SERIES: VPF-S800-XXR-N | DESCRIPTION: AC-DC POWER SUPPLY

FEATURES

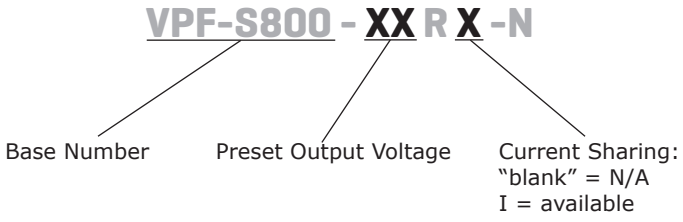
- current monitoring and remote voltage adjustments (margin)
- short circuit, overload, and over voltage
- current sharing

MODEL	preset voltage	output voltage[1,2,3]		output current	ripple and noise[4,5]	output power[6,7]	efficiency
		min	max	max	max	max	typ
	(Vdc)	(Vdc)	(Vdc)	(A)	(% Vp-p)	(W)	(%)
VPF-S800-12R-N	12	12	14	62.5	±1	750	80
VPF-S800-15R-N	15	15	19	50	±1	750	83
VPF-S800-24R-N	24	20	26	40	±1	800	83
VPF-S800-36R-N	36	27	36	29.63	±1	800	83
VPF-S800-40R-N	40	37	47	21.62	±1	800	83
VPF-S800-48R-N	48	48	60	16.67	±1	800	83

Notes:

1. customer must specify output voltage
2. output is fully isolated
3. output voltage is measured at output power connector
4. 1% minimum load is required to maintain the ripple and regulation
5. Ripple and noise is measured from 10 KHz to 20 MHz at output terminals with a 0.1 µF ceramic capacitor and a 22 µF electrolytic capacitor in parallel.
6. provides peak power of 900 W within 500 µs for all models
7. must use external forced airflow min. 30 CFM to achieve maximum power.

PART NUMBER KEY



INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		47		63	Hz
current	at 90-264 Vac, full load			12	A
inrush current	230 Vac, full load, cold start			70	A
input fuse	Built-in ac fuse. A blown fuse usually indicates permanent damage to the power supply serviceable by factory only.				
power factor correction	at 230 Vac, full load			0.98	

OUTPUT

parameter	conditions/description	min	typ	max	units
total regulation			±1		%
transient response	Output voltage returns to within 1% in less than 2.5 ms for a 50% load change. Peak transient does not exceed 5%.				
overshoot	Turn-on and turn-off overshoot shall not exceed 5% over nominal voltage.				
turn-on delay	at 230 Vac			1.5	s
hold-up time	at 80% load	20			ms
adjustment range	output user adjustable		±5		%
remote sense[1]	Designated as RS+ and RS- on CN3. Total voltage compensation for cable losses with respect to the main output.				
remote on/off	Defined RSW on CN3, requiring a TTL low signal to inhibit output.				
LED display (LED 1)	Green - the power supply is operating normally. Orange - when any protection occurs or Remote Inhibit is in effect.				
power good	Designated as PG on CN3, signal goes high 100~500 ms after the output reaches regulation, goes low at least 1 ms before loss of regulation.				
current sharing	Designated as CSH on CN3, optional single wired for forced surrent sharing function and parallel up to 4 units within 10% accuracy at full load.				
current monitor	Designated as CMN on CN3 for current sense, 0.5~3 Vdc to represent 0~100% output current.				

Notes: 1. not available for current sharing models

PROTECTIONS

parameter	conditions/description	min	typ	max	units
input under voltage protection	Power supply shuts down when ac input is under 80 ±5 Vac. When ac line reappears over 86 ±5 Vac, the power supply restarts automatically.				
over voltage protection	shutdown and latches, ac input reset required to restart			130	%
over current protection	auto recovery	110		140	%Io
short circuit protection	continuous auto recovery upon removal of short				

SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	primary to secondary at 10 mA for 3 seconds primary to transformer core at 10 mA for 3 seconds primary to earth ground at 10 mA for 3 seconds	3,000 1,500 1,500			Vac Vac Vac
safety approvals	UL 60950-1				
EMI/EMC	EN 55022 Class B conducted/radiated, EN 61000-3-(2,3), EN 55024, IEC 61000-4-(2,3,4,5,6,8,11)				
leakage current	at 264 VAC			2	mA
grounding test	allowable resistance measured when 25 A current is applied from the ground pin of the three prong plug to the farthest earthed connection point.			0.1	Ω
RoHS compliant	yes				
MTBF	according to MIL-HBK-217F at 30°C	100,000			hours

ENVIRONMENTAL

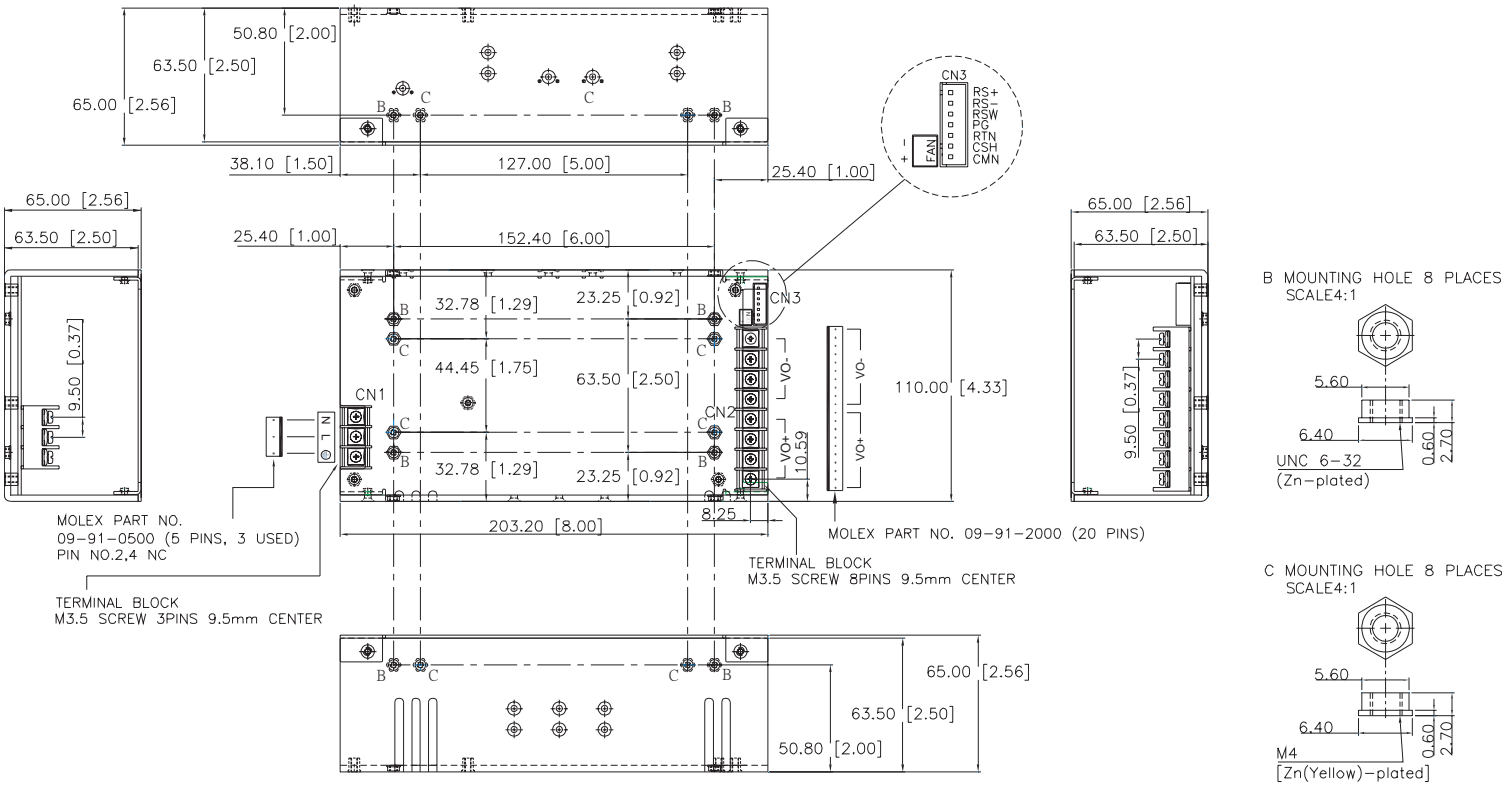
parameter	conditions/description	min	typ	max	units
operating temperature	derating linearly at 2.5% from 50~70°C	0		70	°C
storage temperature		-20		85	°C
operating humidity	non-condensing	5		90	%RH
storage humidity	non-condensing	5		95	%RH

MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	8 x 4.33 x 2.56 (203.2 x 109.98 x 65 mm)				inch
weight				1.45	kg
Mounting holes	Two sets of 8 threaded mounting holes available on the enclosure. B: 6-32, maximum insertion depth of 0.2 inches. C: M4, maximum insertion depth of 0.2 inches.				

MECHANICAL DRAWING

units: inches (mm)
tolerance: inches: x.xx = ±0.006
mm: x.xx = ±0.15



INPUT CONNECTOR (CN1)	
Molex 26-48-1201 or similar (option 1)	Howder HD-121-3P (option 2)
Molex 09-91-0500 or equivalent	Suggested mating connector Molex 19198-0045 or similar

OUTPUT CONNECTOR (CN2)			
Molex 26-48-1201 or similar. (option 1)		Howder HD-121-8P (option 2)	
Suggested mating connector: Molex 09-91-2000, contact:08-50-0106 or similar.		Suggested mating connector Molex 19198-0045 or similar	
PIN	FUNCTION	PIN	FUNCTION
1~10	+Vo	1~4	+Vo
11~20	-Vo	5~8	-Vo

LOGIC CONNECTOR (CN3)		FAN
JS B7B-XH-A		JST B2B-XH-A
Suggested mating connector JST XHP-7 or equivalent Contact: SXH-001T-P0.6		Suggested mating connector JST XHP-2 or equivalent, Contact: SXH-001T-P0.6
PIN	FUNCTION	
1	CMN - Current Monitoring	
2	CSH - Current Sharing	
3	RTN - return	
4	PG - power good signal	
5	RSW - remore on/off	
6	RS- - remote sense (-)	
7	RS+ - remote sense (+)	

REVISION HISTORY

rev.	description	date
1.0	initial release	12/12/2007
1.01	new template applied, V-Infinity branding removed	08/28/2012
1.02	TUV EN 60950-1 safety removed	06/18/2014

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

CUI INC®

Headquarters
20050 SW 112th Ave.
Tualatin, OR 97062
800.275.4899

Fax 503.612.2383
cui.com
techsupport@cui.com