



## PSP319 POWER SUPPLY

### SERIES PSP319

The PSP319 Series industrial quality AC/DC power supply with power factor corrected input uses a field proven design to generate 450W output power.

It has an excellent track record in numerous applications.

Cooling is via base plate to a heatsinking surface and by natural convection.

Low component count, large design headroom, and the use of components with established reliability result in a high MTBF.

The unit is manufactured at our plant under strict quality control.

Customized versions are also available.

### APPLICATIONS

- Marine / Automotive / RV
- Electric Utilities and Substations
- Telecom Power Plants
- Manufacturing Locations
- Steel Mills
- Military Applications (COTS)
- Industrial Controls
- OEM Applications
- Solar / Alternative Power Systems
- Fuel Cells

### FEATURES

- 450W output power
- Rugged industrial quality
- Inrush current limiting
- Over-temperature shutdown (self resetting)
- Field-proven design
- Conduction cooling
- Full electronic protection
- Optional N+1 redundancy



High frequency technology



Light weight, compact size



Full electronic protection



Optional Extended temperature range



Output fail alarm (Form C)

# SPECIFICATIONS

Input Voltage	90-264Vac, 47... 63Hz Power Factor is min.0.97 at full load for the entire input range. Meets EN61000-3-2
Input Protection	Inrush current limiting Varistor Internal safety fuse Lower voltage than the specified minimum input will not damage the unit
Isolation	2250VDC input to chassis 4300VDC input to output 8mm spacing 500VDC output to chassis
Switching Frequency	50-150KHz Boost section (dependent on the load) 55 KHz +/-3KHz for the DC/DC (half-bridge) section
Hold Up Time	Min. 10ms at any input for 5% drop in the output voltage
Output Voltage	12Vdc/37.5A, 24Vdc/18.7A, 48Vdc/9.4A, 54Vdc/8.3A or 125Vdc/3.6A are standard. Consult factory for other voltages
Output Separation Diode	Optional Not available for 12V version
Load/Line Regulation	± 1% combined from zero load to full load
Dynamic Response	Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time
Output Ripple Noise	Less than 1% peak-to-peak or 0.2% RMS of the output voltage (20MHz BW)
Efficiency	Output voltage dependent Typically 80% at full load
Output Overload Protection	Rectangular current limiting with short-circuit protection (no hiccup) Thermal shutdown in case of insufficient cooling (self resetting)
Output Overvoltage Protection	Second regulator loop. Typically set at 120% of nominal output voltage
Standards	Designed to meet corresponding UL and CSA standards, EN 60950, EN 62368-1 and CE
EMI	EN55032 Class A with margins

Operating Temperature	0 to +50°C for full specification, Extended temp. range available
Humidity	5 - 95% non-condensing
Temperature Drift	0.03% per °C over operating temperature range
Cooling	Conduction to customer heat-sink or chassis and natural convection
Environmental Protection	Basic ruggedizing Full ruggedizing and conformal coating on request
Shock/Vibration	IEC 61373 Cat 1 A&B
Dimensions	F4: 130 x 62 x 353 mm including terminal block and flanges. Mounting holes are clear.
Weight	2.2 Kg
Connections	12-pole barrier type terminal block with 3/8" spacing
MTBF	150,000 hours at 45°C Demonstrated MTBF is significantly higher
Indicators	None
Control Input	None
Alarm output	None on standard version Available as an option
RoHS Compliance	Fully compliant
Warranty	2 years

