


**SERIES:** PSE-1000 | **DESCRIPTION:** AC-DC HOT-SWAP POWER SUPPLY

**FEATURES**

- up to 1000 W continuous power
- 1U x 2U package
- I<sup>2</sup>C communication for monitoring and control
- blind mate connections for hot-swap
- redundant (N+1) operation
- power factor correction
- 3.3 Vdc (0.5A) standby voltage
- DROOP current sharing or forced current sharing (optional)
- single I/O connector for AC input, DC output & signals
- remote on/off control, power good signal
- efficiency up to 90%



MODEL	output voltage	output current max	output power max	ripple and noise max	efficiency <sup>1</sup>
	(Vdc)	(A)	(W)	(mVp-p)	typ (%)
PSE-1000-54	54	18.50	1000	540	90

Notes: 1. At 230 Vac input.

**PART NUMBER KEY**

**PSE-1000 - 54 - CXX**

Base Number

Output Voltage

Reserved for Custom  
Configurations

## INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		50		60	Hz
current	at 90 Vac			13.2	A
inrush current	half cycle, cold start, 25°C at 115 Vac, 60 Hz at 230 Vac, 50 Hz			20 40	A A
leakage current				1.5	mArms
power factor correction		0.95	0.98		

## OUTPUT - V1 (MAIN OUTPUT)

parameter	conditions/description	min	typ	max	units
total regulation			±3		%
transient response	25% step load, recovery to 1% within 1 ms, slew rate 1 A/μs			3	%
hold-up time	full load in redundant operation	12 20			ms ms

## OUTPUT - V2 (STANDBY OUTPUT)

parameter	conditions/description	min	typ	max	units
output voltage			3.3		Vdc
output current		0		0.5	A
ripple and noise				33	mVp-p
total regulation			±2.5		%

## STATUS & CONTROL

parameter	conditions/description	min	typ	max	units
I <sup>2</sup> C interface	SCL 100 kHz clock rate, SDA data line				
remote sense	main output				
remote enable	"active low" enable main output, last-mate/ first-break enable pin				
current share	droop share, active current share option				
status	AC OK, DC OK, and OTP_OK (open collector, active "low" =OK); and PS_Present				
LED indicator	AC OK & DC OK indicators				

## PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	V1 V2		115	60	Vdc %
over current protection	latching; shutdown after 2 s			120	%
over temperature protection	output shut down, auto recovery				

## SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
safety approvals	cTUVus UL60950-1, CE (LVD)				
emissions	FCC 15 Sub Part J, Class A, EN55022 Class A				
harmonic compliance	EN61000-3-2 Class A				
surges (mains)	IEC/EN 61000-4-5				
voltage dips/interruptions	IEC/EN 61000-4-11				

**SAFETY & COMPLIANCE (CONTINUED)**

parameter	conditions/description	min	typ	max	units
MTBF	as per Telcordia SR332, 40°C, full load	500,000			hours
RoHS	2011/65/EU				

**ENVIRONMENTAL**

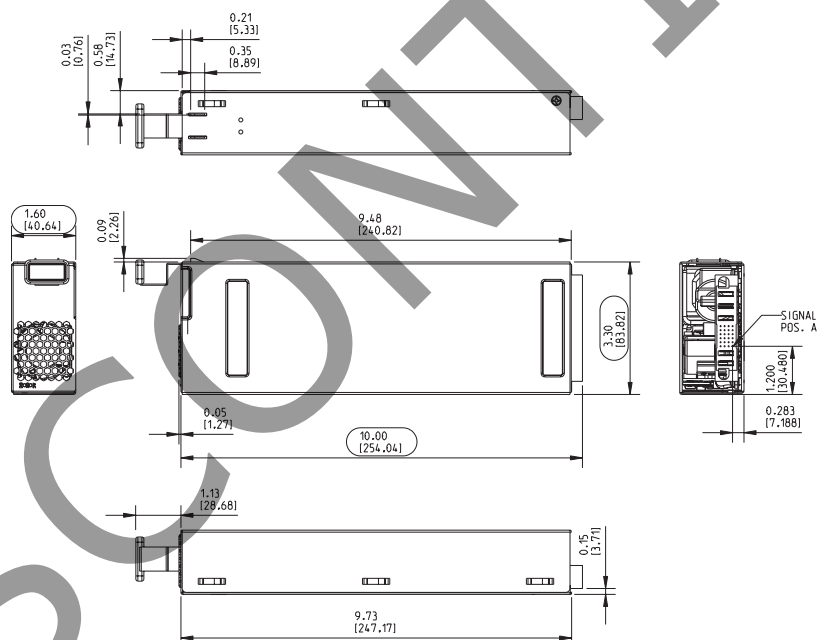
parameter	conditions/description	min	typ	max	units
operating temperature		0		55	°C
storage temperature		-40		85	°C

**MECHANICAL**

parameter	conditions/description	min	typ	max	units
dimensions	10.00 x 3.30 x 1.60 (254.0 x 83.8 x 40.6 mm)				inches
cooling / airflow	integral high performance 38 mm fan air inlet at face; exhaust at connector				
input / output connector	FCI P/N 51939-420LF mates with FCI P/N 51762-10602000AALF				
hot-swap capability	fully hot-swappable, blind mate connector				

**MECHANICAL DRAWING**

units: inches [mm]  
 tolerance:  
 X.XX ±0.02 [0.50]  
 X.XXX ±0.010 [0.25]

**INPUT / OUTPUT CONNECTOR**

Pins	Function	Pins	Function	Pins	Function	Pins	Function	Pins	Function	Pins	Function	Pins	Function
P1	+54 V	A1	+V1 Sense	A2	EEPROM A0	A3 <sup>1</sup>	N/C	A4	AC OK	A5	Signal Return	A6	+3.3 VSB Return
P2	-54 V	B1	-V1 Sense	B2	EEPROM A1	B3 <sup>1</sup>	N/C	B4	DC OK	B5	EEPROM Clock SCL	B6	+3.3 VSB Adj.
P3	FG	C1	ISHARE	C2	EEPROM A2	C3 <sup>1</sup>	N/C	C4	PS_PRESENT	C5	EEPROM Data (SDA)	C6	Spare
P4	AC Neutral	D1	V Program	D2	N/C	D3 <sup>1</sup>	N/C	D4	OTP OK	D5	+3.3 VSB	D6	Enable (short pin)
P5	AC Line	--	--	--	--	--	--	--	--	--	--	--	--

Note: 1. POE Isolation Barrier - No traces to be routed between these pins and any others.

## REVISION HISTORY

rev.	description	date
1.0	initial release	05/06/2015
1.01	updated datasheet	06/10/2016

The revision history provided is for informational purposes only and is believed to be accurate.

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