



eFO306-433 – 300W Open Frame Quad Output AC/DC Switching Power Supply



Product Description

Industry's smallest open frame quad output AC/DC switcher delivering 300W continuous Power with built in "O-Ring" diodes and active PFC. The unit is built in a 1U configuration

**Telkoor Part Number:
900-3106-0000**

Product Specifications:

Input

AC Input Voltage	85 - 264Vac, auto range, single phase
Input Inrush Current	50 A maximum at 230Vac, 25A maximum at 115Va
Active Power Factor Correction	0.98 typical at 230VAC, full load 0.99 typical at 115VAC, full load
Efficiency @ 230VAC Full Load	83% at 230Vac, full load rated power
Efficiency @ 115VAC Full Load	80% at 120Vac, full load rated power
Input Line Protection	Internal Line Fuse: IEC type, 6.3A 250Vac quick acting
Hold-up Time	16mSec at full load and 220VAC input

Output

V1 / Current	+5V / 40A
V2 / Current	+3.3V / 40A
V3 / Current	+12V / 4A
V4 / Current	-12V / 1.5A
Total Output Power	300W with 250LFM forced air cooling
Line Regulation	±0.5%
O-Ring option	Yes
Hot-Swap option	Internal O-Ring Diode
Remote Sense (open sense)	Available on V1 & V2. Maximum

lines protected)	voltage compensation for cable losses 300mV
Transient Response	±5% Max. Deviation for load change of 25% to 75% , at slew rate of 1A/usec, recovery time less then 5mSec
Over-Voltage Protection	110 to 130% with latched shut down (V1, V2, V3)
Short Circuit Protection	Yes
Temperature Protection	System shutdown due to excessive internal temperature, automatic reset
Load Regulation	
V1, V2	± 1%
V3, V4	± 4%
Overshoot / Undershoot at Turn-on	0% at turn ON
Turn-on Delay	2 sec. Maximum
Voltage Set Point (Internal trim-pot)	V1+/-0.4V, V2+/- 0.2V,
Ripple @ Noise: 20 MHz bandwidth measured across 1uF ceramic and 120uF electrolytic. Capacitor in paralleled.	
V1 & V2	60mV p-p
V3 & V4	120mV p-p
Overload Protection	
Fully protected against output overload and short circuit. Automatic recovery upon removal of overload condition	V1 & V2 : 135% max. V3: 180% max. V4: 250% max.

Environmental

Temperature	
Operation	-5°C to +55°C full load with 250LFM Forced Air Cooling and de-rating linearly above 55°C by 2.5% per °C
Storage	-40°C to +85°C
Cooling	150W free convection cooling (base plate cooling). 300W continuous forced air cooling (250lfm, or 15CFM min.)
Humidity	Up to 95% RH non-condensing
Altitude	Operation 6K ft Non operation 40K ft.
Vibration	Random vibration, 10Hz to 500Hz, 3 axis 1.9GRMS max.
Shock	Peak acceleration 20GPK max.
Conducted & Radiated Emission	EN55022/CISPR22 Class B with an external TBD line filter
Surge	EN6100 -4-5 level 3 line-to-line 1KV line to chassis 2KV

MTBF	300,000 hours per Bellcore standard B332 Gb 30°C
Dielectric Isolation	
Input to Case	1500VAC.
Input to Output	3000VAC
Output to Case	100VDC

Safety, Regulations and EMI Specifications

Safety Approvals	UL 60950, EN-60950, CE - MARK
ESD Susceptibility	EN61000-4-2 level 4 8KV air
Radiated Susceptibility	EN61000-4-3 level 3 10V/m
EFT / Burst	EN61000-4-4 level 3 ±2KV
Input Surge	EN6100 -4-5 level 3 line-to-line 1KV line to chassis 2KV
Conducted Disturbance	EN61000-4-6 level 2 3Vrms
Power frequency magnetic field	EN61000-4-8 3A/m

Monitoring Command & Control

Inhibit	TTL –compatible signal inhibited with GND or TTL “0”
DC Fail	TTL compatible signal, open collector active low signal. Indicates V1, V2, V3 outputs below 90% of specified rate
Input AC Connector	Molex 26-48-1055, on the power supply PCB
Current Share	Accuracy of current share ±10% between units with up to 6 parallel units. Single wire current share on V1 & V2 for 50% to 100% load.
Output Connectors	V1, V2 10-32 UNF Studs V3, V4 Molex 4 Pins p/n 26-48-1045 5V Aux. And signals Hirose DF11-10DP-2DSA

Mechanical Dimensions

Size	127mm x 84mm x 38.0mm
Weight	650 Gr.

Outline Drawing

All characteristics are subject to change without prior notice.

