

1400 Watt – IP67IPS Series Industrial Grade Power Supply Product Specification

Product Description

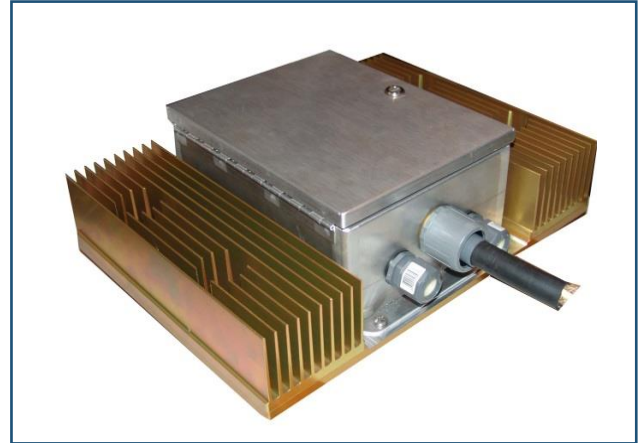
This product is a 1400 watt, single output, industrial grade power supply designed for electronic systems operating in demanding environments with adverse temperature conditions. It is a single phase, AC input power supply in an IP67 rated enclosure designed for remote operations requiring high reliability.

Product Features

- Designed to Meet IP67 Ingress Protection Rating
- Operating Temperature Range: -40° to +85°C
- Baseplate Mounting, Conduction Cooled

AC Input

- Voltage Input Range: 90-264Vac
- Frequency: 50/60/400Hz (47-440Hz)
- Phase: Single Phase, 2 wire plus ground
- Typical Input Current: 14.0A at 115Vac input, full load
- Power Factor Correction: 0.99 @ full load, designed to meet MIL-STD-1399, Section 300A (60Hz)
- Input Transient Protection: Designed to meet MIL-STD-704A/D (80Vdc for 100mSec)
- Input Surge Protection: Designed to meet MIL-STD-1275A/D (100Vdc for 50mSec)



(IPS67IPS1400 Image with Heatsink)

Output Selection Guide

Model #:	Voltage	Max Current	Regulation	Ripple
IP67IPS1400-12	12Vdc	116.6 Amps	±3%	120mV pk-pk
IP67IPS1400-15	15Vdc	93.3 Amps	±3%	150mV pk-pk
IP67IPS1400-24	24Vdc	58.3 Amps	±3%	240mV pk-pk
IP67IPS1400-28	28Vdc	50.0 Amps	±3%	240mV pk-pk
IP67IPS1400-36	36Vdc	38.8 Amps	±3%	240mV pk-pk
IP67IPS1400-48	48Vdc	29.8 Amps	±3%	240mV pk-pk

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

DC Output Characteristics (floating)

- Output Power: 1400 watts (maximum continuous power, may require derating for some low voltage outputs)
- Line Regulation: ±2.0% Typical
- Load Regulation: ±2.0% Typical (No load to full load; nominal input)
- Output Ripple/Noise: 1% Typical (pk-pk; nominal input; full load; 20MHz bandwidth)
- Set Point Accuracy: ±1.0% of Output Voltage (Nominal input; full load; 25°C)
- Transient Response: Output voltage returns to within 1% in less than 2.5mS for a 50% load change and the peak transient does not exceed 5%
- Overshoot: Turn-on and turn-off overshoot should not exceed 5% over nominal voltage
- Holdup Time: 16mS

Electrical Characteristics

- Switching Frequency: 300KHz Fixed
- Efficiency: 88% Typical (Measuring at 115Vac and at full load)
- Turn On Delay: 250 to 500mS (To nominal output voltage)
- Isolation Voltage:
 - Input to Output: 2000Vrms
 - Input to Chassis: 1000Vrms
 - Output to Chassis: 1000Vrms
- Isolation Resistance: 100Mohms (Input to output)
- Temperature Regulation: $\pm 2.0\%/^{\circ}\text{C}$ ($\pm .005\%/^{\circ}\text{C}$ max; over operating temp range)

Protection

- Over Current Limit: 115 to 130%. Auto-recovery after removal of overload condition
- Over-Voltage Setpoint: 108 to 125% of output voltage. Unit latched 1 minute, recycle AC input to reset
- 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: -40° to $+85^{\circ}\text{C}$ (baseplate)
- Storage Temperature: -50° to 100°C
- Operating Humidity: 5% to 90% RH, Non-condensing
- Storage Humidity: 5% to 95% RH, Non-condensing
- Operating Altitude: Sea-level to 10,000 ft.
- Shock & Vibration: Designed to meet MIL-STD-810G
- EMC Radiated & Conducted EMI: Designed to meet EN55022 Level B, CISPR 22 Class B, FCC Part J Class B

Cooling

- Conduction Cooling: Baseplate not to exceed 85°C for full rated output

Mechanical

- Enclosure: Metal chassis, aluminum baseplate and enclosure, non-finish.
- Outline Dimensions: 8.0" X 12.0" X 6.0" (W X L X H) – not including I/O connector
- Weight: ~ 7.0 lbs. (~ 3175 grams) – no heatsink
- AC Input Connector (J1): Amphenol PN RT07144PNH
- DC Output Connector (J2): Amphenol PN RT07144SNH

Optional Features, Controls or Alarms

- Consult Factory

Note

- Product specifications subject to change without notice