%
* High Power Density up to 14.1W/Inch^3
* Meets EN55032 and EN55022 Class B
* 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

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									
CFM300S120	+12 V	25A	16.67A	120mV	± 1%	± 0.5%	11.4~12.6	± 1%	92.5%
CFM300S240	+24 V	12.5A	8.34A	150mV	± 1%	± 0.5%	22.8~25.2	± 1%	93.5%
CFM300S360	+36 V	8.34A	5.56A	150mV	± 1%	± 0.5%	34.2~37.8	± 1%	93.5%
CFM300S480	+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 CFM300S120C

Typical at 25℃, 230Vac and 60% rated load, unless otherwise specified

Specifications

INPUT SPECIFICATIONS:

AC Input Voltage ..... 90~264Vac
Input current ..... 100Vac/4A max., 240Vac/1.8A max.
Frequency ..... 47 to 63Hz
Inrush Current ..... Cold start@25℃ 30A max. @240Vac
Leakage Current ..... 260uA typ., 3.5mA max.

OUTPUT SPECIFICATIONS:

Isolation ..... Input to Output = 3000VAC.
Hold-up Time ..... 20ms typ. @115Vac
Over Voltage Protection ..... Latch off
Short Circuit Protection ..... Hiccup mode(Auto Recovery)
Temperature Coefficient ..... ±0.05%/℃

GENERAL SPECIFICATIONS:

Operating Temperature ..... -40~80℃ (see derating curve)
Storage Temperature ..... -40~85℃
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 5000m
Cooling ..... Natural convection for 200W~250w(see derating curve)
forced air flow convection(10CFM) for 300W
Switching Frequency ..... 60~80KHz typ. @ Full load
MTBF ..... MIL-HDBK-217F, GB, 25℃/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:

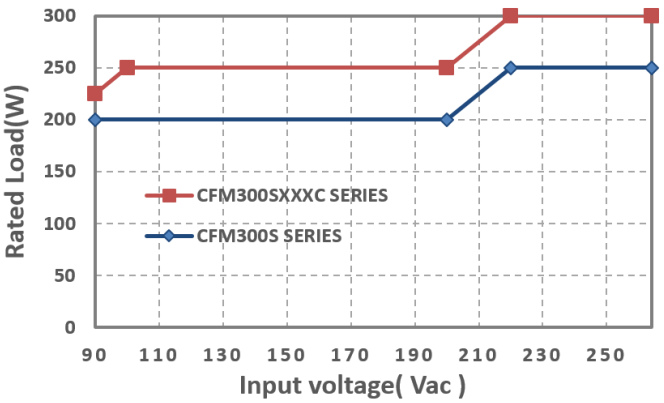
Emission and Immunity ..... EN55032,EN55024 Class B
EN61000-3-2, EN61000-3-3, FCC CFR 47 Part 15 Subpart B
IEC61000-2, IEC61000-3, IEC61000-4, IEC61000-5
IEC61000-6, IEC61000-8, IEC61000-11
Safety ..... Class I, IEC60950-1, EN60950-1, UL60950-1 2nd edition

NOTE:

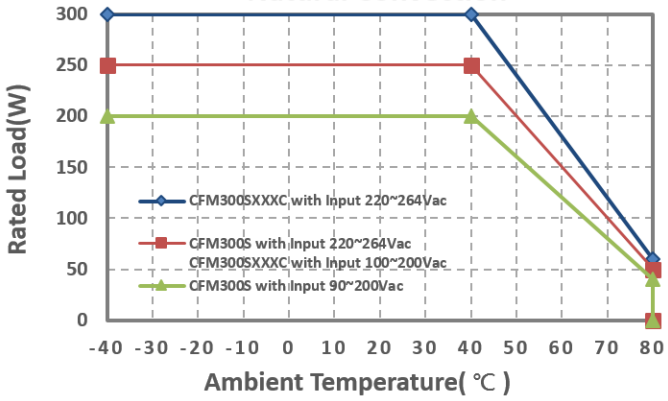
1. Add a 0.1uF ceramic capacitor and a 10uF E.L. capacitor to output for ripple &noise measuring @20MHz BW.
2. Voltage accuracy is set at 100% rated load and 25℃.Ta.
3. Line regulation is measured from High Line to Low Line with rated load.
4. Load regulation is measured from Full to 10% load.
5. Typical 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.

CFM300S Series De-rating Curve

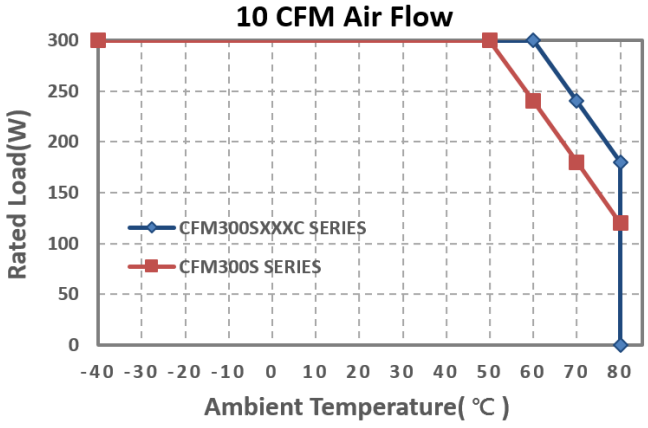
Output Power vs. Input Voltage
Natural Convection



Output Power vs. Ambient Temperature
Natural Convection



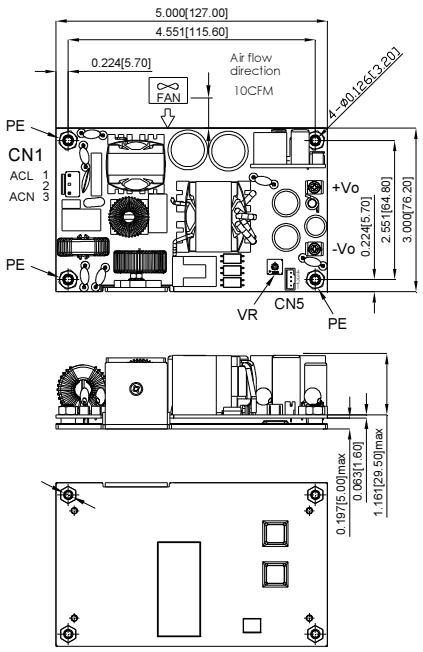
Output Power vs. Ambient Temperature
10 CFM Air Flow



Mechanical Specification

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

CFM300SXXX



CN1:
PIN CONNECTION

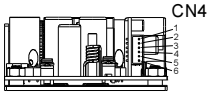
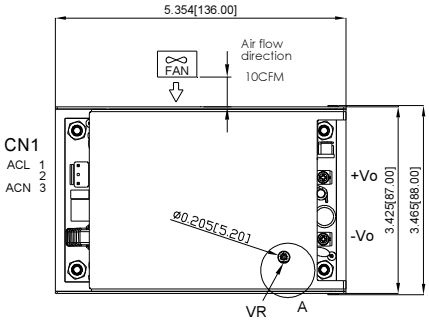
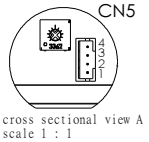
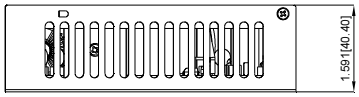
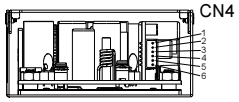
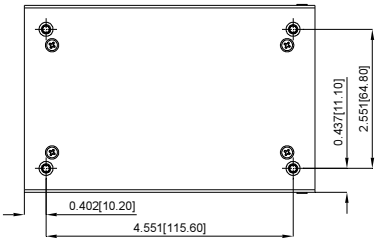
Pin	Function
1	ACL
2	-
3	ACN

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



CFM300SXXX-C