



125W Quad Output Switching Power Supply

RQ-125 series



■ Features :

- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- LED indicator for power on
- 100% full load burn-in test
- All using 105°C long life electrolytic capacitors
- Withstand 300VAC surge input for 5 second
- High operating temperature up to 70°C
- Withstand 5G vibration test
- High efficiency, long life and high reliability
- 3 years warranty

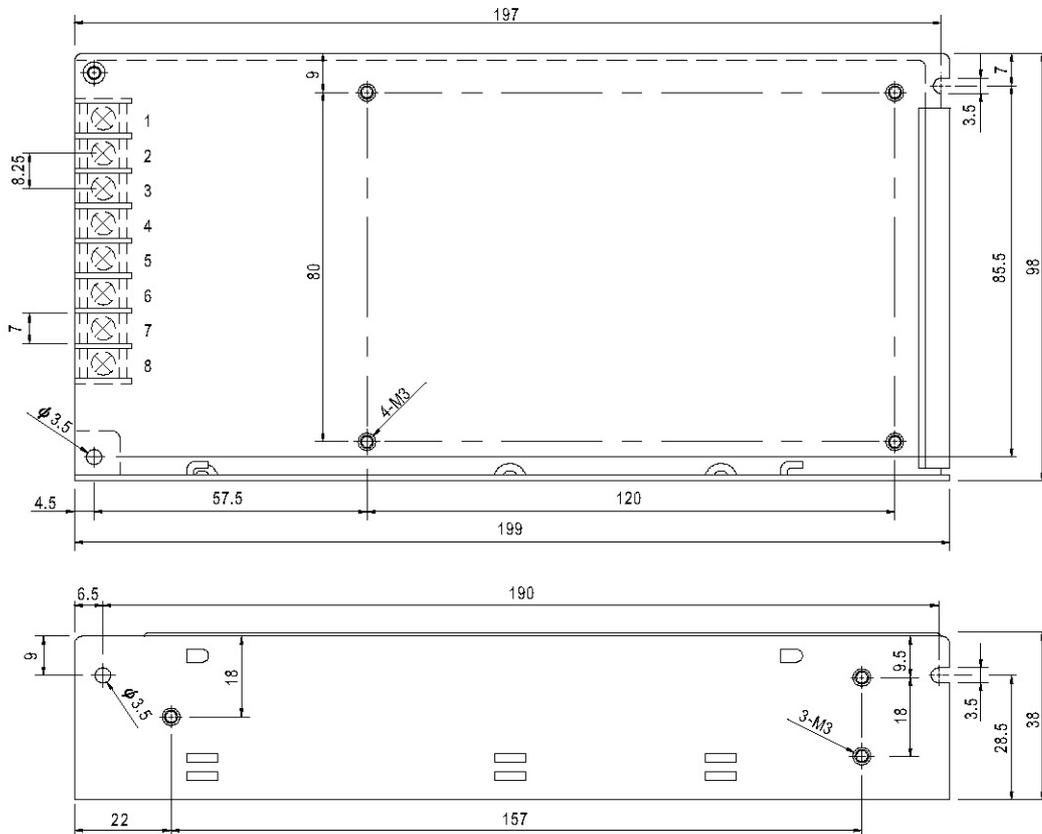


SPECIFICATION

| MODEL | | 413-633 | | | | 413-699 | | | | 413-623 | | | | |
|--------------------------------------|--|--|------------|-----------------|----------------------------------|---|----------|----------|---------|------------------|----------|------------|----------|---------|
| OUTPUT | OUTPUT NUMBER | CH1 | CH2 | CH3 | CH4 | CH1 | CH2 | CH3 | CH4 | CH1 | CH2 | CH3 | CH4 | |
| | DC VOLTAGE | 5V | 12V | -5V | -12V | 5V | 15V | -5V | -15V | 5V | 12V | 24V | -12V | |
| | RATED CURRENT | 11A | 4.5A | 1A | 0.5A | 10A | 4A | 1A | 0.5A | 8A | 2.5A | 2A | 0.5A | |
| | CURRENT RANGE <small>Note.6</small> | 2 ~ 12A | 0.5 ~ 4.5A | 0.1 ~ 1A | 0 ~ 1A | 2 ~ 12A | 0.5 ~ 4A | 0.1 ~ 1A | 0 ~ 1A | 2 ~ 12A | 0.5 ~ 4A | 0.1 ~ 2.5A | 0 ~ 1A | |
| | RATED POWER <small>Note.6</small> | 120W | | | | 122.5W | | | | 124W | | | | |
| | RIPPLE & NOISE (max.) <small>Note.2</small> | 80mVp-p | 120mVp-p | 80mVp-p | 80mVp-p | 80mVp-p | 120mVp-p | 80mVp-p | 80mVp-p | 80mVp-p | 80mVp-p | 120mVp-p | 150mVp-p | 80mVp-p |
| | VOLTAGE ADJ. RANGE | CH1: 4.75 ~ 5.5V | | | | CH1: 4.75 ~ 5.5V | | | | CH1: 4.75 ~ 5.5V | | | | |
| | VOLTAGE TOLERANCE <small>Note.3</small> | ±2.0% | +8,-3% | +6,-10% | ±5.0% | ±2.0% | +8,-3% | +6,-10% | ±5.0% | ±2.0% | +8,-3% | +8,-3% | ±8.0% | ±5.0% |
| | LINE REGULATION <small>Note.4</small> | ±0.5% | ±1.0% | ±1.0% | ±1.0% | ±0.5% | ±1.0% | ±1.0% | ±1.0% | ±0.5% | ±1.0% | ±1.0% | ±1.0% | ±1.0% |
| | LOAD REGULATION <small>Note.5</small> | ±1.0% | ±3.0% | ±6.0% | ±2.0% | ±1.0% | ±3.0% | ±6.0% | ±2.0% | ±1.0% | ±3.0% | ±5.0% | ±2.0% | ±2.0% |
| SETUP, RISE TIME | 500ms, 20ms/230VAC | | | | 1200ms, 30ms/115VAC at full load | | | | | | | | | |
| HOLD UP TIME (Typ.) | 25ms/230VAC | | | | 30ms/115VAC at full load | | | | | | | | | |
| INPUT | VOLTAGE RANGE | 88 ~ 132VAC / 176 ~ 264VAC selected by switch | | | | 248 ~ 373VDC(Withstand 300VAC surge for 5sec. Without damage) | | | | | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | | | | | | | | | |
| | EFFICIENCY (Typ.) | 79% | | | | 80% | | | | 82% | | | | |
| | AC CURRENT (Typ.) | 3A/115VAC | | 2A/230VAC | | | | | | | | | | |
| | INRUSH CURRENT (Typ.) | COLD START 40A/230VAC | | | | | | | | | | | | |
| LEAKAGE CURRENT | <2mA/ 240VAC | | | | | | | | | | | | | |
| PROTECTION | OVERLOAD | 110 ~ 150% rated output power | | | | | | | | | | | | |
| | | Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | | | | | | | | |
| OVER VOLTAGE | | CH1: 5.75 ~ 6.75V | | | | | | | | | | | | |
| | | Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | | | | | | | | |
| ENVIRONMENT | WORKING TEMP. | -25 ~ +70°C (Refer to output load derating curve) | | | | | | | | | | | | |
| | WORKING HUMIDITY | 20 ~ 90% RH non-condensing | | | | | | | | | | | | |
| | STORAGE TEMP., HUMIDITY | -40 ~ +85°C, 10 ~ 95% RH | | | | | | | | | | | | |
| | TEMP. COEFFICIENT | ±0.03%/°C (0 ~ 50°C) on +5V output | | | | | | | | | | | | |
| VIBRATION | 10 ~ 500Hz, 5G 10min./1cycle, period for 60min. each along X, Y, Z axes | | | | | | | | | | | | | |
| SAFETY & EMC <small>(Note 7)</small> | SAFETY STANDARDS | UL60950-1, TUV EN60950-1 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, EN61000-6-2 (EN50082-2) heavy industry level, criteria A | | | | | | | | | | | | | |
| OTHERS | MTBF | 203.1Khrs min. MIL-HDBK-217F (25°C) | | | | | | | | | | | | |
| | DIMENSION | 199*98*38mm (L*W*H) | | | | | | | | | | | | |
| | PACKING | 0.7Kg, 20pcs/14Kg/0.8CUFT | | | | | | | | | | | | |
| 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. Line regulation is measured from low line to high line at rated load. 5. Load regulation is measured from 20% to 100% rated load, and other output at 60% rated load. 6. Each output can work within current range. But total output power can't exceed rated output power. 7. 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. 8. Length of set up time is measured at cold first start. Turning ON/OFF the power supply very quickly may lead to increase of the set up time. | | | | | | | | | | | | | |

■ Mechanical Specification

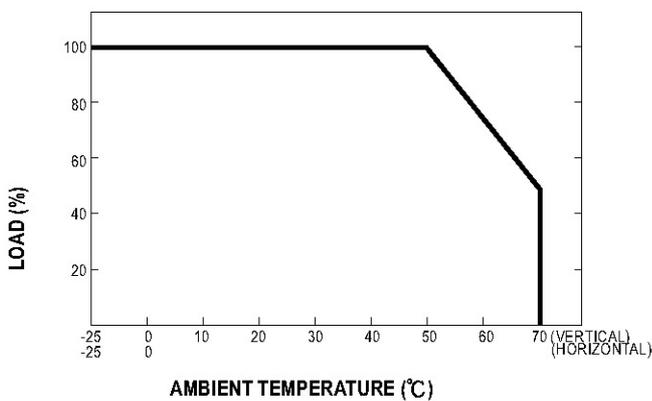
Case No. 902 Unit:mm



Terminal Pin No. Assignment

| Pin No. | Assignment | Pin No. | Assignment | Pin No. | Assignment |
|---------|------------|---------|---------------|---------|---------------|
| 1 | AC/L | 4 | DC OUTPUT -V4 | 7 | DC OUTPUT COM |
| 2 | AC/N | 5 | DC OUTPUT V3 | 8 | DC OUTPUT +V1 |
| 3 | FG \perp | 6 | DC OUTPUT +V2 | | |

■ Derating Curve



■ Static Characteristics

