Simpex Electronic AG Binzackerstrasse 33 CH-8620 Wetzikon Telefon +41 44 931 10 30

www.simpex.ch contact@simpex.ch CHE-108.018.777 MWST





Features

- \* Universal Input Range 90~264VAC
- \* 2"x 4" Size
- \* Industry Standard Pin Out
- \* Efficiency to 87%
- \* Continuous Short Circuit Protection
- \* Meets EN55032 Class B and CISPR/FCC Class B
- \* Approved IEC/EN/UL62368-1



CFM40/60S SERIES

AC-DC MODULES

40/60 WATT OPEN FRAME

#### **CFM40 Series**

| CI MITO Series |         |         |          |          |            |            |        |
|----------------|---------|---------|----------|----------|------------|------------|--------|
| MODEL          | OUTPUT  | OUTPUT  | RIPPLE & | VOLTAGE  | LINE       | LOAD       | % EFF. |
| MODEL          | VOLTAGE | CURRENT | NOISE    | ACCURACY | REGULATION | REGULATION | (Тур.) |
| CFM40S033      | 3.3 V   | 6 A     | 50mV     | ±1%      | ±0.5%      | ±1%        | 70%    |
| CFM40S050      | 5 V     | 6 A     | 1%       | ±1%      | ±0.5%      | ±1%        | 76%    |
| CFM40S090      | 9 V     | 4.45 A  | 1%       | ±1%      | ±0.5%      | ±1%        | 84%    |
| CFM40S120      | 12 V    | 3.34 A  | 1%       | ±1%      | ±0.5%      | ±1%        | 85%    |
| CFM40S150      | 15 V    | 2.67 A  | 1%       | ±1%      | ±0.5%      | ±1%        | 85%    |
| CFM40S240      | 24 V    | 1.67 A  | 1%       | ±1%      | ±0.5%      | ±1%        | 85%    |
| CFM40S300      | 30 V    | 1.33 A  | 1%       | ±1%      | ±0.5%      | ±1%        | 86%    |
| CFM40S360      | 36 V    | 1.11 A  | 1%       | ±1%      | ±0.5%      | ±1%        | 87%    |
| CFM40S480      | 48 V    | 0.834 A | 1%       | ±1%      | ±0.5%      | ±1%        | 87%    |

### **CFM60 Series**

| MODEL     | OUTPUT  | OUTPUT  | <b>RIPPLE &amp;</b> | VOLTAGE  | LINE       | LOAD       | % EFF. |
|-----------|---------|---------|---------------------|----------|------------|------------|--------|
| MODEL     | VOLTAGE | CURRENT | NOISE               | ACCURACY | REGULATION | REGULATION | (Тур.) |
| CFM60S033 | 3.3 V   | 8 A     | 50mV                | ±1%      | ±0.5%      | ±1%        | 72%    |
| CFM60S050 | 5 V     | 8 A     | 1%                  | ±1%      | ±0.5%      | ±1%        | 77%    |
| CFM60S090 | 9 V     | 6.67 A  | 1%                  | ±1%      | ±0.5%      | ±1%        | 84%    |
| CFM60S120 | 12 V    | 5 A     | 1%                  | ±1%      | ±0.5%      | ±1%        | 85%    |
| CFM60S150 | 15 V    | 4 A     | 1%                  | ±1%      | ±0.5%      | ±1%        | 86%    |
| CFM60S240 | 24 V    | 2.5 A   | 1%                  | ±1%      | ±0.5%      | ±1%        | 86%    |
| CFM60S300 | 30 V    | 2 A     | 1%                  | ±1%      | ±0.5%      | ±1%        | 86%    |
| CFM60S360 | 36 V    | 1.67 A  | 1%                  | ±1%      | ±0.5%      | ±1%        | 88%    |
| CFM60S480 | 48 V    | 1.25 A  | 1%                  | ±1%      | ±0.5%      | ±1%        | 88%    |

V15

# **Specifications**

#### INPUT SPECIFICATIONS:

| Voltage         |                                    |
|-----------------|------------------------------------|
|                 | 120~370Vdc                         |
| Frequency       |                                    |
| Inrush Current  | . Cold Start@25°C 50A max. @240Vac |
| Leakage Current | 1mA Typical                        |

#### **OUTPUT SPECIFICATIONS:**

| Holdup Time              | 8ms typ. @115Vac           |
|--------------------------|----------------------------|
| Short Circuit Protection | Hiccup Mode (Auto Recover) |
| Over Voltage Protection  | TVS Component to Clamp     |
| Temperature Coefficient  | <b>±0.05%/</b> ℃           |

#### **GENERAL SPECIFICATIONS:**

| Isolation             | Input to Output = 4,242VDC                 |
|-----------------------|--|
| Operating Temperature | $0 \sim 70^{\circ}$ C (see Derating Curve) |
| Storage Temperature   | 20~85℃                                     |
| Humidity              |  |
| Cooling               | Natural Convection                         |
| Switching Frequency   | 66KHz Typical                              |
| MTBF MIL-HD           | BK-217F, GB, 25℃/115VAC 200Khrs min.       |
| Altitude              | 2000m                                      |
| Dimensions:           |  |
| Open Frame 4.000x     | 2.000x1.200Inches (101.60x50.80x30.48mm)   |
| -P 4.000x             | 2.000x1.275Inches (101.60x50.80x32.38mm)   |
| Covered 4.606x2       | .441x1.5750Inches (117.00x62.00x40.00mm)   |
| Weight                | CFM40/60: 170g/175g (0.38/0.39 Pounds)     |

CFM40/60 Covered: 210g/215g (0.46/0.47 Pounds)

# SAFETY AND EMC:

| Emission and Immunity | EN55032 Class B, FCC Part 15 Class B  |
|-----------------------|---------------------------------------|
|                       | EN61000-6-3, EN61000-3-2, EN61000-3-3 |
|                       | EN55024, EN61204-3, EN61000-6-1       |
| Safety                | IEC/EN/UL62368-1, IEC/EN/UL60950-1    |

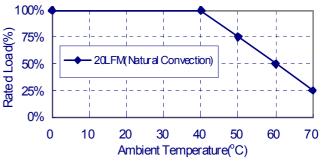
#### NOTE:

- 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. Input connector mates with Molex housing 09-50-3031 and Molex 2878 series crimp terminal.
- 5. Output connector mates with Molex housing 09-50-3041 and Molex 2878 series crimp terminal.
- 6. Safety approvals do not apply to the covered versions, only to the openframe versions.

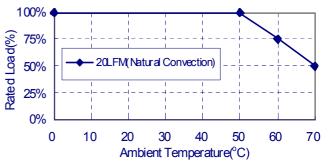
# CFM40/60S Series Derating Curve

#### **Open Frame versions:**

CFM40S033, 40S050, 40S090, 60S033, 60S050, 60S090

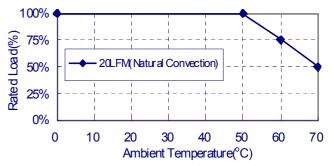


CFM40S120, 40S150, 40S240, 40S300, 40S360, 40S480 CFM60S120, 60S150, 60S240, 60S300, 60S360, 60S480

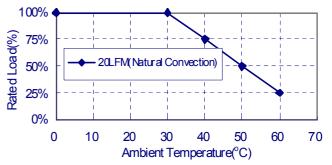


#### Covered versions: CFM40/60XXX-CA

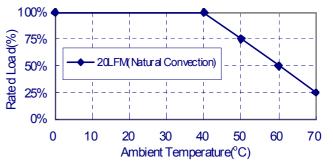
CFM40S120, 40S150, 40S240, 40S300, 40S360, 40S480



#### CFM40S033, CFM40S050, CFM60S033, CFM60S050



CFM40S090, 60S090, 60S120, 60S150, 60S240, 60S300 CFM60S360, 60S480



# Mechanical Specification

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

0.246 [6.25]

0

0.071 [

0.150 [3.80

4-00-125103

0.17 [4.40]

M

CFM40SXXX-P/CFM60SXXX-P (Input and Output connector with PIN)

0.150 [3.80]

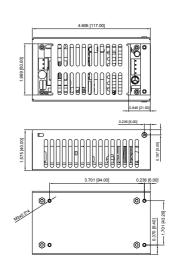
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400 125 103

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CFM40SXXX/CFM60SXXX



CFM40SXXX/CFM60SXXX-CA

