

## 200 Watt High Temp Industrial Power Supply

### Product Description

This 200 watt, single output, high temp, low profile, ac to dc power supply is designed for applications requiring a very narrow profile and can operate in an extreme environment. The operating temperature range is -45° to +85° C (baseplate). This 200 watt industrial power supply can operate in an IP65/IP67 rated enclosure without airflow.

### Product Features

- Calculated MTBF: >500,000 hours
- Operating Temperature Range: -45° to +85° C (Baseplate)
- Compact Size: 1.4" x 2.5" x 4.7"
- High Efficiency: ~88%



Image displays unit with EMI filter & control board

### AC Input

- Voltage Input Range: 90-264VAC (nominal range)
- Frequency: 47-440Hz
- Phase: Single Phase, 2 wire plus ground
- Input: Current: 2.3A (110VAC), 1.2A (220Vac) Typical
- Inrush Current: 20A (110VAC), 40A (220VAC)
- Power Factor Correction: .98 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

Maximum Output Power: 200 Watts\*

Model #:	Voltage	Max Current	Regulation	Ripple
HTIPS200-3.3	3.3Vdc	25 Amps	±3%	50mV pk-pk
HTIPS200-5	5.0Vdc	25 Amps	±3%	50mV pk-pk
HTIPS 200-9	9.0Vdc	16 Amps	±1%	120mV pk-pk
HTIPS200-12	12Vdc	12 Amps	±1%	120mV pk-pk
HTIPS200-15	15Vdc	10 Amps	±1%	150mV pk-pk
HTIPS200-19	19Vdc	10 Amps	±1%	150mV pk-pk
HTIPS200-24	24Vdc	8.3 Amps	±1%	240mV pk-pk
HTIPS200-28	28Vdc	7.1 Amps	±1%	240mV pk-pk
HTIPS200-36	36Vdc	5.5 Amps	±1%	240mV pk-pk
HTIPS200-48	48Vdc	4.1 Amps	±1%	240mV pk-pk

\*Note: Output voltages lower than 19V have been derated.

## DC Output Characteristics

- Line Regulation:  $\pm 1.0\%$  typical
- Load Regulation:  $\pm 0.5\%$  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: 250 uSec recovery to 1% for 25% step load range from 50% to 100%
- Overshoot: Turn-on and turn-off overshoot should not exceed 5% over nominal voltage.

## Electrical Characteristics

- Efficiency: 88% Minimum (Measuring at 115Vac, full load and 25°C)
- Turn On Delay: 1 second maximum at 115Vac
- 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:  $-45^{\circ}$  to  $+85^{\circ}$  C (Baseplate)
- Storage Temperature:  $-50^{\circ}$  to  $100^{\circ}$  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: EN 55022 Class B compliant (May require additional components)
- Designed to meet: cUL (UL60950-1/CSA60950-1), TUV (EN60950-1) & CE (LVD)
- Cooling: Conduction, baseplate not to exceed 85°C for full rated output

## Mechanical

- Outline Dimensions: 1.4" X 2.5" X 4.7" (H X W X L)
- Weight: ~6.5 oz. (185 grams)
- Input Connector: 2 pin terminal posts
- Output Connector: 10 pin terminal posts

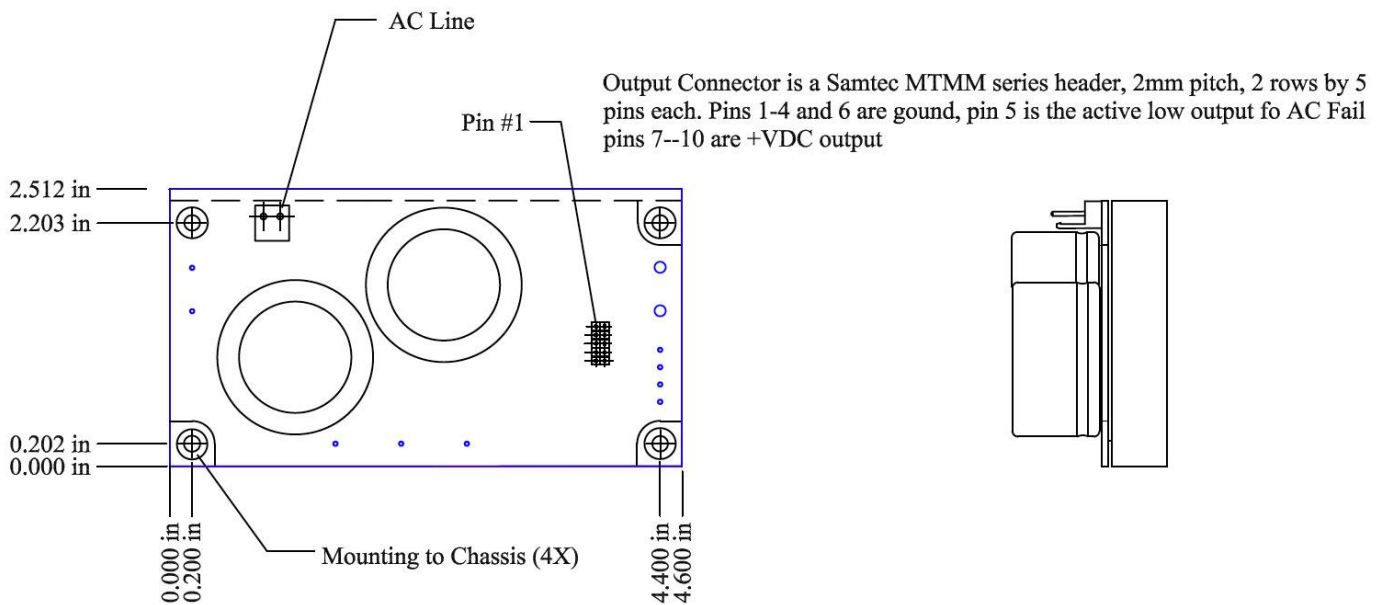
## Optional Control and Alarms

- AC Power Fail

## Notes

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## Outline Drawing



PCB .09 thk FR4

