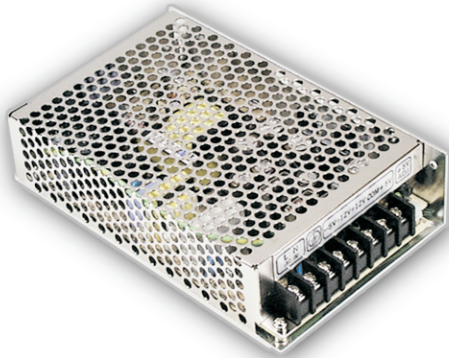


TOTAL POWER INT'L

60W Quad Output Switching Power Supply

Q-60 series



■ Features :

- Universal AC input / Full range
- Protections: Short circuit/Over load/Over voltage
- Cooling by free air convection
- LED indicator for power on
- Fixed switching frequency at 35KHz
- 2 years warranty

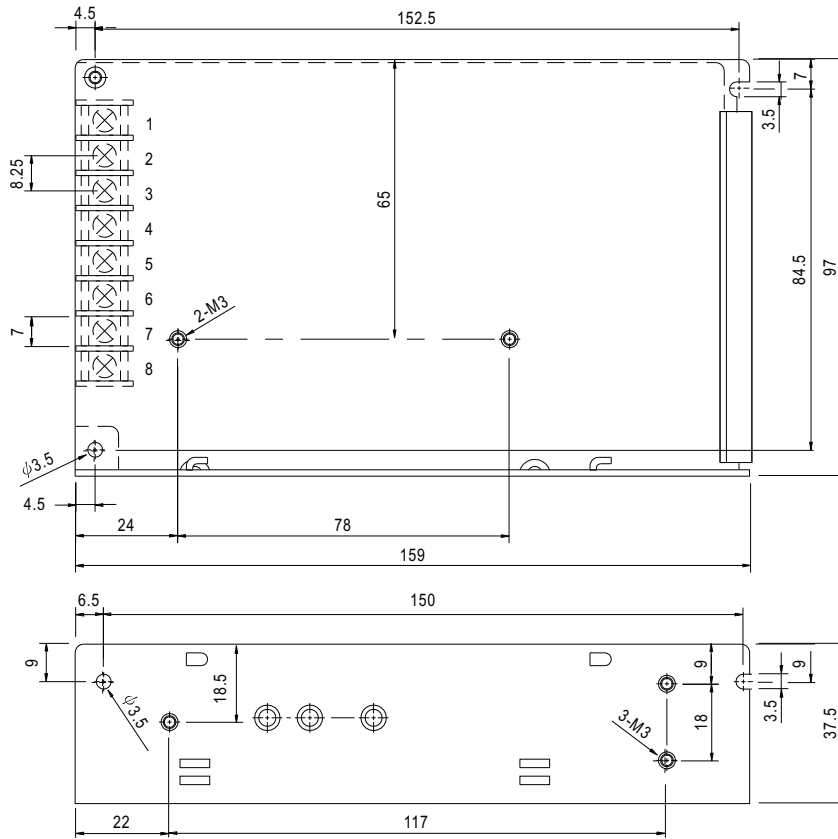


SPECIFICATION

| MODEL | | Q-60B | | | | Q-60C | | | | Q-60D | | | |
|------------------------|---|--|----------|----------|--|------------------|----------|----------|----------|------------------|----------|------------|----------|
| OUTPUT | DC VOLTAGE | 5V | 12V | -5V | -12V | 5V | 15V | -5V | -15V | 5V | 12V | 24V | -12V |
| | RATED CURRENT | 5.5A | 2A | 0.5A | 0.5A | 5.5A | 1.5A | 0.5A | 0.5A | 4A | 1A | 1A | 0.5A |
| | CURRENT RANGE | 0.5 ~ 8A | 0.1 ~ 3A | 0 ~ 1A | 0 ~ 1A | 0.5 ~ 8A | 0.1 ~ 3A | 0 ~ 1A | 0 ~ 1A | 0.5 ~ 8A | 0.1 ~ 3A | 0.1 ~ 1.5A | 0 ~ 1A |
| | RATED POWER | 60W | | | | 60W | | | | 62W | | | |
| | RIPPLE & NOISE (max.) Note.2 | 100mVp-p | 120mVp-p | 100mVp-p | 120mVp-p | 100mVp-p | 120mVp-p | 100mVp-p | 120mVp-p | 100mVp-p | 120mVp-p | 150mVp-p | 120mVp-p |
| | VOLTAGE ADJ. RANGE | CH1: 4.75 ~ 5.5V | | | | CH1: 4.75 ~ 5.5V | | | | CH1: 4.75 ~ 5.5V | | | |
| | VOLTAGE TOLERANCE Note.3 | ±2.0% | ±6.0% | ±5.0% | ±5.0% | ±2.0% | +8,-4% | ±5.0% | ±5.0% | ±2.0% | ±6.0% | +8,-4% | ±5.0% |
| | LINE REGULATION | ±0.5% | ±1.0% | ±0.5% | ±0.5% | ±0.5% | ±2.0% | ±0.5% | ±0.5% | ±0.5% | ±1.0% | ±2.0% | ±0.5% |
| | LOAD REGULATION | ±0.5% | ±4.0% | ±1.0% | ±1.0% | ±0.5% | ±4.0% | ±1.0% | ±1.0% | ±0.5% | ±4.0% | ±4.0% | ±1.0% |
| SETUP, RISE, HOLD TIME | 800ms, 20ms, 60ms/230VAC | | | | 1600ms, 20ms, 12ms/115VAC at full load | | | | | | | | |
| INPUT | VOLTAGE RANGE | 85 ~ 264VAC | | | | 120 ~ 370VDC | | | | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | | | | | | | | |
| | EFFICIENCY (Typ.) | 70% | | | | 72% | | | | 75% | | | |
| | AC CURRENT | 2A/115VAC | | | | 0.8A/230VAC | | | | | | | |
| | INRUSH CURRENT (max.) | COLD START 18A/115VAC | | | | 36A/230VAC | | | | | | | |
| | LEAKAGE CURRENT | <1mA / 240VAC | | | | | | | | | | | |
| PROTECTION | OVER LOAD | 105 ~ 150%/115VAC rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | | | | | | | |
| | OVER VOLTAGE | 5V: 5.75 ~ 6.75VDC Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | | | | | | | |
| ENVIRONMENT | WORKING TEMP. | -10 ~ +60°C (Refer to output load derating curve) | | | | | | | | | | | |
| | WORKING HUMIDITY | 20 ~ 90% RH non-condensing | | | | | | | | | | | |
| | STORAGE TEMP., HUMIDITY | -20 ~ +85°C, 10 ~ 95% RH | | | | | | | | | | | |
| | TEMP. COEFFICIENT | ±0.03%/°C (0 ~ 50°C) on +5V output | | | | | | | | | | | |
| | VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes | | | | | | | | | | | |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS | UL60950 Approved | | | | | | | | | | | |
| | WITHSTAND VOLTAGE | I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC | | | | | | | | | | | |
| | ISOLATION RESISTANCE | I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC | | | | | | | | | | | |
| | EMI CONDUCTION & RADIATION | Compliance to EN55022 (CISPR22) Class B | | | | | | | | | | | |
| | HARMONIC CURRENT | Compliance to EN61000-3-2,-3 | | | | | | | | | | | |
| | EMS IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, Light industry level, criteria A | | | | | | | | | | | |
| OTHERS | MTBF | 284.8K hrs min. MIL-HDBK-217F (25°C) | | | | | | | | | | | |
| | DIMENSION | 159*97*38mm (L*W*H) | | | | | | | | | | | |
| | PACKING | 0.55Kg; 24pcs/13.2Kg/0.75CUFT | | | | | | | | | | | |
| NOTE | <ol style="list-style-type: none"> 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 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. | | | | | | | | | | | | |

Mechanical Specification

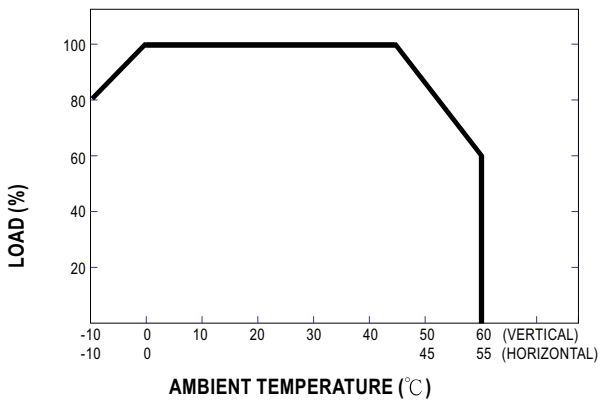
Case No. 901 Unit:mm



Terminal Pin. No Assignment

| Pin No. | Assignment | Pin No. | Assignment | Pin No. | Assignment |
|---------|------------|---------|---------------|---------|---------------|
| 1 | AC/L | 4 | DC OUTPUT -V1 | 7 | DC OUTPUT COM |
| 2 | AC/N | 5 | DC OUTPUT -V2 | 8 | DC OUTPUT +V1 |
| 3 | FG \perp | 6 | DC OUTPUT +V2 | | |

Derating Curve



Static Characteristics

