

## 500 Watt High Temp Industrial Power Supply

### Product Description

This 500 watt, high temperature resistant, single output, ac to dc power supply is designed for applications requiring a very small footprint and can operate in a hostile environment. The operating temperature range is -40° to +85° C through conduction cooling via baseplate.

### Product Features

- Operating Temperature Range: -40° to +85° C (Baseplate)
- Outline Dimensions: 2.0" x 4.0" x 8.5"
- High Efficiency: ~87%
- UL60950-1, CSA60950-1 (cUL), EN60950-1, & CE (LVD)



### AC Input

- Voltage Input Range: 90-264VAC (nominal range)
- Frequency: 47-440Hz
- Phase: Single Phase, 2 wire plus ground
- Inrush Current: <40A (Cold Start at 200Vac)
- Power Factor Correction: .99 minimum, meets EN61000-3-2
- Start-Up Time: <500mSec (Output within regulation)
- Input Surge Voltage: Input transient suppression circuitry to protect power supply from permanent damage.

### Output Selection Guide

Model #:	Voltage	Max Current	Regulation	Ripple
HTIPS500-3.3	3.3Vdc	25.0 Amps	±3%	50mV pk-pk
HTIPS500-5	5.0Vdc	25.0 Amps	±3%	50mV pk-pk
HTIPS500-9	9.0Vdc	25.0 Amps	±1%	120mV pk-pk
HTIPS500-12	12Vdc	25.0 Amps	±1%	120mV pk-pk
HTIPS500-15	15Vdc	25.0 Amps	±1%	150mV pk-pk
HTIPS500-19	19Vdc	21.0 Amps	±1%	150mV pk-pk
HTIPS500-24	24Vdc	20.8 Amps	±1%	240mV pk-pk
HTIPS500-28	28Vdc	17.8 Amps	±1%	240mV pk-pk
HTIPS500-36	36Vdc	13.8 Amps	±1%	240mV pk-pk
HTIPS500-48	48Vdc	10.4 Amps	±1%	240mV pk-pk

**Note: Alternate output voltages are available, consult factory for availability.**

## DC Output Characteristics

- Line Regulation:  $\pm 1.0\%$  typical
- Load Regulation:  $\pm 0.50\%$  typical (No load to full load; nominal input)
- Output Ripple/Noise: 1% typical (P-P; nominal input; full load; 20MHz bandwidth)
- Set Point Accuracy:  $\pm 2.0\%$  of output voltage (Nominal input; full load; 25°C)
- Transient Response: 3% 250 uSec recovery to 1% for 25% step load range from 75% to 100%
- Overshoot: Turn-on and turn-off overshoot should not exceed 5% over nominal voltage.

## Electrical Characteristics

- Efficiency: 91% Minimum (Measuring at 115Vac and full load)
- Turn On Delay: 1 second maximum at 115 Vac
- Hold-Up Time: None
- Isolation Voltage:
  - Input to Output: 3000Vrms
  - Input to Baseplate: 2500Vrms
  - Output to Baseplate: 1500Vrms
- Isolation Resistance: 10Mohms (Output to baseplate), 25°C ambient 70%RH
- Temperature Regulation:  $\pm 2.0\%/^{\circ}\text{C}$  ( $\pm 0.005\%/^{\circ}\text{C}$  max; over operating temp range)

## Protection

- Over Current Limit: 105-140% of full load (Automatic recovery)
- Over-Voltage Protection: 125-145% of nominal output voltage (Latching)
- Short Circuit: Continuous. Auto-Recovery after short circuit condition is removed.
- Over temperature Protection: The power supply is protected for over temperature conditions with thermal shutdown. Auto-Recovery when temperature returns to normal.

## Environmental

- Operating Temperature: -40° to +85° C (Baseplate)
- Storage Temperature: -40° to 100° C
- Operating Humidity: 20% to 95% RH, Non-condensing
- Storage Humidity: 10% to 95% RH, Non-condensing
- Operating Altitude: Sea-level to 20,000 ft. in pressurized environment
- Vibration: Operating: 15g-RMS, random, tri-axial vibration for 1 hr
- Shock: Operating: 5G, half sine, 11msec, 3 axes. Non-Operating: 15G, half sine, 11msec, 3 axes.
- Conducted EMI: FCC Class B & EN 55022 Class B compliant
- Safety Certifications: cUL (UL60950-1/CSA60950-1), TUV (EN60950-1) & CE (LVD)
- Cooling: Conduction

## Mechanical

- Outline Dimensions: 2.0" X 4.0" X 8.4" (H X W X L)
- Weight: ~6.5 oz. (185 grams)
- I/O Connectors: Terminal pins

## Optional Control and Alarms

- Output Inhibit

## Notes

- Product specifications subject to change without notice. All rights reserved.
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## Outline Drawing

