



# CFM12S SERIES

## 12 WATT SINGLE OUTPUT AC-DC OPEN FRAME



### Features

- \* Universal Input 90~264VAC
- \* High Efficiency up to 87%
- \* Continuous Short Circuit Protection
- \* Over Voltage Protection
- \* No Load Input Power < 75mW
- \* Approved EN55032 Class B and CISPR/FCC Class B
- \* IEC/EN/UL 62368-1 Approval
- \* Meets IEC/EN 60335-1
- \* Class II



### Ordering information

CFM12SXXX - X

Blank: PCB mount

E: Encapsulated

T: WAFER

MODEL	Output Voltage	Output Current	Ripple (mV p-p) NOTE 1	Voltage Accuracy NOTE 2	Line Regulation NOTE 3	Load Regulation NOTE 4	% EFF. (typ.) NOTE 5
CFM12S050	5V	2A	100mV	±2%	±1%	±1%	80%
CFM12S090	9V	1.34A	100mV	±2%	±1%	±1%	85%
CFM12S120	12V	1.0A	120mV	±2%	±1%	±1%	85%
CFM12S150	15V	0.8A	150mV	±2%	±1%	±1%	85%
CFM12S240	24V	0.5A	240mV	±2%	±1%	±1%	87%

## Specifications

### INPUT SPECIFICATIONS:

Voltage ..... 90~264Vac  
 ..... 120~370Vdc  
 Frequency ..... 47 to 63Hz  
 Inrush Current ..... 50A max. @240Vac, Cold Start @25°C  
 Leakage Current ..... 0.25mA max. @ 264Vac  
 Input Current ..... 0.4A max.

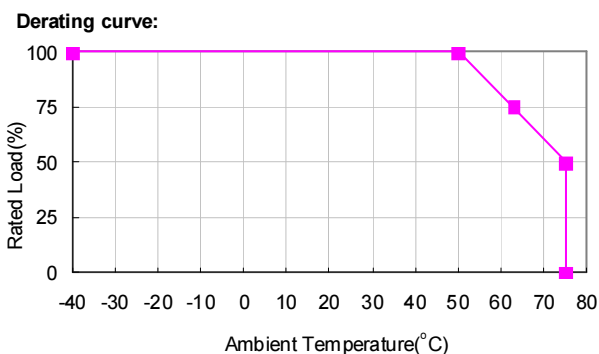
### OUTPUT SPECIFICATIONS:

Holdup Time ..... 10ms typ. @115Vac  
 Short Circuit Protection .....Hiccup Mode (Auto Recovery)  
 Temperature Coefficient ..... ±0.05% / °C  
 Over Voltage Protection .....Hiccup Mode(Auto Recovery)  
 Startup time ..... <3.0s

### GENERAL SPECIFICATIONS:

Isolation Voltage(Input to Output) ..... 3000VAC:  
 Operating Temperature..... -40°C~75°C (Derating from 50°C to 75°C)  
 Storage Temperature ..... -40°C~85°C  
 Cooling ..... Natural Convection  
 Humidity ..... 93% RH max. Non condensing  
 Switching Frequency ..... 65KHz Typical  
 MTBF ..... MIL-HDBK-217F, GB, 25°C/115VAC ..... 870Khrs max.  
 Altitude ..... 5000m  
 Dimensions ..... 1.500x1.000x0.756 Inches (38.10x25.40x19.20mm)  
 -E: 1.600x1.1x0.772 Inches (40.64x27.94x19.60 mm)  
 -T: 2.150x1.000x0.689 Inches (54.61x25.40x17.50 mm)  
 Weight ..... 16g, (-E): 40g, (-T): 17g

## CFM12S Series De-rating Curve



### SAFETY AND EMISSION:

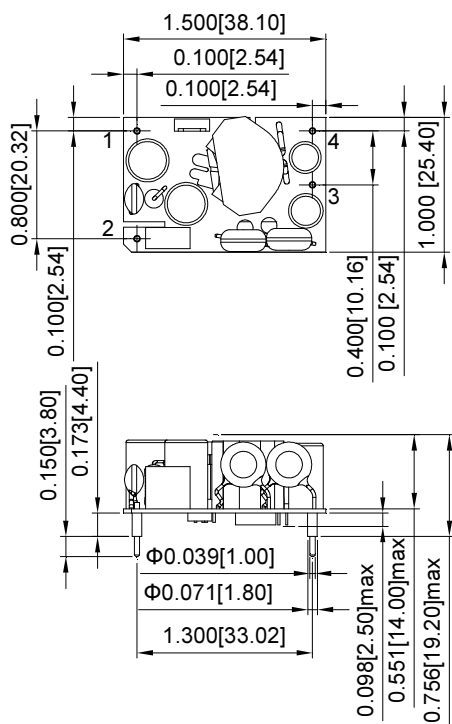
Emission and Immunity..... EN55032 Class B, EN55024, EN61204-3  
 EN61000-3-2, -3, EN61000-6-1, 2, 3, 4  
 47 CFR FCC Part 15 Subpart B (Class B)  
 Safety ..... Class II, IEC/EN/UL 62368-1, IEC/UL 60950-1

### NOTE:

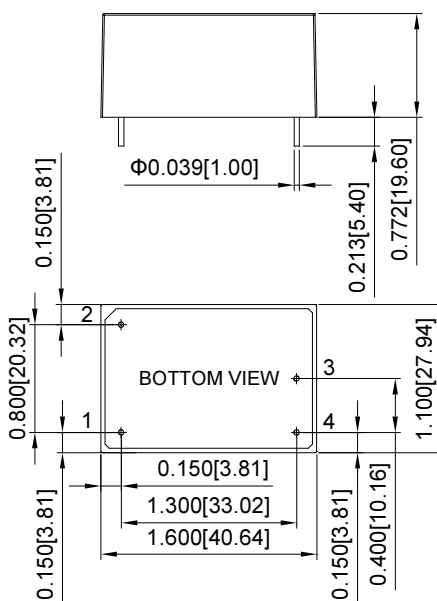
1. Add a 0.1uF ceramic capacitor and a 10uF E.L. capacitor to output for ripple&noise measuring @20MHz BW.
2. Voltage accuracy is set of 100% rated load.
3. Line regulation is measured from high line to low line with full load.
4. Load regulation is measured from 10% to 100% full load.
5. Typical efficiency at 230Vc and full load at 25°C
6. T Version wafer with JST B3B-XH/B4B-XH and mate with JST housing XH series or equivalent.

## Mechanical Specification

CFM12SXXX



CFM12SXXX-E

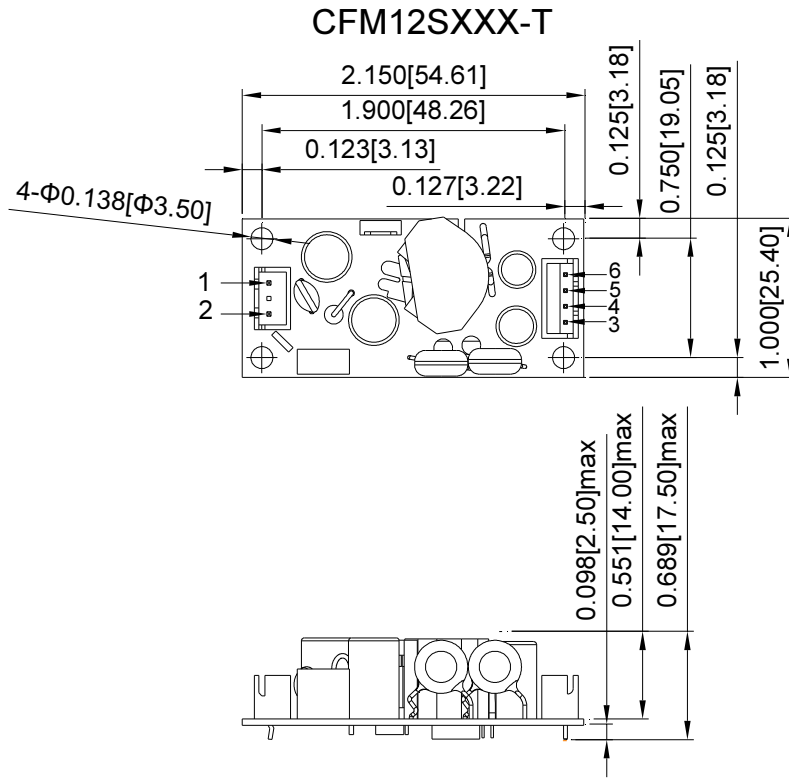


### PIN CONNECTION

Pin	Function
1	ACN
2	ACL
3	-Vout
4	+Vout

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

**Mechanical Specification**



**PIN CONNECTION**

Pin	Function
1	ACN
2	ACL
3	-Vout
4	-Vout
5	+Vout
6	+Vout