Wall Industries, Inc.

PSRL9802OS Series
200 Watt Single Output
N + 1 Parallel Redundancy
AC/DC Switching Power Supply

FEATURES

- **2 Year Warranty**
- **Optional Top Cover**
- **N+1 Parallel Redundancy**
- **AC Input Range Auto-Selectable**
- **Approved to UL CUL TUV CB and CE**
- **Power Factor Corrected to EN61000-3-2 Class A**
- **Compact 1U Height & Power Density: 5.16 Watts/cu in**
- **Providing Peak Power 600W within 500uS Duty Duration**



6.8(L) x 3.8(W) x 1.5(H) inches.

SPECIFICATIONS: ***PSRL9802OS Series***	
All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted. We reserve the right to change specifications based on technological advances.	
INPUT SPECIFICATIONS	
Input Voltage	90 - 132 / 180 - 264vac, Auto-Selectable.
Input Frequency	47 to 63Hz
Input Current	5 / 2.5A at 115 / 230 VAC.
Inrush Current	Max. 70A @ 230VAC and 35A @ 115VAC; cold start.
Leakage Current	1.5mA @ 240VAC.
Remote On/Off	Designated as **REMO** on the CN3. Requires a low signal to inhabit output; Hiccough mode.
OUTPUT SPECIFICATIONS	
Output Voltage	See Table
Output Power Range	200 Watts max with airflow. (See Notes 3 and 4)
Output Adjustability	Output user adjustable ±5% minimum.
Total Regulation	±1%
Output Current	See Table
Ripple & Noise (peak to peak)	±1%
Transient Response	Output voltage returns to within 1% in less than 2.5ms for a 50% load change, peak does not excess 5%.
Hold-Up Time	20ms min. at 120VAC and 80% of full load.
Overshoot	Turn on-off overshoot < 5% over nominal voltage.
Turn On Delay	1 second maximum at 120VAC.
PROTECTION	
Over Voltage Protection	Unit latching down when output exceeds 130% and recycle AC input to reset.
Short Circuit Protection	Trip without damage and auto-recovery.
Over-Temperature Protection	Unit protected of excessive operating ambient 85°C, and automatic recovery.
Over Load Protection	Fold back mode 110-135%; auto-recovery.
Input Circuit Protection	One T5A/250V fuse inserted in primary.
GENERAL SPECIFICATIONS	
Switching Frequency	25KHz fixed frequency.
Efficiency	70% for 3.3V, 75% for 5V, 80% for 12V, and 83% min. for other outputs (Measuring at 230VAC and full load).
Withstand Voltage	1500 VAC input line to chassis (10mA cut off current), 3000VAC primary to secondary, and 1500VAC primary to core. All for 3 sec.
Burn In	Applying 230VAC for input voltage. Applying full load for this product in 45 ±5°C burn-in room for one hour.
PFC	Power factor correction pass EN61000-3-2 Class A (total parallel output power not exceed 200W).
Power Good	Designated as **PG** on the CN3 will go high 100-500ms after regulation and goes low 1ms before loss of regulation.
Power Supply On	Green LED designated as **LED1** on the PCB.
Grounding Test	Apply 25A from ground pin of the three prong plug to the far most earth. Max. allowable resistance is 0.1 ohm.

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SPECIFICATIONS (CONTINUED)	
ENVIRONMENTAL SPECIFICATIONS	
Operating Temperature	0°C to +40°C
Storage Temperature	-20°C to +85°C
Operating Humidity	5% to 90% RH, non-condensing
Storage Humidity	5% to 95% RH, non-condensing
Vibration	Frequency 5 ~ 50Hz, acceleration ±7.35 m/(s x s) on X, Y, and Z axis.
Cooling	200W max with 18.7CFM airflow or 150W max under convection cooling.
Fan Drive	12VDC/300mA is available to drive an external fan.
MTBF	100,000 hours (according to MIL-HBK-217F) at 30°C.
PHYSICAL SPECIFICATIONS	
Weight	600 grams
Dimensions	U-Chassis Type Enclosure: 6.8(L) x 3.8(W) x 1.5(H) inches.
Warranty	2 years
SAFETY	
EMC Standards	CISPR 22 / EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN55024 CE Marked (LVD).
Safety Regulations	Approved to UL60950-1, CSA C22.2 No. 60950-1, TUV EN60950-1, and CB certificate available.

OUTPUT VOLTAGE / CURRENT RATING CHART

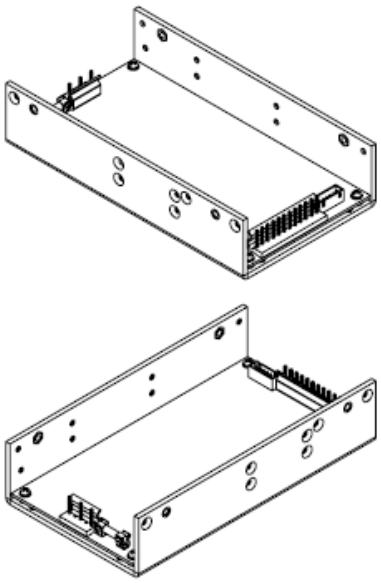
Model	Output Voltage Range	Preset Voltage	Output Current		Regulation	Ripple & Noise
			Convection	With Forced Air		
PSRL9802OSA	3 - 4 VDC	3.3 VDC	22A	30A	±1%	±1%
PSRL9802OSB	5 - 6 VDC	5 VDC	22A	40A	±1%	±1%
PSRL9802OSC	12 - 18 VDC	12 VDC	12.5A	16.67A	±1%	±1%
PSRL9802OSD	24 - 30 VDC	24 VDC	6.25A	8.33A	±1%	±1%
PSRL9802OSE	48 -56 VDC	48 VDC	3.13A	4.17A	±1%	±1%
PSRL9802OS36	32 -46 VDC	36 VDC	4.17A	5.56A	±1%	±1%

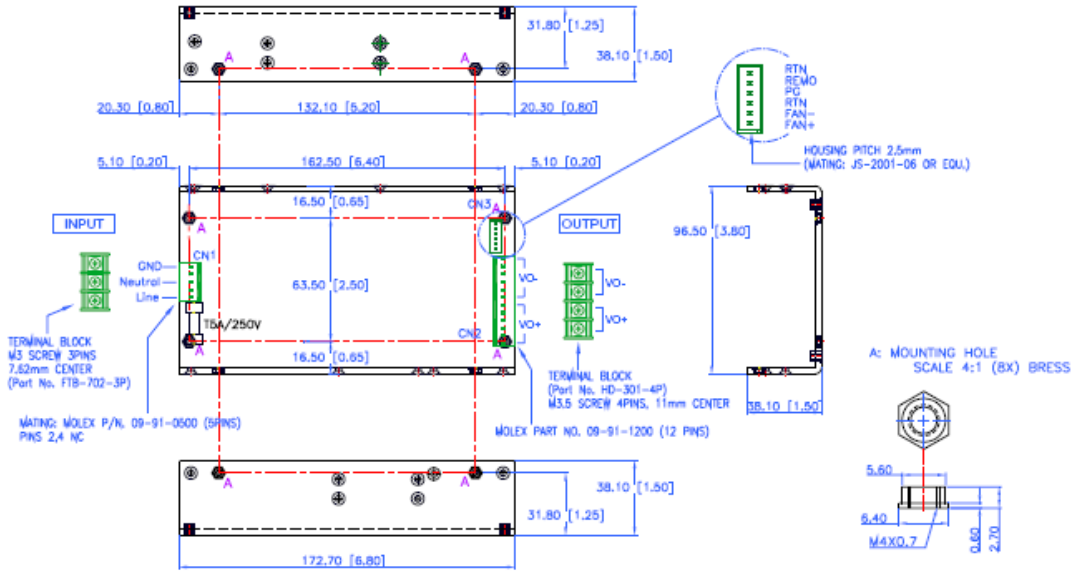
NOTES

1. All output ranges are covered in agency certifications and the preset voltage will be set as standard models. If any request is not standard output, then please contact us in advance.
2. 1% minimum load is required to maintain the ripple and regulation.
3. Maximum 200W continuous output, with minimum 18.7 CFM forced ventilation.
4. Maximum 150W continuous output with air convection, except PSRL9802OSA and PSRL9802OSB which Power is limited to 22A.
5. Ripple and noise is measured from 10KHZ to 20MHz bandwidth at output terminals with parallel 0.1uF ceramic and 22uF electrolytic capacitors.
6. All series N+1 parallel redundancy.
7. Optional top cover available. Please call factory for ordering details.

MECHANICAL DRAWINGS

Overall size: 6.8(L) x 3.8(W) x 1.5(H) inches; Weight: 600g. (Optional Top Cover)





OUTPUT PIN CONNECTION	
Howder	**Molex**
Vo+: Pins 1 – 2	**Vo+:** Pins 1 – 6
Vo-: Pins 3 – 4	**Vo-:** Pins 7 – 12

I/O CONNECTOR PIN ASSIGNMENT

AC Input Connector (CN1):
Mating Molex Part No. 09-91-0500 or equivalent (5 pin,3 used) PCB is Labeled: L = Line; N = Neutral; G = Chassis Ground Mating Pins; Molex Engineering Series 2478, 2578, 8818 or Howder Terminal block Part No. FTB-702-3P (3 pin).

Output Connector (CN2):
Mating Molex Part No. 09-91-1200 (12 pin), or Howder Terminal block Part No. HD-301-4P (4 pin).

Output Pin Assignment:
See Output Pin Connection table above.

Logic signal connector (CN3):
Mating JST XHP-6 or equivalent (CHYAO SHIUNN JS-2001-06).
Mating Pins: JST SXH-002T-P0.6 FOR AWG 30 to 26.

Mounting Inserts:
8 Places M4. Maximum Penetration 4mm see outline drawing for location.