

## CFM-60S Series

60W Open Frame  
AC/DC Modules



### Features

- Universal input range 85 – 264Vac
- Efficiency up to 88%
- Continuous short circuit protection
- Over voltage protection
- Safety IEC62368-1, UL62368-1, EN62368-1 registered
- Meets EN55032 Class B and CIRSS/FCC Class B
- Operating altitude 2000m
- Size 2" x 4"



MODEL	Output Voltage	Max. Load	Ripple & Noise	Voltage Accuracy	Line Reg.	Load Reg.	% EFF. (Typ.)
CFM-60S033	3.3V	8A	50mV	±1%	±0.5%	±1%	72%
CFM-60S050	5V	8A	50mV	±1%	±0.5%	±1%	77%
CFM-60S090	9V	6.67A	90mV	±1%	±0.5%	±1%	84%
CFM-60S120	12V	5A	120mV	±1%	±0.5%	±1%	85%
CFM-60S150	15V	4A	150mV	±1%	±0.5%	±1%	86%
CFM-60S240	24V	2.5A	240mV	±1%	±0.5%	±1%	86%
CFM-60S300	30V	2A	300mV	±1%	±0.5%	±1%	86%
CFM-60S360	36V	1.67A	360mV	±1%	±0.5%	±1%	88%
CFM-60S480	48V	1.25A	480mV	±1%	±0.5%	±1%	88%

## Ordering

CFM-60Sxxx- X

Blank: Chassis mount  
P: PCB mount  
C: With cover

## Specifications

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

### Input Specifications:

Input voltage range ..... 90 – 264Vac  
..... 120 – 370Vdc  
Operating voltage range ..... 100 – 240Vac  
Frequency ..... 47 to 63Hz  
Input current ..... 100Vac ..... 1.4A max.  
Inrush current ..... 240Vac, cold start ..... 65A max.  
Leakage current ..... 1mA max.

### Output Specifications:

Voltage accuracy ..... see product table  
Load regulation ..... ±1.0%  
Line regulation ..... ±0.5%  
Holdup time ..... 115V ..... 8ms typ.  
Over current protection ..... 110% - 180%  
Short circuit protection ..... hiccup mode (auto recovery)  
Over voltage protection ..... TVS Clamp

### General Specifications:

Operating temperature, see derating curve ..... -30°C – 70°C  
Storage temperature ..... -40°C – 85°C  
Humidity ..... 93% RH max. non condensing  
Cooling ..... natural convection  
Switching frequency ..... 66kHz typical  
Operating altitude ..... 2000m  
MTBF ..... MIL-HDBK-217F, GB, 25°C ..... 200k hrs min.

### Isolation

Input to output ..... 3'000Vac  
Isolation resistance ..... 100MΩ

### Mechanical Characteristics:

Dimensions ..... open frame ..... 50.8 x 101.6 x 30.5mm  
..... -P ..... 50.8 x 101.6 x 32.4mm  
..... -C ..... 63.0 x 117.0 x 40.0mm  
Weight ..... 170g  
..... -P ..... 168g  
..... -C ..... 230g

### Safety

..... Class I  
..... IEC62368-1, EN62368-1UL62368-1 Ed 3.0

### EMC:

Emission ..... EN55032+A11:2020 Class B  
..... FCC CFR 47 Part 15 Subpart B  
..... EN 61204-3:2018  
..... EN 61000-6-3:2007+A1:2011+AC:2012  
..... IEC61000-3-2:2019, IEC61000-3-3:2013+A1 :2019

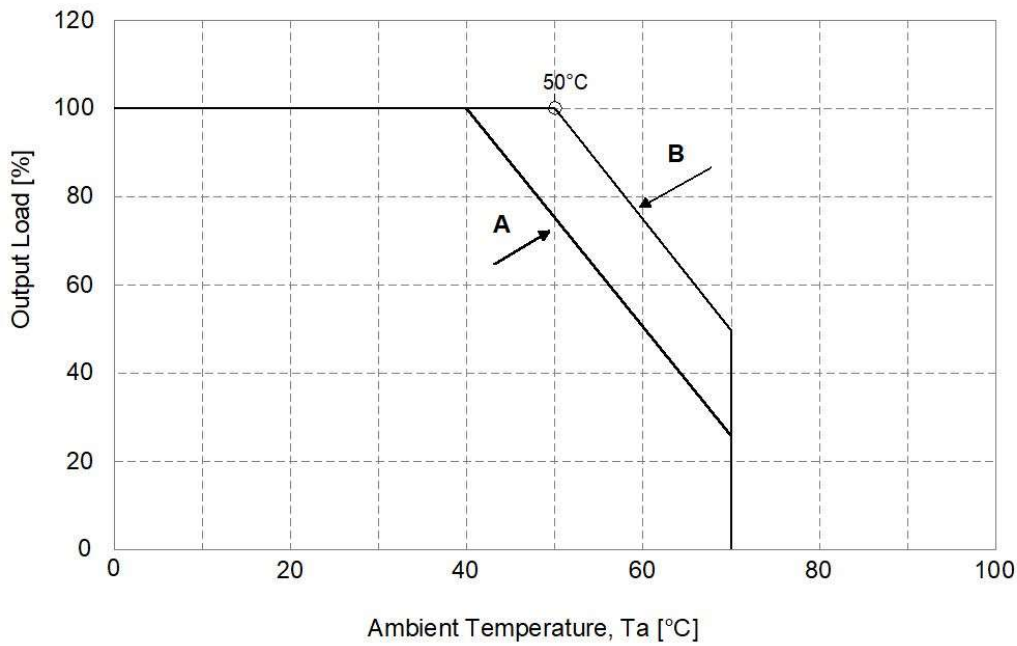
Immunity ..... EN 55035: 2017  
..... EN 61204-3:2018  
..... IEC61000-4-2, 3, 4, 5, 6, 8, 11

### NOTE:

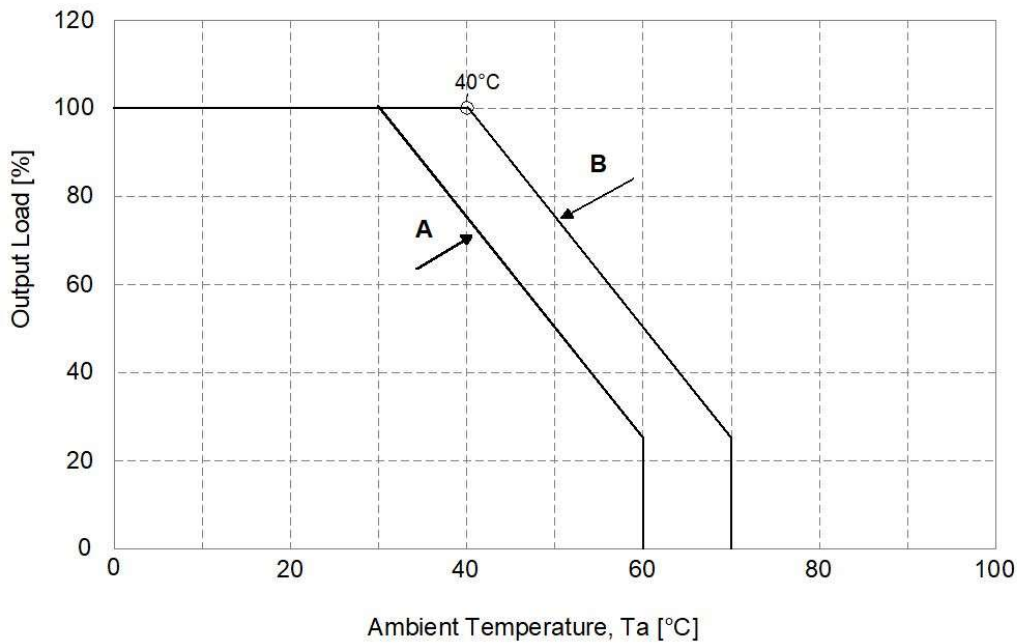
1. Add a 0.1uF ceramic capacitor and a 10uF E.L. capacitor to output for ripple & noise measuring @20MHz BW.
2. Voltage accuracy is set at 100% rated load.
3. Line regulation is measured from High Line to Low Line with full load.
4. Load regulation is measured from 100% to 10% load.
5. Typical efficiency at 230 Vac and full load at 25°C.
6. Input connector mates with Molex housing 09-50-3031 and Molex 2878 series crimp terminal
7. Output connector mates with Molex housing 09-50-3041 and Molex 2878 series crimp terminal.
8. Safety registering do not apply to the covered versions, only to the open frame versions.

# CFM-60S Series Derating Curves

## Open frame versions:



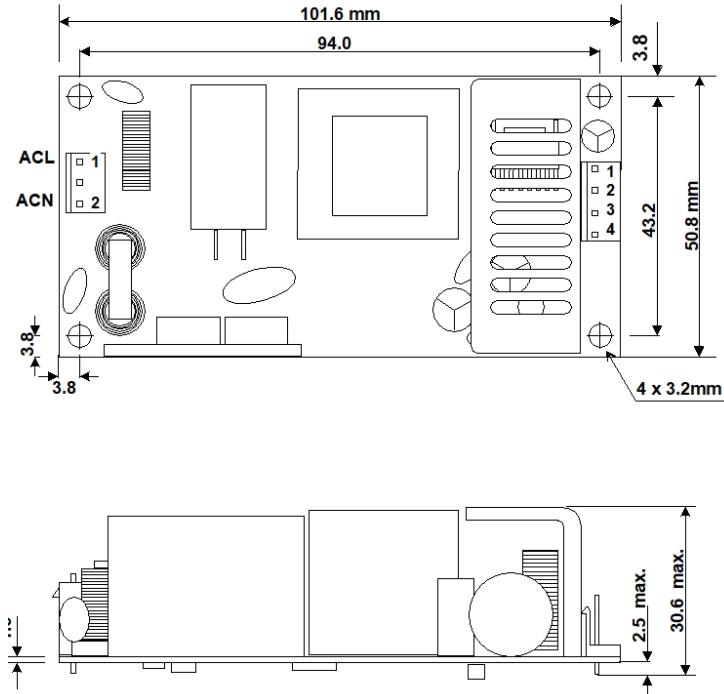
## Covered versions:



# CFM-60S Series Dimensions

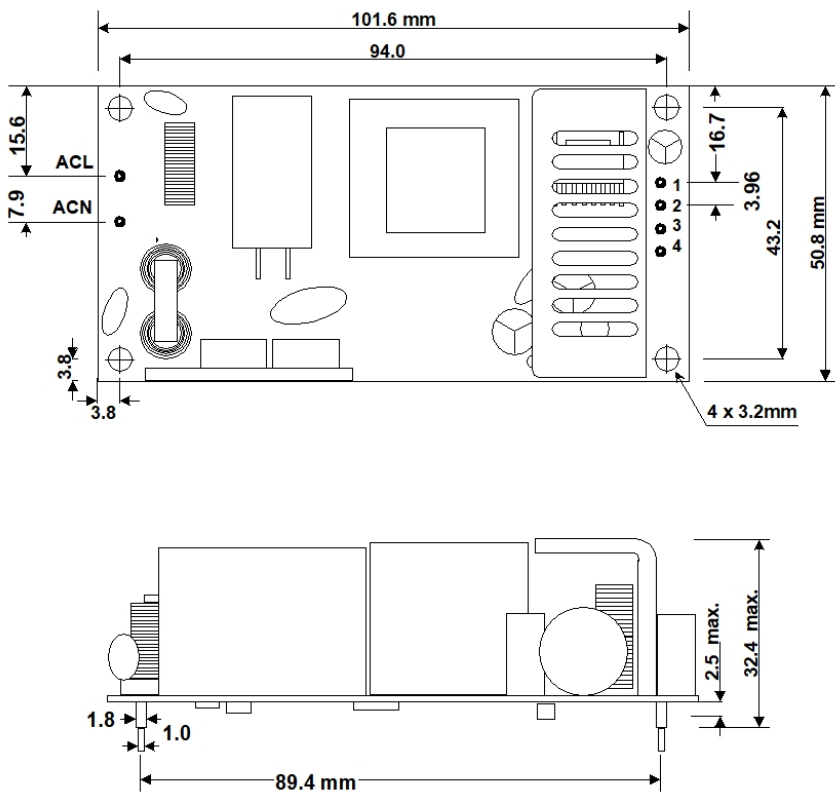
All Dimensions in mm

## Blank



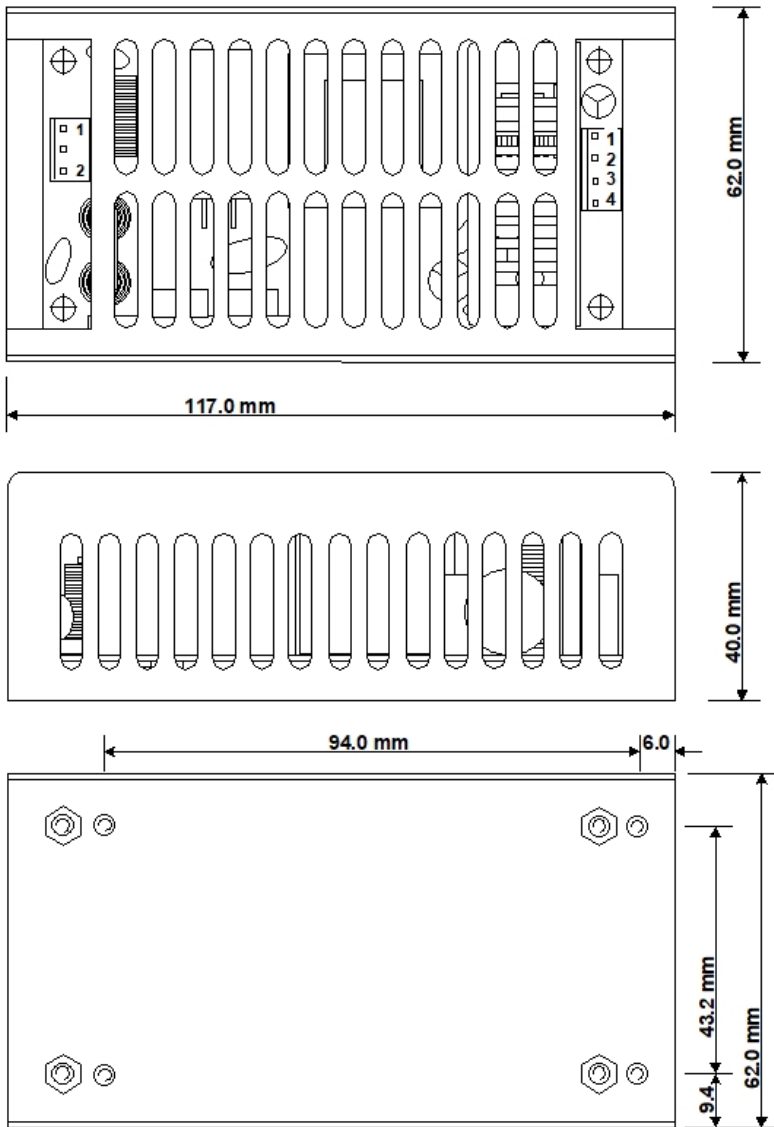
Input	
1	ACN
2	ACL
Output	
1	+Vout
2	+Vout
3	-Vout
4	-Vout

## Option -P



# CFM-60S Series Dimensions

## Option -C



Input	
1	ACN
2	ACL
Output	
1	+Vout
2	+Vout
3	-Vout
4	-Vout

Notice: All statements, technical information, and recommendations related to FABRIMEX's products are based on information believed to be reliable, but the accuracy or completeness thereof is not guaranteed. Before utilizing the product, the user should determine the suitability of the product for its intended use. Specifications can be changed any time without notice.

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