

eFO600-224 Series

Electrical

Specification for: Wide range AC/DC Single Output 600W Power Supply

Telkoor Part Number: 900-5124-0000

CUSTOMER	SIZE	CAGE CODE		S5417	DWG. NO.	5124-DOC1-10		REV	B1
GENERAL	SCALE			RELEASE DATE	08/11/2015	SHEET	1	OF	6



	REVISION HISTORY											
Rev Level	Rev Date	Change Made	Approved By	Effective								
Α	22/06/2015	RELEASE		S. Sadot	22/06/2015							
В	08/11/2015	Update operating temp. and storage temp.	To withstand with customer requirements	S. Sadot	08/11/2015							
B1	15/01/2017	Add operation Frequency Up to 435 Hz	Update Spec. Following operation tests .	S. Sadot	15/01/2017							

Approvals								
	Name	Date						
Written by:	S. Sadot	22/06/2015						
Engineering:	S. Sadot	22/06/2015						
Sales & Marketing:	H. Liber	22/06/2015						

CUSTOMER	SIZE	CAGE CODE	S5417	DWG. NO.	5124-DOC1	-10	REV	B1
GENERAL	SCALE		RELEASE D	ATE 08/11/2015	SHEET	2	OF	6



Input:

Input Voltage: 85 - 264Vac 47 - 435Hz Frequency:

Inrush Current: 50A maximum, cold start at 25°C Efficiency: 90% typical at 230Vac, full load 85% typical at 115Vac, full load Power Factor: 0.96 typical at 230Vac, full load 0.99 typical at 115Vac, full load

Input Protection: Internal Line Fuse: IEC type 10A 250VAC SLO BLOW

Brown - Out: 75 to 300Vac

Leakage Current < 0.5mA @ 50/60Hz, 264Vac

Output Voltages & Currents:

Output	Output Voltage	Maximum Amps With 24CFM Forced Air	Peak Load
V1	+24V	25A	26A

Output:

500W for free convection base plate cooling , base plate Temp $+75^{\circ}\text{C}$, Maximum Power

Ambient Temp +85°C, 600W with forced air-cooling (24CFM min.)

Adjustment range ±5% Auxiliary standby output - Option N/A Line Regulation: ±1%

Less than $\pm 0.5\%$ for load changes from zero to full load. Load Regulation:

0.5% Pk-Pk Max, 20Mhz BW Measured on 120uF tantalum in parallel with a 0.1uF Ripple & Noise

ceramic capacitor on output connector.

Initial Set Point Tolerance: Vout \pm 0.5% Minimum Load 1 Amp.

Overshoot & Undershoot: Less than 0.5% at turn ON and OFF

 $\pm 5\%$ Max. Deviation for load change of 25% to 75%, at slew rate of 1A/ μ sec, Transient Load Response:

recovery time less then 500uSec

1 sec. Maximum Turn On Delay: 16mSec minimum. Hold-up Time: 50mSec Typical Turn-On Rise Time:

110 to 135% of I Max, constant current limit, automatic recovery. Over-current Protection:

120 to 135% above nominal (Latched Shut-Down) AC input must recycle to re-start. Over-voltage Protection:

Temperature Protection: Shutdown due to excessive internal temperature 95± 5°C automatic recovery.

Current Share: YES, Built In O-ring diode / FET

Remote Sense Compensates for 0.5V lead drop min. Will operate without remote sense connected.

CUSTOMER	SIZE	CAGE CODE		S5417	DWG. NO.	5124-DOC1-10		REV	B1
GENERAL	SCALE			RELEASE DATE	08/11/2015	SHEET	3	OF	6



Signals & Commands

Cooling:

Inhibit (On / Off): Active LOW - output shut down.

DC Fail: TTL level Open collector active low. (Note: 30Sec. Min delay time from "0" to "1"

due to Turn-On).

AC Fail (Option): Open collector active high.

I²C bus (Option) N/A

Environmental Specifications:

Temperature: Operating: -40°C to +75°C, 500W for free convection base plate cooling,

base plate Temp +75°C, Ambient Temp +85°C,

Storage: -40°C to +85°C.

500W free convection cooling (base plate +75°C). 600W forced air cooling (24CFM min.)

Humidity: Maximum 95% RH non-condensing

Altitude: Operating 6,000 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.

Safety Regulatory & EMC Specifications:

Meets FCC CLASS B, CISPR 22 CLASS B, EN55022 CLASS B with external line filter

EN61000-3-2 Harmonics

EN61000-3-3 Voltage fluctuations

EN6000-4-2 ESD +8KV AIR +4KV contact discharge, performance criteria B
EN61000-4-3 Radiated Immunity: 80-1000Mhz 3V/m, AM 80% (1KHz),criteria A

EN61000-4-4 Fast transient: 1KV for AC power port, 0.5KV for DC power I/O and signals Port,

performance criteria B

EN61000-4-5 Surge: 2KV common mode and 1KV differential mode

EN61000-4-6 3VRMS, 80% A.M. BY 1kHz

EN61000-4-8 3A /m at 50Hz, performance criteria A.

EN61000-4-11 Voltage dips and interruption: 30% reduction for 10mSec —Criteria B, 60% For 100mSec.

Criteria C, 95% reduction for 5000mSec Criteria C.

Dielectric Withstand:

Input to Case: 2200Vdc
Input to Output: 4200Vdc
Output to Case: 500VDC

Safety Agency Compliance: UL 60950-2, CB Certificate & Report, CE MARK (LVD).

MTBF: 300,000 hours minimum per BELCOR 332,issue 6 specification @50 degrees C.

RoHS: Category 6

Mechanical Dimensions:

Size: 173 x 98 x 38.5(mm) (6.8" x 3.85" x 1.52")

 Weight:
 850 gr. Max. (27 oz)

 Input Connector J1:
 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: Molex 16 Pin P/N 90130-1116

Mating connector: Housing 90142-0016

Crimp terminal 90119-2110 (x16)

V2 Connector J5 Molex 2 Pin P/N 26-48-1025

Mating connector: Housing – Molex 09-50-3021 (x1) Crimp terminal – 08-52-0113 (x2)

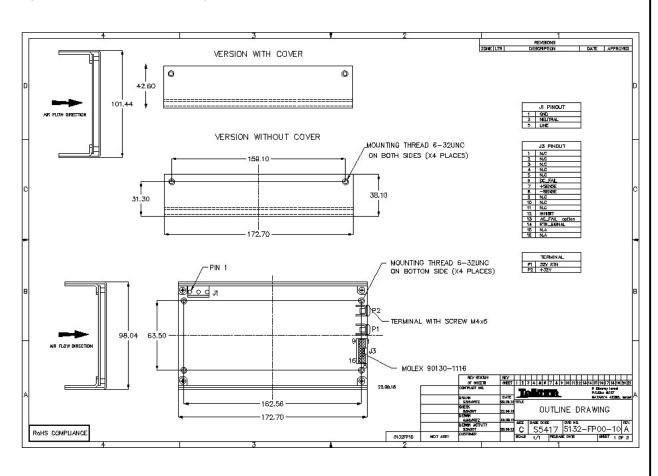
Crimp terminal – 08-5

Main output 32V Terminal : Screw M4 X6

CUSTOMER	SIZE	CAGE CODE		S5417	DWG. NO.	5124-DOC1-10		REV	B1
GENERAL	SCALE			RELEASE DATE	08/11/2015	SHEET	4	OF	6



Open Frame Outline Drawing:



CUSTOMER	SIZE	CAGE CODE	S5417	DWG. NO.	5124-DOC1-	·10	REV	B1
GENERAL	SCALE		RELEASE DATE	08/11/2015	SHEET	5	OF	6



J1 - INPUT CONNECTOR PIN ASSIGNMENT

Pin	Description
1	GROUND
3	NEUTRAL
5	LINE

J8 - OUTPUT 32Vdc Terminal Block

Pin	Signal Name.
1	24V OUTPUT RTN
2	24V OUTPUT RTN
3	24V
4	24V

J3 - OUTPUT CONNECTOR PIN ASSIGNMENT

Pin	Signal Name.	Description
1	GA-0	N/A, I2C OPTION
2	GA-1	N/A , I2C OPTION
3	GA-2	N/A, I2C OPTION
4	CURRENT SHARE	Current Share Signal
5	DC FAIL HIGH	Option
6	DC FAIL LOW	TTL Level - Active Low
7	P- SENSE	+ Remote Sense (option)
8	N - SENSE	- Remote Sense (option)
9	IPMI - SDA	N/A , Option Serial Data I2C
10	IPMI - SCL	N/A , Option Serial Clock I2C
11	External 5V	N/A, Option External 5V for I2C
12	INHIBIT	Active LOW
13	AC_FAIL	Option
14	RTN SIGNAL	N/A
15	5V_AUX	N/A
16	5V-AUX RTN	N/A

CUSTOMER	SIZE	CAGE CODE		S5417	DWG. NO.	5124-DOC1-10		REV	B1
GENERAL	SCALE			RELEASE DATE	08/11/2015	SHEET	6	OF	6