



# CFM61S SERIES

## 60 WATT SINGLE OUTPUT AC-DC OPEN FRAME



### Features

- \* Universal Input 90~264VAC
- \* High Efficiency up to 90%
- \* Meets EN55032 Class B and CISRP/FCC Class B
- \* Approved IEC62368-1, UL62368-1, EN62368-1
- \* Continuous Short Circuit Protection
- \* Over Voltage Protection
- \* Peak Load (2 times of rated current (**note6**))
- \* No Load Power Consumption < 0.15W
- \* Class II



### Ordering information

CFM61SXXX - X YZ (Optional)  
 Blank: PCB mount Blank  
 E: Encapsulated PL: PEAK LOAD FUNCTION  
 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
CFM61S050	5 V	8 A	50mV	±2%	±1%	±1%	86%
CFM61S120	12 V	5 A	120mV	±1%	±1%	±1%	88%
CFM61S150	15 V	4 A	150mV	±1%	±1%	±1%	88%
CFM61S240	24 V	2.5 A	240mV	±1%	±1%	±1%	89%
CFM61S360	36 V	1.67 A	360mV	±1%	±1%	±1%	89%
CFM61S480	48 V	1.25 A	480mV	±1%	±1%	±1%	90%

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

# Specifications

# CFM61S Series De-rating Curve

## INPUT SPECIFICATIONS:

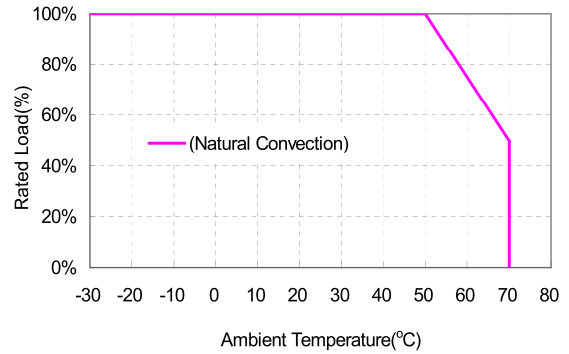
Voltage ..... 90~264Vac  
 Frequency ..... 47 to 63Hz  
 Inrush Current ..... 120A max. @240Vac, Cold Start @25°C  
 Leakage Current ..... 0.25mA max. @ 264Vac  
 Input Current ..... 100Vac/1.5A max., 240Vac/0.8A max.

## OUTPUT SPECIFICATIONS:

Holdup Time ..... 10ms typ. @115Vac  
 Short Circuit Protection ..... Hiccup Mode (Auto Recovery)  
 Temperature Coefficient ..... ±0.05%/°C  
 Over Voltage Protection ..... TVS Component to Clamp  
 Startup time ..... 115Vac <2s typ. , 230Vac <1s typ.  
 Switching Frequency ..... 65KHz Typical

## GENERAL SPECIFICATIONS:

Isolation Voltage(Input to Output) ..... 3000VAC  
 Operating Temperature..... -30°C~70°C (Derating from 50°C to 70°C)  
 Storage Temperature ..... -30°C~85°C  
 Cooling ..... Natural Convection  
 Humidity ..... 93%RH max. Non condensing  
 Isolation Voltage (Input to Output) ..... 3000VAC  
 MTBF ..... MIL-HDBK-217F, GB, 25°C/115VAC ..... 300Khrs min.  
 Life time..... 26000 hours min.@ 75% load, 40°C  
 Altitude ..... 5000m  
 Dimensions ..... 2.000x2.000x1.346 inches (50.80x50.80x34.20 mm)  
 -E: 2.136x2.136x1.409 inches (54.25x54.25x35.80 mm)  
 -T: 2.700x2.000x1.291 inches (68.58x50.80x32.80 mm)  
 Weight ..... 93g, 96g(-T), 190g(-E)



## SAFETY AND EMISSION:

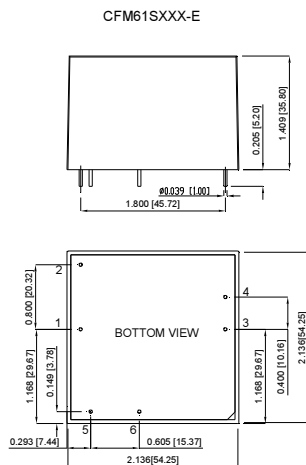
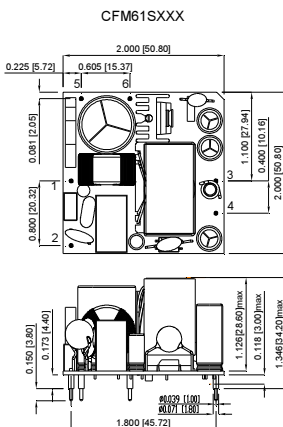
Emission and Immunity ..... EN55032 Class B, FCC Part 15 Class B  
 EN61000-3-2, EN61000-3-3, EN61000-6-3, EN61000-6-4  
 Immunity ..... EN55024, EN61204-3, EN61000-6-1, EN61000-6-2  
 Safety ..... IEC62368-1, UL62368-1

## NOTE:

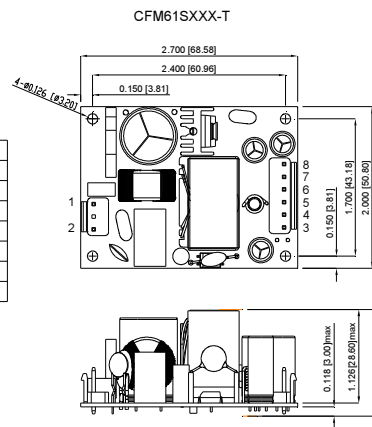
1. Voltage accuracy is set of 100% rated load.
2. Add a 0.1uF ceramic capacitor and a 10uF E.L. capacitor to output for ripple&noise measuring @20MHz BW. (CFM61S050: Add a 0.1uF ceramic capacitor and 47uF E.L. capacitor.)
3. Line regulation is measured from high line to low line with full load.
4. Load regulation is measured from 10% to 100% full load.
5. T Version wafer with TAIWAN KING PIN TERMINAL PVHI series and mate with JST housing VHR series or equivalent.
6. PL(Peak load function) Lasting time < 10 seconds with a maximum 10% duty cycle And must add external 100uF / 400V capacitor to BC+ & BC-

## Mechanical Specification

All Dimensions In Inches[mm]  
 Tolerance Inches: x.xxx" = ± 0.02  
 Millimeters: x.xx = ± 0.5



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



PIN CONNECTION	
Pin	Function
1	ACL
2	ACN
3	-Vout
4	-Vout
5	-Vout
6	+Vout
7	+Vout
8	+Vout

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