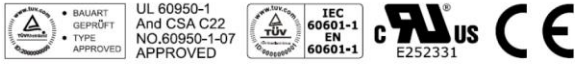




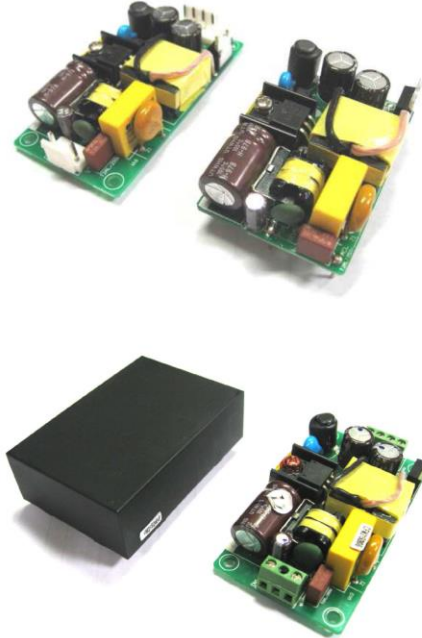
E-Star Power Development Co., Ltd. (E-STAR)
 1F., No.40, Juren Ln., Sec. 2, Sanmin Rd., Banciao Dist., New Taipei City
 22069, Taiwan (R.O.C.)
 Phone : 886-2-2957 5580 Fax : 886-2-2957 7473

20W Open Frame type Medical power supply > CFM21



Features

- * Universal Input Range 90~264VAC
- * Miniature Size Low Profile 0.8"
- * Industry-Standard Pin Out
- * Efficiency to 85%
- * Option for On-Board, Connector, 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.



20W Open Frame type Medical power supply > CFM21

Specifications

INPUT SPECIFICATIONS:

Voltage 90~264Vac
 Frequency 47 to 63Hz
 Input Current 0.3 to 0.5A
 Inrush Current Cold Start@25°C 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

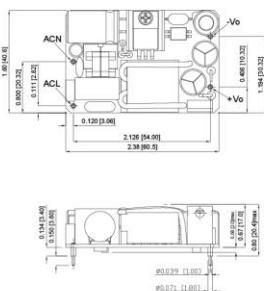
GENERAL SPECIFICATIONS:

Efficiency see Table
 Switching Frequency 100KHz typ.
 Isolation Input to output = 5656VDC
 Operating Temperature -25 ~ 70°C (with de-rating)
 Storage Temperature -40~85°C
 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)

Mechanical Specification

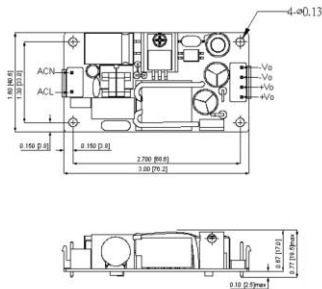
CFM21SXXX

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



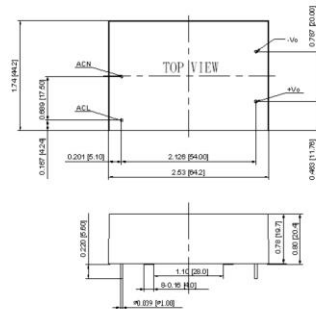
CFM21SXXX-T

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



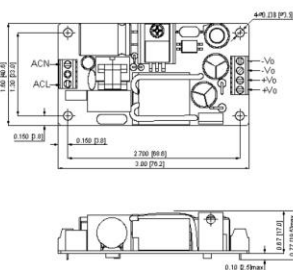
CFM21SXXX-E

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

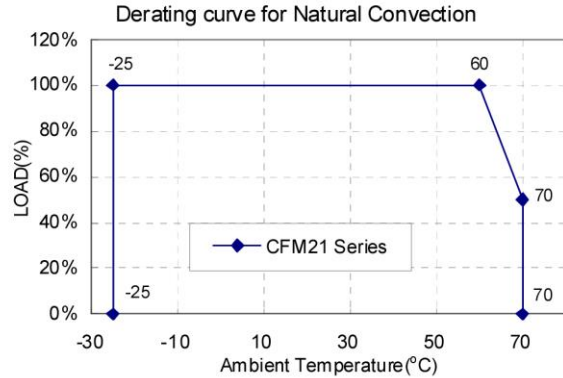


CFM21SXXX-S

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



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.

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