



# CFM100M SERIES

## 100W MEDICAL&ITE OPEN FRAME AC-DC MODULES WITH PFC



### Features

- \* Universal Input Range 90 ~ 264VAC
- \* Medical and ITE Safeties
- \* 3"x 5" Compact Size
- \* Less than 1 U high
- \* Industry Standard Pin Out
- \* Active PFC Meets EN61000-3-2
- \* High Efficiency up to 91%
- \* Meets CISPR/FCC Class B
- \* Remote Voltage Sense
- \* Over Voltage Protection
- \* Continuous Short Circuit Protection
- \* No load Power Consumption<0.5W



| MODEL      | OUTPUT VOLTAGE | MAX. LOAD | MIN. LOAD | RIPPLE & NOISE | VOLTAGE ADJ. RANGE | VOLTAGE ACCURACY | LINE REGULATION | LOAD REGULATION | % EFF. (Typ.) |
|------------|----------------|-----------|-----------|----------------|--------------------|------------------|-----------------|-----------------|---------------|
| CFM100M050 | 5V             | 20A       | 0A        | 2%             | 4.75~5.25          | ±1%              | ±0.5%           | ±1%             | 83%           |
| CFM100M075 | 7.5V           | 13.4A     | 0A        | 2%             | 7.13~7.88          | ±1%              | ±0.5%           | ±1%             | 87%           |
| CFM100M090 | 9V             | 11.2A     | 0A        | 1%             | 8.55~9.45          | ±1%              | ±0.5%           | ±1%             | 88%           |
| CFM100M120 | 12V            | 8.4A      | 0A        | 1%             | 11.4~12.6          | ±1%              | ±0.5%           | ±1%             | 89%           |
| CFM100M150 | 15V            | 6.7A      | 0A        | 1%             | 14.25~15.75        | ±1%              | ±0.5%           | ±1%             | 89%           |
| CFM100M180 | 18V            | 5.6A      | 0A        | 1%             | 17.1~18.9          | ±1%              | ±0.5%           | ±1%             | 90%           |
| CFM100M240 | 24V            | 4.2A      | 0A        | 1%             | 22.8~25.2          | ±1%              | ±0.5%           | ±1%             | 91%           |
| CFM100M280 | 28V            | 3.6A      | 0A        | 1%             | 26.6~29.4          | ±1%              | ±0.5%           | ±1%             | 91%           |
| CFM100M360 | 36V            | 2.8A      | 0A        | 1%             | 34.2~37.8          | ±1%              | ±0.5%           | ±1%             | 91%           |
| CFM100M480 | 48V            | 2.1A      | 0A        | 1%             | 45.6~50.4          | ±1%              | ±0.5%           | ±1%             | 91%           |

## Specifications

### INPUT SPECIFICATIONS:

|                       |                  |
|-----------------------|------------------|
| Voltage .....         | 90~264Vac        |
| Frequency .....       | 47 to 63Hz       |
| Inrush Current .....  | 80A max. @240Vac |
| Leakage Current ..... | 300uA max.       |

### OUTPUT SPECIFICATIONS:

|                                |                             |
|--------------------------------|-----------------------------|
| Holdup Time .....              | 16ms typ.                   |
| Short Circuit Protection ..... | Hiccup mode(Auto Recovery)  |
| Adjustment Range on Vout.....  | ±5%                         |
| Over Voltage Protection .....  | Recycle AC input to restart |
| Temperature Coefficient .....  | ±0.05%/°C                   |

### GENERAL SPECIFICATIONS:

|                             |                                                    |
|-----------------------------|----------------------------------------------------|
| Isolation .....             | Input to output = 5,656VDC                         |
| Operating Temperature ..... | -20°C ~ 70°C (see Derating Curve)                  |
| Storage Temperature .....   | -20 ~ 85°C                                         |
| Humidity .....              | 93% RH max. Non condensing                         |
| Cooling .....               | Natural Convection                                 |
| Switching Frequency .....   | 90KHz Typical                                      |
| MTBF .....                  | MIL-HDBK-217F, GB, 25°C/115VAC ..... 200K hrs min. |
| Altitude .....              | 3000m                                              |
| Dimensions .....            | 5.000x3.000x1.050inches (127.00x76.20x26.67mm)     |
| Weight .....                | 270g (0.6Pounds)                                   |

## SAFETY AND EMC:

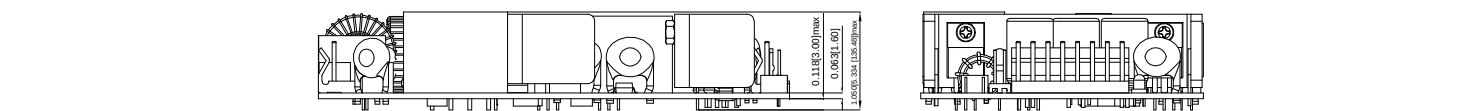
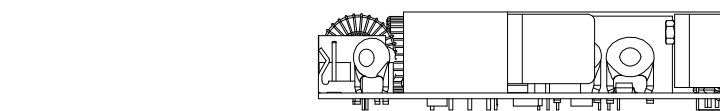
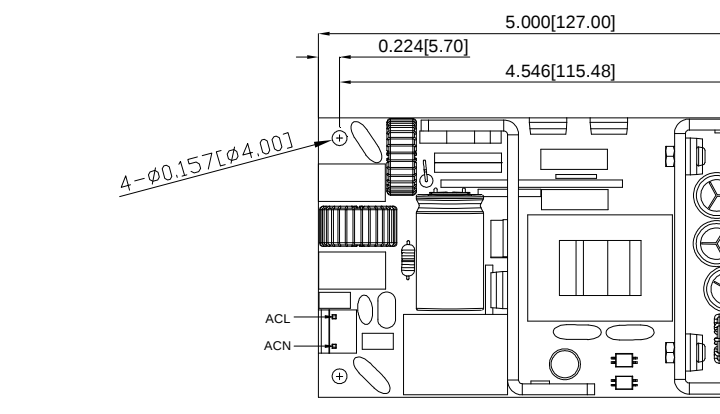
Emission and Immunity ..... EN55024, EN61000-6-1, EN61204-3  
EN60601-1-2, EN61000-3-2 Class A, B, C, D, EN61000-3-3  
EN55011 Class B, EN55022 Class B, FCC Part15 Class B  
Safety ..... IEC60601-1, EN60601-1, UL60601-1  
IEC60950-1, EN60950-1, UL60950-1

## CFM100M Series

All Dimensions are in inches[mm]

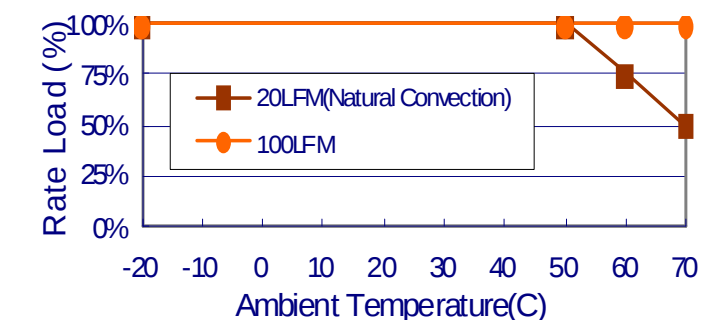
Tolerance:      Inches:x.xxx=  $\pm 0.02$

Millimeters: x.xx=  $\pm 0.5$



### CFM100M Series Derating Curve

## CFM100M



**NOTE:**

1. CFM100M050: Add a 0.1uF ceramic capacitor and 220uF E.L. capacitor to output for Ripple & Noise measuring @20MHz BW.  
Other Model: Add a 0.1uF ceramic capacitor and a 10uF E.L. capacitor to output for Ripple & Noise measuring @20MHz BW.
2. Line regulation is measured from High Line to Low Line with full load.
3. Load regulation is measured from Full to 10% load.
4. Connectors: AC input: Molex 5277 or equivalent  
DC output: Molex 5273 or equivalent
5. DC output pin 1, 2, 3, 4: Vout (-), DC output pin 5, 6, 7, 8: Vout (+)

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