**60W, 90-264Vac Input, Single Output, Open-frame Power Supply**

Sales / Technical Support: +1-818-338-7788 Option 3
Email: sales@autecpower.com

# Model: SP60G Series

## Features

- Universal AC input 90~264Vac.
- 4" x 2" miniature size.
- Operation from -20°C ~ 50°C full load.
- Protections: SCP / OVP / OLP..
- No load power consumption < 0.75W.
- 105°C Main electrolytic capacitor.

## Approvals

CE cULus CB

## Size

101.6 * 50.8 * 30 mm(L*W*H)

## Specifications

| Model No. | | SP60G-3.3 | SP60G-05 | SP60G-12 | SP60G-15 | SP60G-24 | SP60G-48 |
|---|---|---|---|---|---|---|---|
| Output | DC Voltage | 3.3V | 5V | 12V | 15V | 24V | 48V |
| | Rated Current | 0-10A | 0-10A | 0-5A | 0-4A | 0-2.5A | 0-1.25A |
| | Rated Power | 33W | 50W | 60W | 60W | 60W | 60W |
| | Ripple & Noise (Max.) Note.2 | 80mV | 80mV | 120mV | 150mV | 200mV | 300mV |
| | Efficiency (Typ.) | 76% | 80% | 83% | 84% | 85% | 86% |
| | Voltage Adjustment Range | 3.15-3.45V | 4.8-5.2V | 11.4-12.6V | 14.2-16V | 23-25V | 45-51V |
| | Voltage Tolerance Note.3 | ±2% | ±2% | ±2% | ±2% | ±1% | ±1% |
| | Rise Time | <30ms at full load. | | | | | |
| | Set up time (Max.) | 500ms/230Vac, 500ms/115Vac, at cold first start. | | | | | |
| | Hold Time (Typ.) | 60ms/230Vac, 13ms/115Vac at full load. | | | | | |
| Input | Voltage Range | 90Vac ~ 264Vac or 127~370Vdc. | | | | | |
| | Frequency Range | 47 ~ 63 Hz. | | | | | |
| | AC Current (Max.) | 1.5A at 115Vac / 1A at 230Vac. | | | | | |
| | Inrush Current (Max.) | 30A at 115Vac / 60A at 230Vac (COLD START). | | | | | |
| | Leakage Current | <0.75mA / 240Vac. | | | | | |
| Protections | Over Load | 115~150% rated output power.<br>Type: Hiccup mode, Recovers automatically after fault condition is removed. | | | | | |
| | Short Circuit | Type: Hiccup mode, Recovers automatically after fault condition is removed. | | | | | |
| | Over Voltage | 3.8-4.3V | 5.75-6.5V | 13.5-15V | 16.9-18.75V | 27-30V | 54-60V |
| | | Type: Latch mode, re-power on to recover. | | | | | |
| Environment | Operation Temp. | -20°C ~50°C full load, 50°C ~70°C (Refer to output load derating curve). | | | | | |
| | Operation Humidity | 20% ~ 95% RH non-condensing. | | | | | |
| | Storage Temp. | -40 ~ +80°C. | | | | | |
| | Storage Humidity | 10% ~ 90% RH. | | | | | |
| | Vibration | 10~500 Hz, 2G 10 min./1 cycle, period for 60 min. each along X, Y, Z axes. | | | | | |

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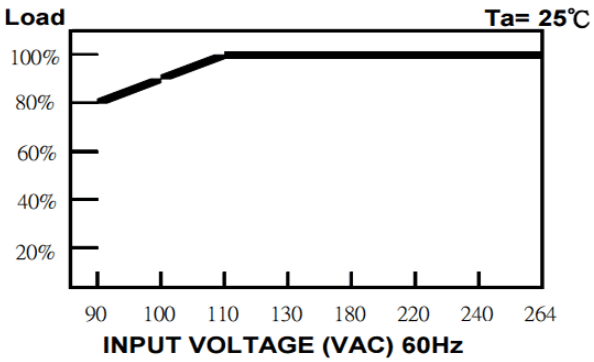
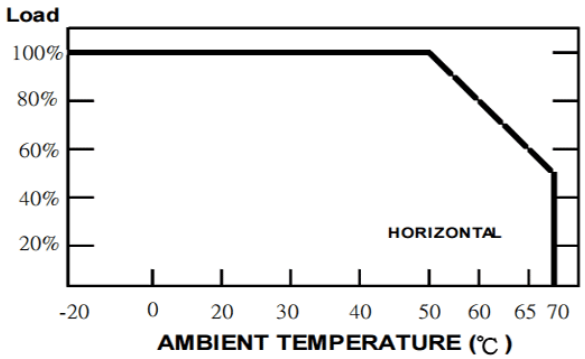
| | | |
|---|---|---|
| Safety & EMC | Withstand Voltage | I/P - O/P: 3 KVAC, I/P - FG: 1.5KVAC, O/P - FG: 0.5KVAC. |
| | Isolation Resistance | 100M ohms / 500Vdc at 25°C : I/P-O/P, I/P-FG, O/P-FG. |
| | EMI Conduction & Radiation | Compliance to EN55022 class B,CISPR22 class B. |
| | Harmonic Current | Compliance to EN61000-3-2,-3. |
| | EMS Immunity | Compliance to EN61000-4-2,3,4,5,6,8,11 Light industry level, criteria A. |
| Others | MTBF | 450K hour's min. MIL-HDBK-217F (25°C). |
| | Dimension(L*W*H) | 101.6 * 50.8 * 30mm |
| | Packing(L*W*H)/ Carton | 525 * 277 * 237mm |
| | Weight | 0.145KG/PCS N.W: 15KG/Carton |
| Note | 1. All specifications not specially mentioned are measured at 230Vac and 25°C ambient temperature. | |
| | 2. Ripple & Noise are measured at 20MHz bandwidth by using a 12" twisted pair-wire terminated with 0.1uf & 47uf parallel capacitor. | |
| | 3. Voltage Tolerance: includes line regulation, load regulation and set-up tolerance. | |
| | 4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. | |
| | 5. Mounting Holes A, B must be grounded for EMI and Safety purposes. | |

## Derating Curve




AC Input Connector (CN1): WST M3-I39606S or Equivalent

| Pin No. | Assignment | Mating Housing | Terminal |
|---|---|---|---|
| 1 | AC/N | WST P3-I39606 or Equivalent | WST I39606PS-2 or Equivalent |
| 2 | AC/L | | |

DC Output Connector (CN2): WST M4-I39606 or Equivalent

| Pin No. | Assignment | Mating Housing | Terminal |
|---|---|---|---|
| 1,2 | +V | WST P4-I39606 or Equivalent | WST I39606PS-2 or Equivalent |
| 3,4 | -V | | |

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## Mechanical Specification