

300 Watt High Temp Industrial Power Supply

Product Description

This 300 watt, single output, high temp, low profile, ac to dc power supply is designed for applications requiring a small profile and can operate in an extreme environment. The operating temperature range is -45° to +85° C (baseplate). This 300 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)
- Small Footprint: 1.5" 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
- Inrush Current: <40A (Cold Start at 200Vac)
- Power Factor Correction: .95 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
HTIPS300-3.3	3.3Vdc	25.0 Amps	±3%	50mV pk-pk
HTIPS300-5	5.0Vdc	25.0 Amps	±3%	50mV pk-pk
HTIPS300-9	9.0Vdc	25.0 Amps	±1%	120mV pk-pk
HTIPS300-12	12Vdc	25.0 Amps	±1%	120mV pk-pk
HTIPS300-15	15Vdc	20.0 Amps	±1%	150mV pk-pk
HTIPS300-19	19Vdc	15.8 Amps	±1%	150mV pk-pk
HTIPS300-24	24Vdc	12.5 Amps	±1%	240mV pk-pk
HTIPS300-28	28Vdc	10.7 Amps	±1%	240mV pk-pk
HTIPS300-36	36Vdc	8.3 Amps	±1%	240mV pk-pk
HTIPS300-48	48Vdc	6.2 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: $\pm 0.5\%$ 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 μ Sec 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: 88% 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: $\pm -2.0\%/^{\circ}\text{C}$ ($\pm .005\%/^{\circ}\text{C}$ 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: 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° to $+85^{\circ}$ C (Baseplate)
- Storage Temperature: -50° to 100° C
- Operating Humidity: 20% to 95% RH, Non-condensing
- Storage Humidity: 10% to 95% RH, Non-condensing
- Operating Altitude: Sea-level to 40,000 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° for full rated output

Optional Control and Alarms

- AC Power Fail

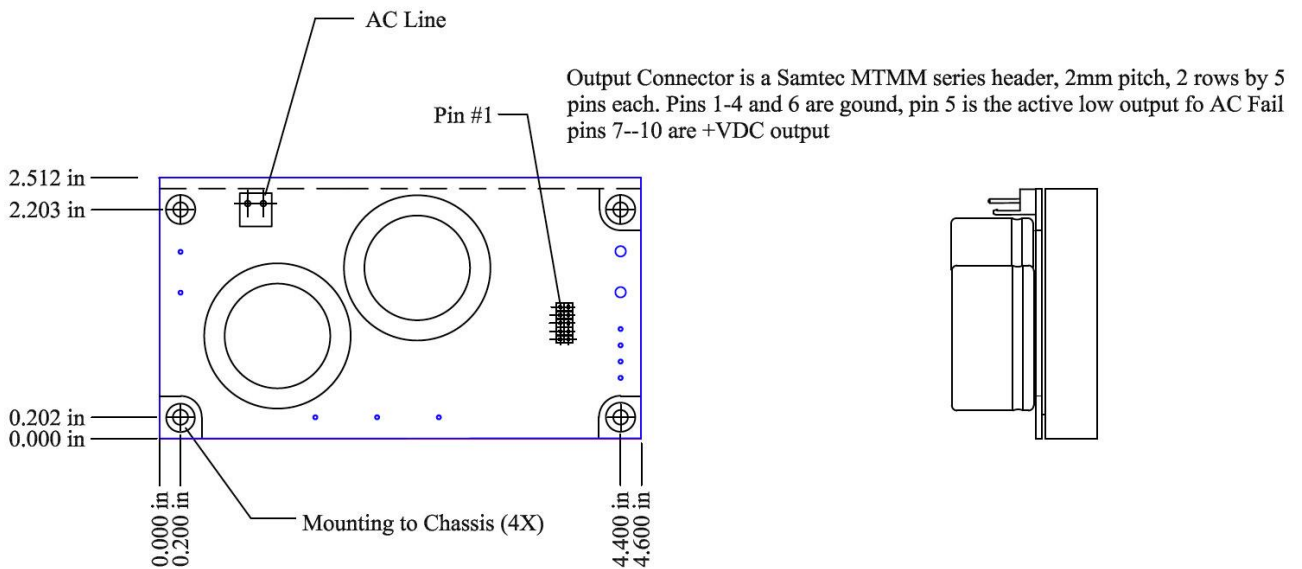
Mechanical

- Outline Dimensions: 1.4" X 2.5" X 4.7" (H X W X L)
- Weight: ~8.5 oz.
- Input Connector: 3 Pin Terminal Post
- Output Connector: Lugs

Notes

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



PCB .09 thk FR4

