



eFO306-112 – 350W Open Frame Single Output AC/DC Switching Power Supply

Product Description



Industry's smallest open frame single output AC/DC switcher delivering 350W continuous Power with built-in "O-Ring" diodes and active PFC. The unit is built in a 1U configuration

**Telkoor Part Number:
900-3036-0000**

Product Specifications:

Input

AC Input Voltage	85-265 VAC
Input Inrush Current	60A maximum, cold start at 25°C, 220VAC
Active Power Factor Correction	0.96 typical at 230VAC, full load 0.99 typical at 115VAC, full load
Efficiency @ 230VAC Full Load	87% typical at 230VAC, full load

Output

Efficiency @ 115VAC Full Load	83% typical at 115VAC, full load
Input Line Protection	Internal Line Fuse: Replaceable subminiature type 6.3A 250Vac Normal Blow
Hold-up Time	12 mSec minimum at 110 VAC and full load

V1 / Current	+12VDC / 29A
Aux V / Current	+5VDC / 5mA
Total Output Power	350Watt
Line Regulation	±0.4% for Vin (Min) to Vin (Max)
O-Ring option	Yes
Hot-Swap option	Yes
Current Share	YES, built in Oring
Remote Sense (open sense lines protected)	V1 – compensates for voltage drop of up to 0.5V between the unit and the load. Outputs are internally sensed at the output connector if remote sense lines are opened.
Transient Response	± 5% Max. Deviation for load change of 25% to 75%, at slew rate of 1A/μsec, recovery time less then 2 mSec.
Over-Voltage Protection	Output shut down at 125% of nominal (Latched Shut-Down) AC input must recycle to re-start.
Short Circuit Protection	Yes
Temperature Protection	Shutdown due to excessive internal temperature 95 ± 5°C automatic recovery.
Load Regulation	
V1	Less than ±1% for load changes from zero to full load
Min. Load Requirement	No
Overshoot / Undershoot at	Less than 1% at turn ON and OFF

Turn-on	
Turn-on Delay	2 sec. Maximum
Initial Setting Accuracy	Factory pre-set at $\pm 0.1V$
Voltage Set Point (Internal trim-pot) V1	+/- 0.1V
Ripple @ Noise with 20MHz Bandwidth measured across 47μF Load Capacitor Paralleled with 1μF Ceramic Cap.	
V1	120mVp-p Max, and 150mVp-p at -5°C
V2	100mVp-p Max
Overload Protection	
V1	130% I Max.

Environmental

Temperature	
Operation	-5°C to +50°C (de-rating linearly to 70 °C with 50% de-rating).
Storage	-25°C to +85°C.
Cooling	150W free convection cooling (base plate cooling). 350W forced air cooling (250 LFM min.)
Humidity	Maximum 5% to 95% RH non-condensing
Altitude	Operating 10,000 ft. Non- operating 40,000 ft
Vibration	Three orthogonal axes at 1 octave/min, 5 min dwell at four major resonances at 0.75G peak, 5Hz to 500Hz.
Conducted & Radiated Emission	FCC CLASS B, CISPR 22 CLASS B, EN55022 CLASS B – With an external input line filter
Surge	EN61000-4-5

MTBF	300,000 hours minimum per BELCOR 332, issue 6 specification @30 degrees C.
Dielectric Isolation	
Input to Case	2200VDC
Input to Output	4200VDC
Output to Case	100VDC

Safety, Regulations and EMI Specifications

Safety Approvals	UL 60950, CSA C22.2 -234, LEVEL 3, EN-60950, CLASS 1, SELV CE - MARK
ESD Susceptibility	EN61000-4-2 +8KV AIR +4KV contact discharge, performance criteria B
Input Reflected Ripple	FCC CLASS B, CISPR 22 CLASS B, EN55022 CLASS B with external line filter
Radiated Susceptibility	EN61000-4-3 80-1000Mhz 3V/m, AM 80% (1KHz), criteria A
EFT / Burst	EN61000-4-4 level B
Input Surge	EN61000-4-5 2KV common mode and 1KV differential mode
Conducted Disturbance	EN61000-4-6 3VRMS, 80% A.M. BY 1kHz
Power frequency magnetic field	EN61000-4-8 3A /m at 50Hz, performance criteria A
Immunity to voltage Dips	Voltage dips and interruption: 30% reduction for 10mSec –Criteria B, 60% For 100mSec. Criteria C, 95% reduction for 5000mSec Criteria C.

Monitoring Command & Control

Inhibit	Active low, all output shut down
Power OK	Open collector active low when any of the outputs drop below 10% of its nominal value.
Input AC Connector	Molex 3 Pin P/N 26-48-1055 Mating connector: Housing – Molex 09-50-3051 (x1) Crimp terminal – 08-52-0113 (x3)
M&C Connector J3:	HIROSE 10 Pin P/N DF11-10DP-2DSA Mating connector: Housing DF11-10DS-2C (x1) Crimp terminal DF11-2428SC (x10)
Output Connectors	#10 Power ring – two lugs

Mechanical Dimensions

Size	173 x 98 x 38.5(mm) (6.8" x 3.85" x 1.52")
Weight	720 gr. Max. (27 oz)

Outline Drawing

All characteristics are subject to change without prior notice.

