

SERIES: PSE-1800 | **DESCRIPTION:** AC-DC HOT-SWAP POWER SUPPLY

FEATURES

- up to 1800 W continuous power
- 1U package
- I²C communication for monitoring and control
- redundant (N+1) operation
- blind mate connections for hot-swap
- power factor correction
- 3.3 Vdc (0.5A) standby voltage
- DROOP current sharing
- single I/O connector for AC input, DC output & signals
- remote on/off control, power good signal



MODEL	output voltage	output current max	output power ^{1,2} max	ripple and noise max	efficiency ³ typ
	(Vdc)	(A)	(W)	(mVp-p)	(%)
PSE-1800-48	48	37.5	1800	480	85

Notes: 1. At 90~180 Vac input, maximum of 1000 W.
 2. At 180~264 Vac input, maximum of 1800 W.
 3. At 90 Vac input.

PART NUMBER KEY

PSE-1800 - 48 - 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, full load			11	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
regulation			±3		%
transient response	25% step load, recovery to 1% within 1 ms, slew rate 1 A/μs			3	%
hold-up time	at 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				50	mVp-p
regulation			±5		%

STATUS & CONTROL

parameter	conditions/description	min	typ	max	units
I ² C interface	SCL 1000 kHz clock rate SDA data line				
remote sense	main ooutput				
remote enable	"active low" enables main output, last-mate / first-break enable pin				
current share	droop share				
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	110		60 120	Vdc %
over current protection	followed by 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 EN60950-1, CE (LVD)				
emissions	FCC 15 Sub Part J, Class A, EN55022 Class A, VCCI 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

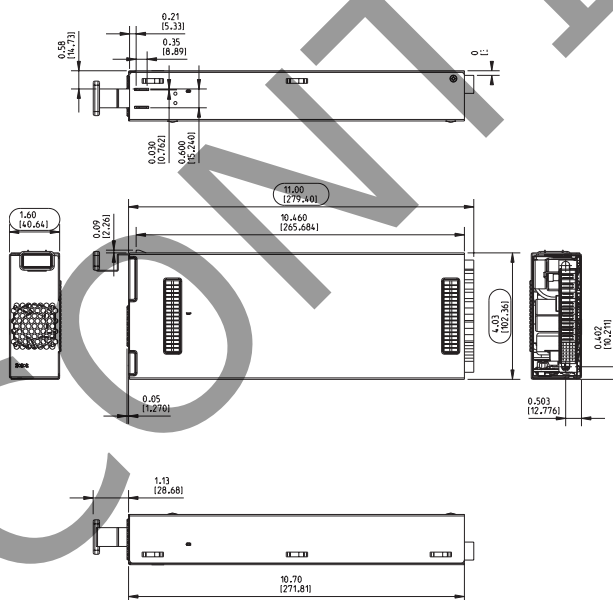
parameter	conditions/description	min	typ	max	units
operating temperature		0		55	°C
storage temperature		-40		85	°C

MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	11.00 x 4.00 x 1.60 (279.4 x 101.6 x 40.6 mm)				inches
cooling / airflow	internal high performance 38 mm fan, air inlet at face; exhaust at connector				
input / output connector	FCI P/N 51939-531LF mates with FCI 51915-299LF				
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
P1	No Blade	A1	+V Sense	B1	ISHARE	C1	-V Sense	D1	Reserved
P2	+48 V	A2	V Pgm	B2	I ² C Address A0	C2	I ² C Address A1	D2	I ² C Address A2
P3	+48 V	A3	Reserved	B3	Reserved	C3	Reserved	D3	Reserved
P4	No Blade	A4	AC_OK_L	B4	DC_OK_L	C4	PS_Present_L	D4	OTP_OK_L
P5	-48 V	A5	Signal Return	B5	I ² C SCL	C5	I ² C SDA	D5	+3.3 VSB
P6	-48 V	A6	-3.3 VSB	B6	Reserved	C6	Reserved	D6	Remote_On_L (short pin)
P7	Earth	--	--	--	--	--	--	--	--
P8	Neutral	--	--	--	--	--	--	--	--
P9	Line	--	--	--	--	--	--	--	--

REVISION HISTORY

rev.	description	date
1.0	initial release	05/07/2015

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



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