



eF175-105 – 150W Open Frame Single Output AC/DC Switching Power Supply



Product Description

Industry's smallest open frame single output AC/DC switcher delivering 150W continuous Power with an option for built-in "O-Ring" diodes. The unit is built in a 1U 3" X 5" footprint

**Telkoor Part Number:
900-0105-0000**

Product Specifications:

Input

AC Input Voltage	85-265 VAC
Input Inrush Current	50A maximum, cold start at 25°C, 250VAC 25A maximum, cold start at 25°C, 120VAC
Input Reflected Ripple	FCC CLASS B, CISPR 22 CLASS B, EN55022 CLASS B with external line filter
Active Power Factor Correction	0.98 typical at 230VAC, full load 0.99 typical at 115VAC, full load
Efficiency @ 230VAC Full Load	80% typical at 230VAC, full load
Efficiency @ 115VAC Full Load	76% typical at 115VAC, full load
Input Line Protection	Internal Line Fuse: Replaceable subminiature type 6.3A 250Vac Normal Blow
Hold-up Time	16Msec minimum at full load

Output

V1 / Current	+5VDC / 30A
Total Output Power	150Watt
Line Regulation	±0.2% for Vin (Min) to Vin (Max)
Oring option	Optional internal O-Ring diode (eFS175-105 model)
Hot-Swap option	With optional internal O-Ring diode

	(eFS175-105 model)
Remote Sense (open sense lines protected)	V1 only compensates for voltage drop of up to 0.5V to the load. Outputs are internally sensed if loads are opened.
Transient Response	±5% Max. Deviation for load change of 25% to 75%, at slew rate of 1A/μsec, recovery time less then 500Msec
Over-Voltage Protection	Outputs 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	±2% for load changes from zero to full load
Min. Load Requirement	No
Overshoot / Undershoot at Turn-on	Less than 1% at turn ON and OFF
Turn-on Delay	2 sec. Maximum
Initial Setting Accuracy	Factory pre-set at ±0.4%
Voltage Set Point (Internal trim-pot) V1	+/- 0.4%
Ripple @ Noise with 20MHz Bandwidth measured across 120μF Load Capacitor Paralleled with 1μF Ceramic Cap.	
V1	75mV Max. Vp-p
Overload Protection	
V1	130% Max.

Environmental

Temperature	
Operation	Operating: -5°C to +50°C (de-rating linearly to 70 °C with 50% de-rating)
Storage	-25°C to +85°C.
Cooling	100W free convection cooling (base plate cooling). 200W forced air cooling(250 LFM min.)
Humidity	Maximum 5% to 95% RH non-condensing
Altitude	EN55022/CISPR 22 Class B with an external line filter
Shock & 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	
Surge	EN61000-4-5

MTBF	300,000 hours minimum per BELCOR 332,issue 6 specification @30 degrees C.
Dielectric Isolation	
Input to Case	1500Vdc.
Input to Output	3000Vdc.
Output to Case	500Vdc.

Safety, Regulations and EMI Specifications

Safety Approvals	UL60950, EN60950 & CE marking
ESD Susceptibility	EN61000-4-2 level 4 8KV air
Radiated Susceptibility	EN61000-4-3 80-1000Mhz 3V/m, AM 80% (1KHz),criteria A
EFT / Burst	EN61000-4-4 level B
Input Surge	EN6100 -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	TTL Compatible, Active low.
Power OK	Open Collector, Active low.
Input AC Connector	Molex 3 Pin 0.2 41695 series
Current Share	Optional in eFS175-105 model
Output Connectors	Tap M5x82 by Fujicon F4076DS
Aux. Output	Optional +5V/5mA in eFS175-105 Model

Mechanical Dimensions

Size	127 x 84 x 38 (mm) 3.3" x 5.0" x 1.5"
Weight	450 gr. Max. (16 oz)

