CFM60M SERIES

60W MEDICAL OPEN FRAME AC-DC MODULES



Features

* Universal Input Range 90~264VAC
* 2”x 4” Size
* Efficiency to 90%
* Continuous Short Circuit Protection
* No Load Power Consumption<0.5W
* Meets EN55011 and EN55032 Class B
* IEC/EN/UL 60601-1 2MOPP Approval
* IEC/EN/UL 60950-1 Approval
* Meets IEC/EN60335-1
* Meets Class I

MODEL	OUTPUT VOLTAGE	OUTPUT CURRETN	RIPPLE & NOISE NOTE 2	VOLTAGE ACCURACY NOTE 1	VOLTAGE ADJ. Range	LINE REGULATION NOTE 3	LOAD REGULATION NOTE 4	% EFF (Typ.) NOTE5
CFM60M050	5 V	8 A	1%	±1%	4.75~5.25	±0.5%	±1%	82%
CFM60M120	12 V	5 A	1%	±1%	11.4~12.6	±0.5%	±1%	87%
CFM60M150	15 V	4 A	1%	±1%	14.25~15.75	±0.5%	±1%	88%
CFM60M240	24 V	2.5 A	1%	±1%	22.8~25.2	±0.5%	±1%	89%
CFM60M480	48 V	1.25 A	1%	±1%	45.6~50.4	±0.5%	±1%	90%

Specifications are subject to change without notice.

Specifications

INPUT SPECIFICATIONS:

Voltage ..... 90~264Vac
120~370Vdc
Frequency ..... 47 to 63Hz
Inrush Current ..... Cold Start@25℃ ..... 75A max. @240Vac
Input Current ..... 100Vac/1.6A max., 240Vac/0.8Amax.
Leakage Current ..... 100uA max.

OUTPUT SPECIFICATIONS:

Hold-up Time ..... 16ms typ. @115Vac
Short Circuit Protection ..... Hiccup Mode (Auto Recover)
Over Voltage Protection ..... TVS Component to Clamp
Temperature Coefficient ..... ±0.05%/℃

GENERAL SPECIFICATIONS:

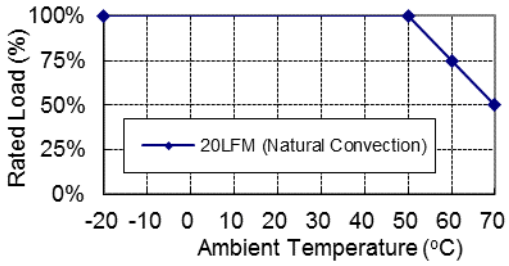
Isolation ..... Input to output = 4000VAC (5,656VDC)
Operating Temperature (note 9) ..... -20 ~ 70℃ (see Derating Curve)
Storage Temperature ..... -20~85℃
Humidity ..... 93% RH max. Non-Condensing
Cooling ..... Natural Convection
Switching Frequency ..... 65KHz Typical
MTBF ..... MIL-HDBK-217F, GB, 25℃/115VAC ..... 200Khrs min.
Altitude 3000m
Dimensions 4.000x2.000x1.100inches (101.60x50.80x27.94mm)
CFM60MXXX-CA 4.606x2.362x1.575inches (117.00x50.80x40.00mm)
Weight 125g

SAFETY AND EMC:

Emission and Immunity (Ed. 4.0) ..... EN55011, EN55032 Class B, EN55024
FCC CFR 47 Part 15, 18, EN61204-3, EN61000-6-1
EN61000-6-3, EN60601-1-2, EN61000-3-2, EN61000-3-3
Safety (Ed. 3.1) .... Class I, IEC60601-1:2005+A1:2012, EN60601-1:2006/A1:2003
UL ANSI/AAMI ES60601-1:2005, IEC60950-1, EN60950-1, UL60950-1

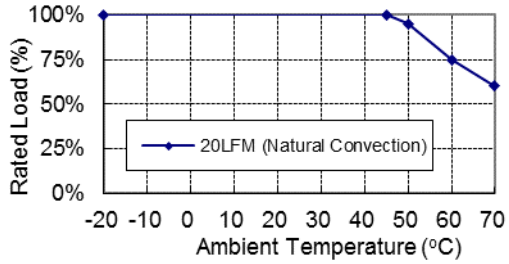
CFM60M Series Derating Curve

Open Frame versions:



Covered versions:

CFM60M050-CA

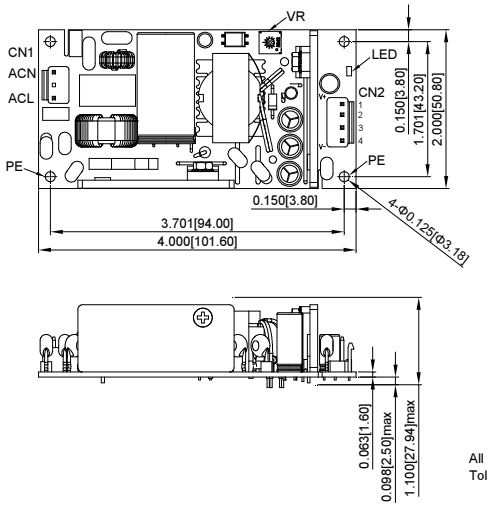


NOTE:

1. Voltage accuracy is set at full load and 25℃ Ta.
2. Add a 0.1uF ceramic capacitor and a 10uF E.L. capacitor to output for ripple&noise measuring @20MHz BW.
3. Line regulation is measured from 100Vac to 240Vac with full load.
4. Load regulation is measured from 10% to 100% full load.
5. Typical Efficiency at 230 VAC and Full Load at 25°C
6. Standard input and output connectors (CN1 and CN2) wafer with TAIWAN KING PIN TERMINAL PVHI series and mate with JST housing VHR series and JST SVH-21/41T-P1.1 series crimp terminal or Equivalent.
7. Optional Input and output connectors (CN1 and CN2) wafer with LONG CHU P3060 series and mate with MOLEX housing 5195 series and MOLEX 5194 series crimp terminal or equivalent.
8. Safety approvals do not apply to the covered versions, only to the open frame versions.
9. Others model refer to application note.

Mechanical Specification

CFM60MXXX

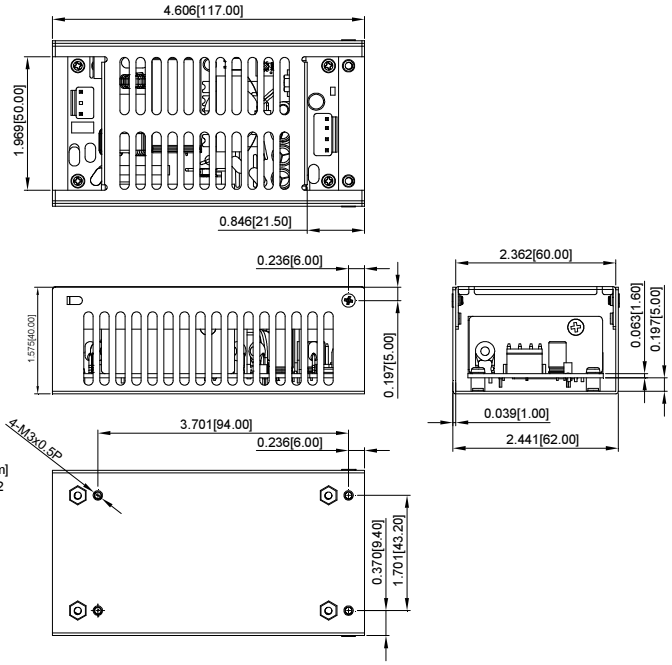


Input connector CN1	
Pin 1	Line
Pin 2	Not Fitted
Pin 3	Neutral

Output connector CN2	
Pin 1	+ Vout
Pin 2	+ Vout
Pin 3	- Vout
Pin 4	- Vout

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

CFM60MXXX-CA



Typical at 25°C, nominal line and 75% load, unless otherwise Specified