

# CFM10/15 SERIES 10/15 WATT OPEN FRAME AC-DC MODULES

# **Features**

- \* Universal Input Range 85~264VAC
- \* Efficiency to 83%
- \* Meets EN55032 Class B
- \* Approved IEC/EN/UL62368-1
- \* Continuous Short Circuit Protection
- \* Leakage Current 0.25mA Max.
- \* PCB Mountable





## **CFM10 Series**

| MODEL    | OUTPUT<br>VOLTAGE | OUTPUT<br>CURRENT | RIPPLE &<br>NOISE<br>NOTE 1 | VOLTAGE<br>ACCURACY | LINE<br>REGULATION<br>NOET 2 | LOAD<br>REGULATION<br>NOTE 3 | % EFF.<br>(Typ.)<br>NOTE 4 |
|----------|-------------------|-------------------|-----------------------------|---------------------|------------------------------|------------------------------|----------------------------|
| CFM1001S | 5V                | 2000mA            | 1%                          | ±1%                 | ±0.5%                        | ±1%                          | 73%                        |
| CFM1002S | 12V               | 840mA             | 1%                          | ±1%                 | ±0.5%                        | ±1%                          | 76%                        |
| CFM1003S | 15V               | 670mA             | 1%                          | ±1%                 | ±0.5%                        | ±1%                          | 76%                        |
| CFM1005S | 24V               | 420mA             | 1%                          | ±1%                 | ±0.5%                        | ±1%                          | 77%                        |
| CFM1007S | 3.3V              | 2500mA            | 50mV                        | ±1%                 | ±0.5%                        | ±1%                          | 67%                        |
| CFM1009S | 9V                | 1120mA            | 1%                          | ±1%                 | ±0.5%                        | ±1%                          | 72%                        |

## **CFM15 SERIES**

| OF INTO CERTIES |                   |                   |                             |                     |                              |                        |                           |
|-----------------|-------------------|-------------------|-----------------------------|---------------------|------------------------------|------------------------|---------------------------|
| MODEL           | OUTPUT<br>VOLTAGE | OUTPUT<br>CURRENT | RIPPLE &<br>NOISE<br>NOET 1 | VOLTAGE<br>ACCURACY | LINE<br>REGULATION<br>NOTE 2 | LOAD REGULATION NOTE 3 | %EFF.<br>(Typ.)<br>NOTE 4 |
| CFM1501S        | 5V                | 3000mA            | 1%                          | ±1%                 | ±0.5%                        | ±1%                    | 74%                       |
| CFM1502S        | 12V               | 1250mA            | 1%                          | ±1%                 | ±0.5%                        | ±1%                    | 80%                       |
| CFM1503S        | 15V               | 1000mA            | 1%                          | ±1%                 | ±0.5%                        | ±1%                    | 81%                       |
| CFM1505S        | 24V               | 630mA             | 1%                          | ±1%                 | ±0.5%                        | ±1%                    | 83%                       |
| CFM1507S        | 3.3V              | 3000mA            | 50mV                        | ±1%                 | ±0.5%                        | ±1%                    | 69%                       |
| CFM1509S        | 9V                | 1670mA            | 1%                          | ±1%                 | ±0.5%                        | ±1%                    | 76%                       |

# **Specifications**

## **INPUT SPECIFICATIONS:**

| Voltage               | 85~264Vac                           |
|-----------------------|-------------------------------------|
|                       | 120~370Vdc                          |
| Frequency             | 47 to 63Hz                          |
| Input Current         | 100Vac/0.5A max., 240Vac/0.25A max. |
| Inrush Current Cold S | Start@25°C 20A max. @115Vac         |
|                       | 40A max. @230Vac                    |
| Leakage Current       | 0.25mA max.                         |

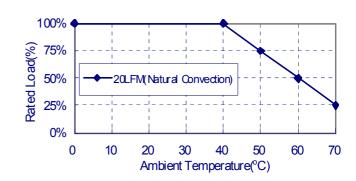
# **OUTPUT SPECIFICATIONS:**

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

#### **GENERAL SPECIFICATIONS:**

| Storage Temperature          | 20~85℃                              |
|------------------------------|-------------------------------------|
| Humidity                     | 93% RH max. Non condensing          |
| Cooling                      | Natural Convection                  |
| Switching Frequency          | CFM10: 100KHz Typical               |
|                              | CFM15: 67KHz Typical                |
| MTBF MIL-HDBK-217F, G        | BB, at 25℃/115VAC 200Khrs min.      |
| Altitude                     | 2000m                               |
| Dimensions CFM10: 2.599x1.77 | 2x0.906Inches (65.00x45.00x23.00mm) |
| CFM15: 2.752x1.89            | 0x0.906Inches (69.90x48.00x23.00mm) |
| Weight                       | CFM10: 60g (0.13Pounds)             |
|                              | CFM15: 80g (0.18Pounds)             |

# **CFM10/15 Series Derating Curve**



## **SAFETY AND EMC:**

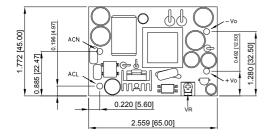
#### NOTE:

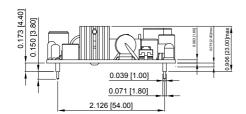
- 1. Add a 0.1uF ceramic capacitor and a 10uF E.L. capacitor to output for Ripple & noise measuring @20MHz BW.
- 2. Line regulation is measured from high line to low line with full load.
- 3. Load regulation is measured from full to 10% load.
- 4. Typical efficiency with 230VAC and max. load 25 $^{\circ}$ C.

# **Mechanical Specification**

All Dimensions are in inches(mm)
Tolerance:Inches:X.XXX±0.02
Millimeters:X.XX±0.5

# CFM10 Series





## CFM15 Series

