CUI INC®

SERIES: PSE-850 | **DESCRIPTION:** AC-DC HOT-SWAP POWER SUPPLY

FEATURES

- up to 850 W continuous power
- 1U x 2U package
- I^2C communication for monitoring and control
- front panel IEC-320/C14 inlet
- redundant (N+1) operation
- blind mate connections for hot-swap
- power factor correction
- 3.3 Vdc (1A) standby voltage
- DROOP current sharing
- remote on/off control, power good signal
- efficiency up to 89%

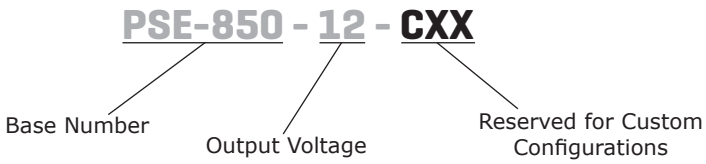
RoHS

MODEL

MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise max (mVp-p)	efficiency[1] typ (%)
PSE-850-12	12	71	850	120	89

Notes: 1. At 230 Vac input, 50% load.

PART NUMBER KEY



INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		50		60	Hz
current	at 90 Vac			12	A
inrush current	at 230 Vac, cold start, 25°C			20	A
leakage current				1.5	mArms
power factor correction		0.95	0.99		

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			2	%
start-up time	monotonic start-up <150 ms			5	s
hold-up time	at 115 Vac, full load	12			ms

OUTPUT - V2 (STANDBY OUTPUT)

parameter	conditions/description	min	typ	max	units
output voltage			3.3		Vdc
output current		0		1	A
ripple and noise				50	mVp-p

STATUS & CONTROL

parameter	conditions/description	min	typ	max	units
I^2C interface					
remote sense	total drop (main output)			250	mVdc
remote ON/OFF	logic level low to enable module				
current share	slope share for main (single wire control), ±10% accuracy at >20% load passive current share for V2		300		mV
parallel operation	hot-swap, N+1 redundant				
redundant operation	integral isolation devices				
PS present	referenced to logic return				
LED indicator	AC OK: open collector type				
	DC OK: open collector type				
over temp. warning	open collector type				

PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	V1: latch off V2: latch off			15 4	Vdc Vdc
over current protection	V1: auto recovery V2: zener diode/foldback	110		135 3.5	% A
over temperature protection	output shut down, auto recovery				

SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
safety approvals	cTUVus UL60950-1 (pending), CE (pending)				
emissions	FCC 15 Sub Part J, Class A, EN55022 Class A				
harmonic compliance	EN61000-3-2:2009 Class A				

SAFETY & COMPLIANCE (CONTINUED)

parameter	conditions/description	min	typ	max	units
surges (mains)	IEC/EN 61000-4-5				
voltage dips/interruptions	IEC/EN 61000-4-11				
RoHS	2011/65/EU				

ENVIRONMENTAL

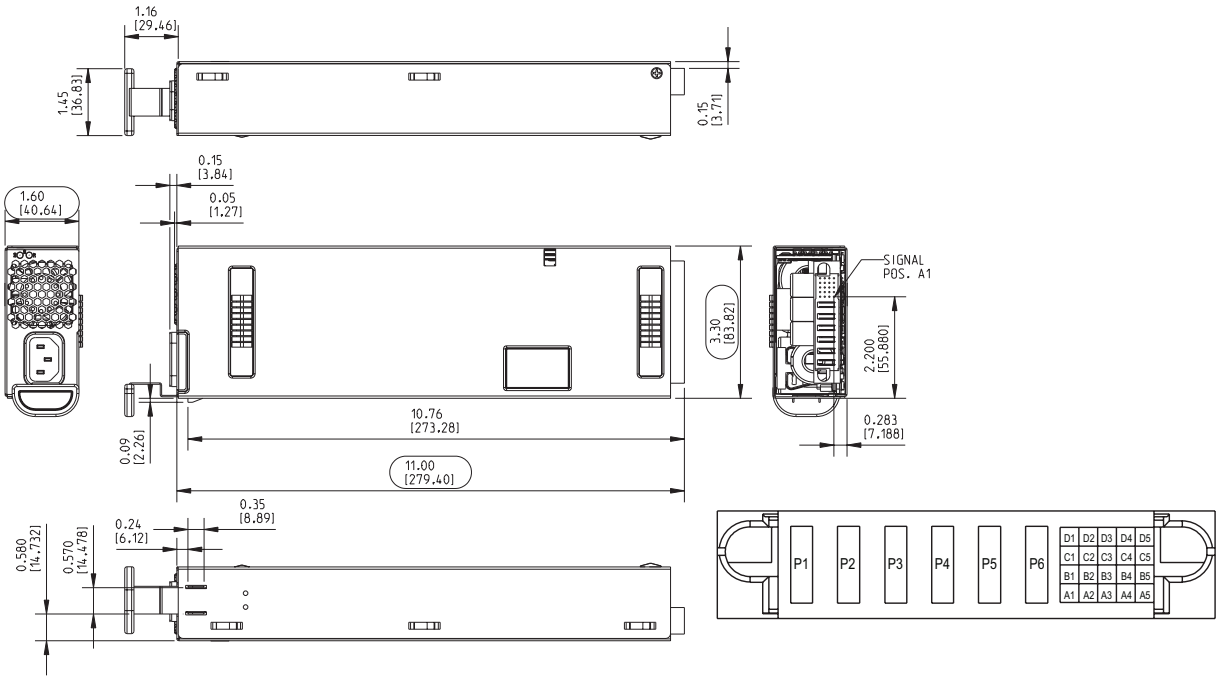
parameter	conditions/description	min	typ	max	units
operating temperature	at 90~132 Vac at 180~264 Vac	0 0		45 50	°C °C
storage temperature		-40		85	°C

MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	11.00 x 3.30 x 1.60 (279.4 x 83.8 x 40.6 mm)				inches
cooling / airflow	air flow from internal ball bearing fan, faceplate to DC connector directional airflow				
AC input	IEC320/C14				
DC output	FCI P/N 51732-020LF mates with FCI P/N 51762-10602000AALF				

MECHANICAL DRAWING

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



DC OUTPUT/SIGNAL CONNECTOR									
Pins	Function	Pins	Function	Pins	Function	Pins	Function	Pins	Function
P1	+12 V	A1	Remote Enable	B1	A0 (I^2C)	C1	+12 V Sense	D1	OTP & Fan Fail
P2	+12 V	A2	+3.3 VSB	B2	A1 (I^2C)	C2	Sense Return	D2	Reserved
P3	+12 V	A3	3.3 VSB Return	B3	A2 (I^2C)	C3	N/A	D3	Signal Return
P4	-12 V	A4	AC OK	B4	SDA (I^2C)	C4	N/A	D4	DC OK
P5	-12 V	A5	N/C	B5	SCL (I^2C)	C5	Current Share	D5	PS Present
P6	-12 V	--	--	--	--	--	--	--	--

REVISION HISTORY

rev.	description	date
1.0	initial release	05/06/2015

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

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