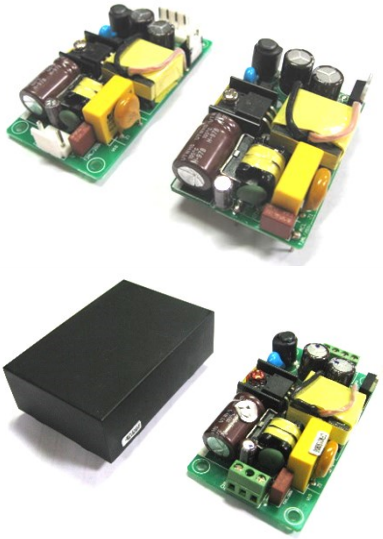
CFM21 SERIES
20 WATT SINGLE OUTPUT AC-DC MODULES

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
- IEC/EN/UL 60601-1 Medical 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.

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Specifications

INPUT SPECIFICATIONS:

Voltage ..... 90~264V_{ac}
120~370V_{dc}
Frequency ..... 47 to 63Hz
Input Current ..... 0.3 to 0.5A
Inrush Current .....Cold Start@25℃ ..... 40A max. @230Vac
Leakage Current ..... 0.1mA max.

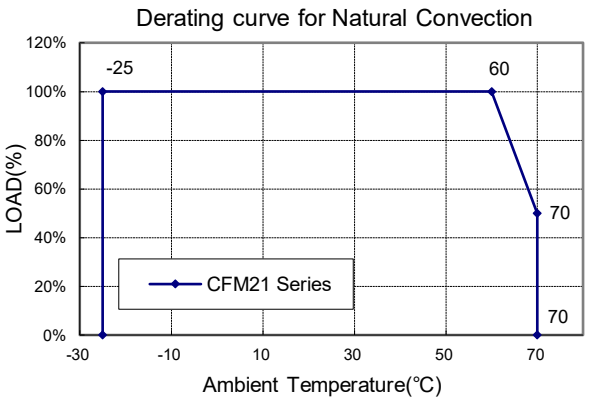
OUTPUT SPECIFICATIONS:

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 = 5656V_{dc}
Operating Temperature ..... -25 ~ 70℃ (with De-Rating)
Storage Temperature ..... -40~85℃
Cooling ..... Natural Convection
Humidity ..... 93% RH max. Non Condensing
MTBF ..... MIL-HDBK-217F, GB, 25℃/115V_{ac} ..... 650Khrs min.
Dimensions ..... 2.38x1.60x0.80 inches (60.5x40.6x20.4 mm)
-T: 3.00x1.60x0.77 inches (76.2x40.6x19.5 mm)
-E: 2.53x1.74x0.80 inches (64.2x44.2x20.4 mm)
-S: 3.00x1.60x0.77 inches (76.2x40.6x19.5 mm
Weight ..... 50g, 55g (-T, -S), 105g (-E)

CFM21 Series De-rating Curve



SAFETY AND EMISSION:

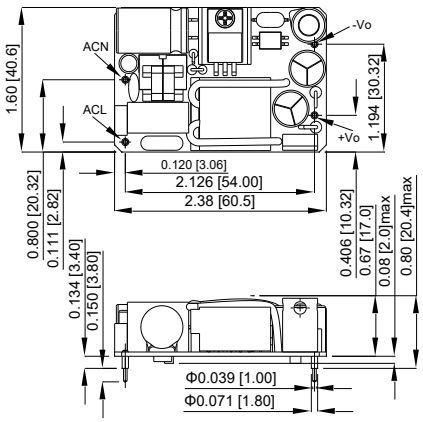
CE Directive 2004/108/EC, 93/42/EEC
Emissions ..... EN60601-1/EN61204-3/EN55032/CISPR Class B, EN55024
Safety Approvals ..... IEC/EN/UL 60601-1

NOTE:

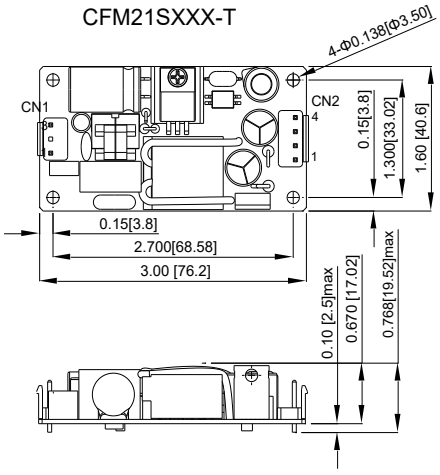
1. Voltage accuracy is set of 100% rated load.
2. Add a 0.1uF ceramic capacitor and a 10uF E.L. capacitor to output for ripple&noise measuring @20MHz BW.
3. Line regulation is measured from high line to low line with full load.
4. Load regulation is measured from 10% to 100% full load.

Mechanical Specification

CFM21SXXX



CFM21SXXX-T



AC Input Connection(CN1):JST B2P3-VH or equivalent

Pin	Function	Mating Housing	Terminal
1	ACL	JST VHR-3N or equivalent	JST SVH-21T-P1.1 or equivalent
2	-		
3	ACN		

DC Output Connection(CN2):JST B4P-VH or equivalent

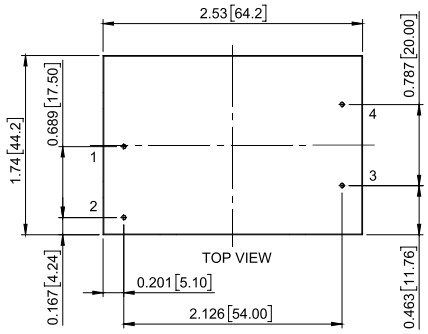
Pin	Function	Mating Housing	Terminal
1	+Vo	JST VHR-4N or equivalent	JST SVH-21T-P1.1 or equivalent
2	+Vo		
3	-Vo		
4	-Vo		

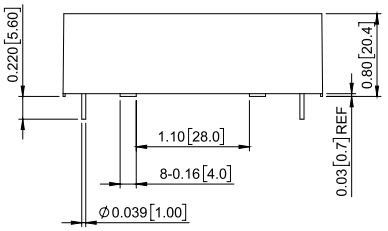
All Dimensions In Inches[mm]
Tolerance: Inches:x.xx= ±0.02,x.xxx= ±0.010
Millimeters:x.x= ±0.5,x.xx= ±0.25

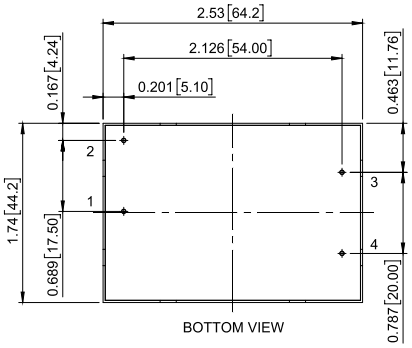
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Mechanical Specification

CFM21SXXX-E





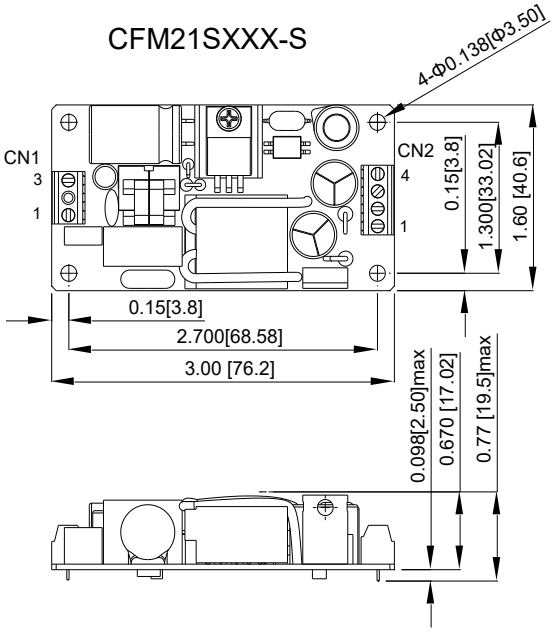


All Dimensions in Inches[mm]
Tolerance Inches: x.xx=±0.02, x.xxx=±0.010
Millimeters: x.x=±0.5, x.xx=±0.25

Pin Connection

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

CFM21SXXX-S



AC Input Connection(CN1):
MB332-381A03C2 3Pin SwitchLab DECA or equivalent

Pin	Function	Mating Wire Range
1	ACL	16 ~26 AWG
2	-	
3	ACN	

DC Output Connection(CN2):
MB332-381A04 4Pin SwitchLab DECA or equivalent

Pin	Function	Mating Wire Range
1	+Vo	16 ~26 AWG
2	+Vo	
3	-Vo	
4	-Vo	

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℃, nominal line and 75% load, unless otherwise Specified

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