CFM21 SERIES

20 WATT SINGLE OUTPUT AC-DC MODULES

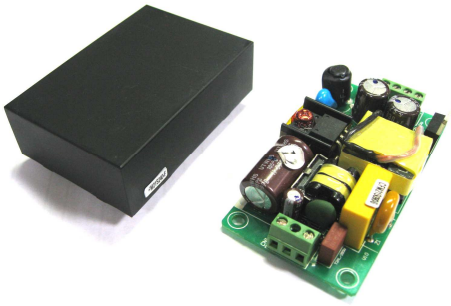
UL 60950-1 And CSA C22 NO.60950-1-07 APPROVED

IEC 60601-1 EN 60601-1

E252331

Features

* Universal Input Range 90~264VAC
* Miniature Size Low Profile 0.8”
* Industry-Standard Pin Out
* Efficiency to 85%
* Option for On-Board, Connecter, Screw Terminal Or Encapsulated type
* Continuous Short Circuit Protection
* Over Voltage Protection
* No Load Input Power < 0.3W
* Leakage Current < 0.1mA
* UL60601-1/IEC60601-1/EN60601-1 Medical Safety Approved
* UL60950-1/IEC60950-1/EN60950-1 ITE Safety Approved



MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE	MIN. LOAD	MAX. LOAD	OUTPUT RATED POWER	RIPPLE & NOISE	VOLTAGE ACCURACY	% EFF.
CFM21S033	90~264 VAC	3.3 V	0	4.0 A	13.2 W	50 mV	±1%	75%
CFM21S050	90~264 VAC	5.0 V	0	4.0 A	20.0 W	50 mV	±1%	80%
CFM21S090	90~264 VAC	9.0 V	0	2.3 A	20.7 W	90 mV	±1%	81%
CFM21S120	90~264 VAC	12 V	0	1.7 A	20.4 W	100 mV	±1%	83%
CFM21S150	90~264 VAC	15 V	0	1.4 A	21.0 W	100 mV	±1%	84%
CFM21S240	90~264 VAC	24 V	0	0.9 A	21.6 W	100 mV	±1%	85%

Specifications are subject to change without notice.

Specifications

INPUT SPECIFICATIONS:

Voltage ..... 90~264Vac
Frequency ..... 47 to 63Hz
Input Current ..... 0.3 to 0.5A
Inrush Current .....Cold Start@25℃..... 40A max. @230Vac
Leakage Current ..... 0.1mA max.

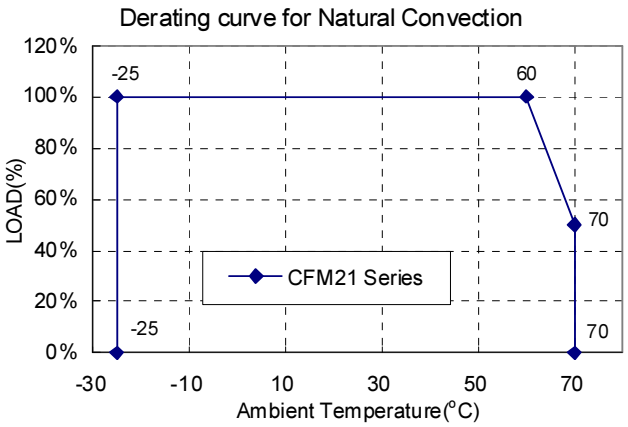
OUTPUT SPECIFICATIONS:

Voltage Accuracy: ..... ±1.0% max.
Line Regulation (note3) ..... ±0.5% max.
Load Regulation (note4) ..... ±1.0% max.
Hold-up Time ..... 10ms typ. @115Vac
Short Circuit Protection ..... Continuous
Over Voltage Protection(TVS) ..... 115%-140% of nominal output voltage

GENERAL SPECIFICATIONS:

Efficiency ..... see Table
Switching Frequency .....100KHz typ.
Isolation ..... Input to output = 5656VDC
Operating Temperature ..... -25 ~ 70℃(with de-rating)
Storage Temperature ..... -40~85℃
Cooling ..... Natural Convection
Humidity ..... 93% RH max. Non condensing
MTBF ..... MIL-STD-217F, GB ..... 650Khrs min.
Dimensions 2.38x1.60x0.80inches (60.5x40.6x20.4mm)
-T: 3.00x1.60x0.77inches (76.2x40.6x19.5mm)
-E: 2.53x1.74x0.80Inches (64.2x44.2x20.4mm)
-S: 3.00x1.60x0.77Inches (76.2x40.6x19.5mm
Weight ..... 50g, 55g(-T, -S), 105g(-E)

CFM21 Series De-rating Curve



SAFETY AND EMISSION:

CE Directive 2004/108/EC, 93/42/EEC
Emissions ... EN60601-1/EN61204-3/EN55022/CISPR Class B, EN55024
Safety Approvals UL60601-1,IEC60601-1,EN60601-1
UL60950-1,IEC60950-1,EN60950-1

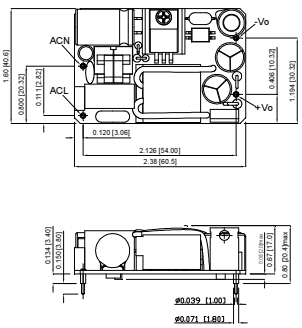
NOTE:

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.
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 Connection: JST B3P-VH / B4P-VH or equivalent.
6. S Version Connection: DECA MB332-381A or equivalent.

Mechanical Specification

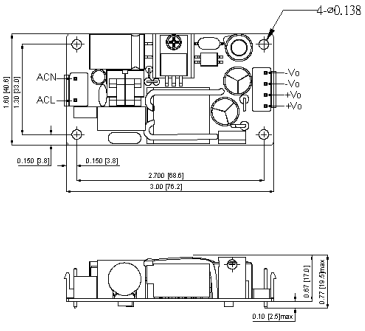
CFM21SXXX

All Dimensions In Inches[mm]
Tolerance: Inches:x.xx= ±0.02,x.xxx= ±0.01
Millimeters:x.x= ±0.5,x.xx= ±0.25



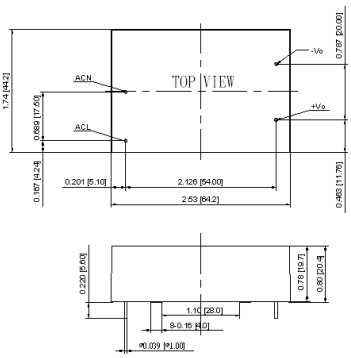
CFM21SXXX-T

All Dimensions In Inches[mm]
Tolerance: Inches:x.xx= ±0.02,x.xxx= ±0.01
Millimeters:x.x= ±0.5,x.xx= ±0.25



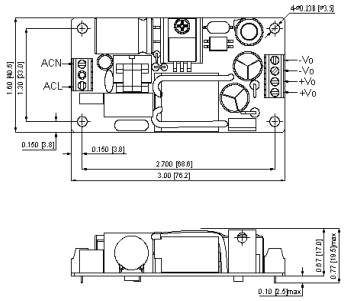
CFM21SXXX-E

All Dimensions are in inches[mm]
Tolerance: Inches:x.xx=±0.02,x.xxx=±0.010
Millimeters:x.x=±0.5,x.xx=±0.25



CFM21SXXX-S

All Dimensions In Inches[mm]
Tolerance: Inches:x.xx= ±0.02,x.xxx= ±0.01
Millimeters:x.x= ±0.5,x.xx= ±0.25



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