

eF175-103

Power Supplies Ltd.
Telkoor

100 Watt Open Frame Single Output AC/DC Switching power supply



Product Description

"The Industry's smallest open frame single output AC/DC switcher delivering 100W continuous power with an option for built in "Oring" diodes. The unit is built in a 1U' 3" x 5" footprint."

Telkoor Part Number:
900-0403-000

Product Specifications:

Input

AC Input Voltage	85-264VAC Wide Range
Input Inrush Current	< 50Amp @ 220VAC Cold Start and < 25Amp@115VAC cold Start
Input Reflected Ripple	FCC 68 part 15 Class B
Active Power Factor Correction	0.98 typical at 110VAC input @ full load' 0.99 typical at 220VAC input @ full Load
Efficiency @ 230VAC Full Load	85% Typical
Efficiency @ 115VAC Full Load	82% Typical
Input Line Protection	Internal Line Fuse 5X20 type 6.3A 250Vac Normal Blow
Hold-up Time	20mSec minimum @ Full Load

Output

V1/Current	+3.3V/30A
Total Output Power	100W
Line Regulation	+/- 0.2% for Vin (min.) to Vin (max.)
Oring Option	Optional internal O-Ring diode in eFS175-103 model
Hot-Swap	Optional internal O-Ring diode in eFS175-103 model
Current Share	Optional in eFS175-103 model' N+1 single wire
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	Output shuts down at 125% of nominal (latched shutdown) AC input must recycle to re-start
Short Circuit Protection	Yes
Temperature Protection	Excess Temp. Shutdown When internal highest temperature exceeds >110Deg C +/- 5deg C. Auto recovery
Load Regulation	
V1&V2	0.5% for load changes from zero to full load

Overshoot/Undershoot at Turn-On	< 1% at turn ON & OFF
Turn-On Delay	2 Sec. Maximum
Initial Setting Accuracy	Factory pre-set @ +/-0.4%
Voltage Set point (Internal trim-pot) V1/V2	+/- 5%
Ripple @ Noise with 20MHz Bandwidth mesured across 10uF Load Capcitor Paralleled with 0.1uF Ceramic Cap.	
V1	1% Max
Overload Protection	
V1 & V2	120% to 130% of I Max' constant current limit' automatic recovery

Enviromental

Temperature

Operation	-5C to +50C. Linear De-Rating of 2.5% per 1Deg. C up to +70C
Storage	-25C to +85C
Cooling	100W free air convection cooling (base plate cooling). 200W Forced Air Cooling 250LFM min.
Humidity	Up to 95% RH Non-Condensing
Shock & Vibration	Three orthogonal axis at 1 octave/min' 5 in dwell at four major resonances at 0.75G peak' 5Hz to 500Hz
Conducted & Radiated Emmision	EN55022 CLASS B with external line filter
Surge	EN61000-4-5
MTBF	300'000 Hours minimum per BELCORE 332' issue 6 specification @ 30 Deg C

Dialectric Isolation

Input to Case	> 1500VAC
Input to Output	3000VAC
Output to Case	250VDC

Safety, Regulations and EMI Specifications

Safety Approvals	EN-60950' UL-60950 & CE Marking
ESD Susceptibility	Meets EN61000-4-2 8Kv Air' 4Kv contact
Radiated Susceptibility	EN61000-4-3 30-1000MHz FCC Part 15' Subpart B CLASS B
EFT/Burst	EN61000-4-4
Input Surge	EN61000-4-5
Conducted Disturbance	EN61000-4-6
Power frequency magnetic field	EN61000-4-8
Immunity for voltage Dips	EN61000-4-11

Monitoring Command & Control

Inhibit	Optional Active LOW' all outputs shut down in eFS175-103 Model
Power OK	Optional Open collector active LOW when any of the outputs drop below 15% of its nominal value in eFS175-103model.
Input AC Connector	"Molex 3 Pin' 0.2" 41695 Series"
Current Share	Optional in eFS175-103 Model

Output Connectors V1/V2

Tap M5x82 by Fujicon F4076DS

Aux. Output

Optional +5V/5mA in eFS175-103Model

Mechanical Dimesions

Size in cm (Inch)

"127 X 84 X 38 (5" X 3.3" X 1.5)"

Weight in Grams (Oz)

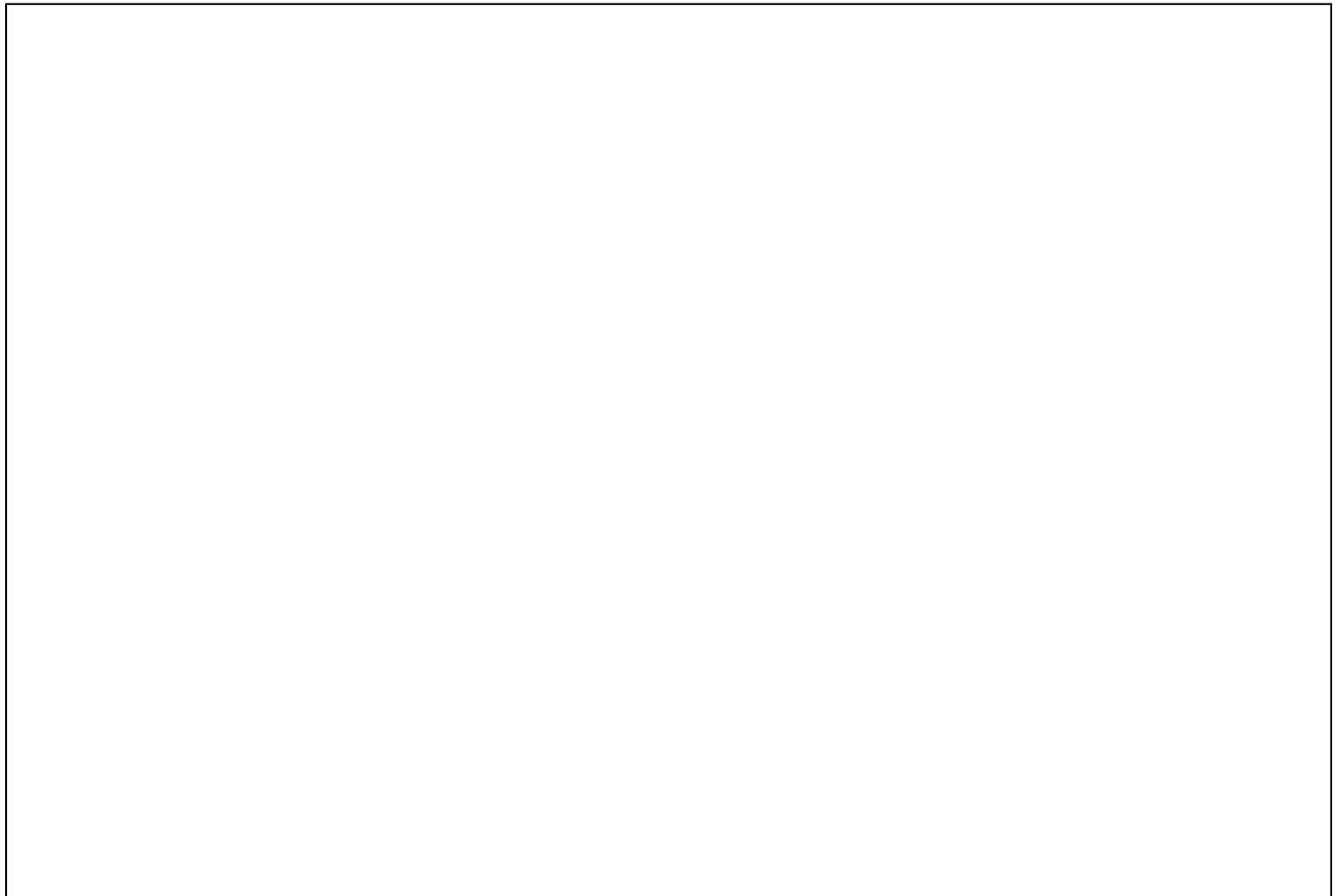
450gr. Max

Telkoor Document Number

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Outline Drawing



All characteristics are subject to change without prior notice.