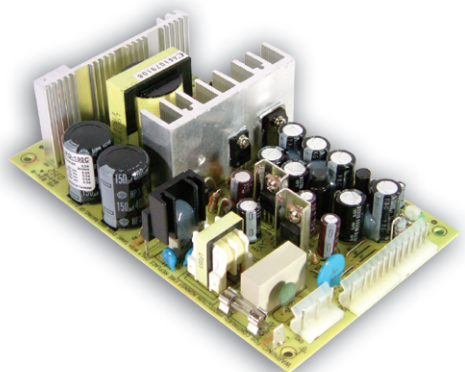




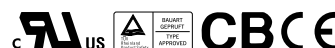
100W Quad Output Switching Power Supply

PQ-100 series



■ Features :

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- With power good signal output(Optional)
- 100% full load burn-in test
- Fixed switching frequency at 45KHz
- 2 years warranty



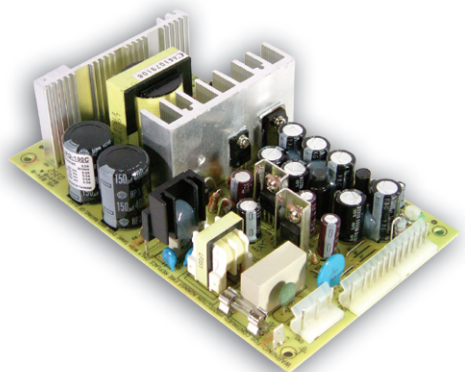
SPECIFICATION

| MODEL | | PQ-100B | | | | PQ-100C | | | |
|-----------------------|---|--|------------|-------------|----------|-----------------|----------|---------|----------|
| OUTPUT | OUTPUT NUMBER | CH1 | CH2 | CH3 | CH4 | CH1 | CH2 | CH3 | CH4 |
| | DC VOLTAGE | 5V | 12V | -5V | -12V | 5V | 15V | -5V | -15V |
| | RATED CURRENT | 10A | 3.5A | 0.5A | 0.5A | 8A | 3.5A | 0.5A | 0.5A |
| | CURRENT RANGE | 2 ~ 10A | 0.5 ~ 4.5A | 0 ~ 1A | 0 ~ 1A | 2 ~ 8A | 0.5 ~ 4A | 0 ~ 1A | 0 ~ 1A |
| | RATED POWER | 100.5W | | | | 102.5W | | | |
| | RIPPLE & NOISE (max.) Note.2 | 80mVp-p | 250mVp-p | 80mVp-p | 120mVp-p | 80mVp-p | 150mVp-p | 80mVp-p | 150mVp-p |
| | VOLTAGE ADJ. RANGE | CH1:4.75 ~ 5.5V | | | | CH1:4.75 ~ 5.5V | | | |
| | VOLTAGE TOLERANCE Note.3 | ±3.0% | ±12% | ±6.0% | ±6.0% | ±2.0% | ±6.0% | ±6.0% | ±6.0% |
| | LINE REGULATION | ±1.0% | ±5.0% | ±1.0% | ±1.0% | ±1.0% | ±3.0% | ±1.0% | ±1.0% |
| | LOAD REGULATION | ±2.0% | ±5.0% | ±1.0% | ±1.0% | ±1.0% | ±5.0% | ±1.0% | ±1.0% |
| | SETUP, RISE TIME | 1200ms, 50ms at full load | | | | | | | |
| HOLD UP TIME (Typ.) | 80ms at full load | | | | | | | | |
| INPUT | VOLTAGE RANGE | 100 ~ 264VAC 141 ~ 370VDC (90 ~ 100VAC 90% load max.) | | | | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | | | | |
| | EFFICIENCY(Typ.) | 72% | | | | 74% | | | |
| | AC CURRENT (Typ.) | 3A/115VAC | | 1.5A/230VAC | | | | | |
| | INRUSH CURRENT (Typ.) | COLD START 50A | | | | | | | |
| LEAKAGE CURRENT | <1mA/240VAC | | | | | | | | |
| PROTECTION | OVERLOAD | 105% ~ 135% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | | | |
| | OVER VOLTAGE | CH1: 5.75 ~ 6.75VDC Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | | | |
| FUNCTION | POWER GOOD | ≥ 1ms | | | | | | | |
| ENVIRONMENT | WORKING TEMP. | -10 ~ +50°C, 60 °C with cooling fan(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) | | | | | | | |
| | VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes | | | | | | | |
| SAFETY & EMC (Note 4) | 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 EN61000-4-2,3,4,5,6,11; ENV50204, light industry level, criteria A | | | | | | | |
| OTHERS | MTBF | 258.6K hrs min. MIL-HDBK-217F (25°C) | | | | | | | |
| | DIMENSION | 177.8*107.95*46mm (L*W*H) | | | | | | | |
| | PACKING | 0.56Kg; 24pcs/14.5Kg/1.19CUFT | | | | | | | |
| 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. | | | | | | | | |



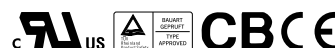
100W Quad Output Switching Power Supply

PQ-100 series



■ Features :

- Universal AC input / Full range
- Protections: Short circuit/Over load/Over voltage
- Cooling by free air convection
- With power good signal output(Optional)
- 100% full load burn-in test
- Fixed switching frequency at 45KHz
- 2 years warranty



SPECIFICATION

| MODEL | | PQ-100D | | | | PQ-100E | | | |
|-----------------------|---|--|------------|-------------|----------|-----------------|----------|----------|----------|
| OUTPUT | OUTPUT NUMBER | CH1 | CH2 | CH3 | CH4 | CH1 | CH2 | CH3 | CH4 |
| | DC VOLTAGE | 5V | 12V | 24V | -12V | 5V | 12V | 15V | 24V |
| | RATED CURRENT | 5A | 2A | 2A | 0.5A | 8A | 3A | 0.6A | 0.6A |
| | CURRENT RANGE | 2 ~ 5A | 0.5 ~ 4.5A | 0.4 ~ 2A | 0 ~ 1A | 2 ~ 8A | 0.5 ~ 3A | 0 ~ 1A | 0 ~ 1A |
| | RATED POWER | 103W | | | | 99.4W | | | |
| | RIPPLE & NOISE (max.) Note.2 | 80mVp-p | 120mVp-p | 180mVp-p | 120mVp-p | 80mVp-p | 120mVp-p | 150mVp-p | 120mVp-p |
| | VOLTAGE ADJ. RANGE | CH1:4.75 ~ 5.5V | | | | CH1:4.75 ~ 5.5V | | | |
| | VOLTAGE TOLERANCE Note.3 | ±2.0% | ±6.0% | ±10% | ±6.0% | ±2.0% | ±6.0% | ±6.0% | ±6.0% |
| | LINE REGULATION | ±1.0% | ±3.0% | ±1.0% | ±1.0% | ±1.0% | ±3.0% | ±1.0% | ±1.0% |
| | LOAD REGULATION | ±1.0% | ±5.0% | ±5.0% | ±1.0% | ±1.0% | ±5.0% | ±1.0% | ±1.0% |
| | SETUP, RISE TIME | 1200ms, 50ms at full load | | | | | | | |
| HOLD TIME (Typ.) | 80ms at full load | | | | | | | | |
| INPUT | VOLTAGE RANGE | 100 ~ 264VAC 141 ~ 370VDC (90 ~ 100VAC 90% load max.) | | | | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | | | | |
| | EFFICIENCY (Typ.) | 77% | | | | 74% | | | |
| | AC CURRENT (Typ.) | 3A/115VAC | | 1.5A/230VAC | | | | | |
| | INRUSH CURRENT (Typ.) | COLD START 50A | | | | | | | |
| LEAKAGE CURRENT | <1mA/240VAC | | | | | | | | |
| PROTECTION | OVER LOAD | 105% ~ 135% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | | | |
| | OVER VOLTAGE | CH1: 5.75 ~ 6.75VDC Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | | | |
| FUNCTION | POWER GOOD | ≥ 1ms | | | | | | | |
| ENVIRONMENT | WORKING TEMP. | -10 ~ +50°C, 60 °C with cooling fan(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) | | | | | | | |
| | VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes | | | | | | | |
| SAFETY & EMC (Note 4) | 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 EN61000-4-2,3,4,5,6,11; ENV50204, light industry level, criteria A | | | | | | | |
| OTHERS | MTBF | 258.6K hrs min. MIL-HDBK-217F (25°C) | | | | | | | |
| | DIMENSION | 177.8*107.95*46mm (L*W*H) | | | | | | | |
| | PACKING | 0.56Kg; 24pcs/14.5Kg/1.19CUFT | | | | | | | |
| 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. | | | | | | | | |

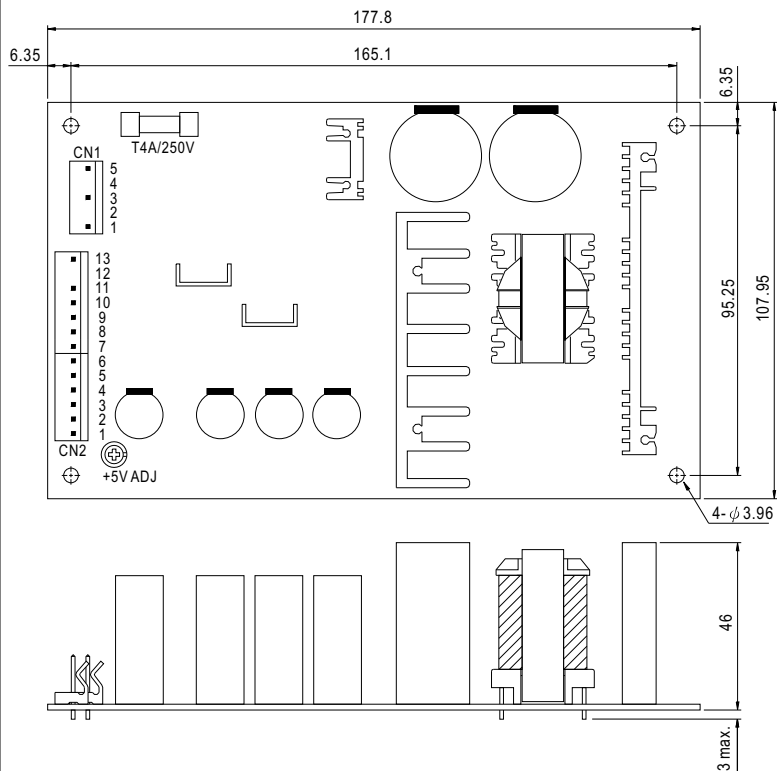


100W Quad Output Switching Power Supply

PQ-100 series

Mechanical Specification

Unit:mm



AC Input Connector (CN1) : Molex 5273-05 or equivalent

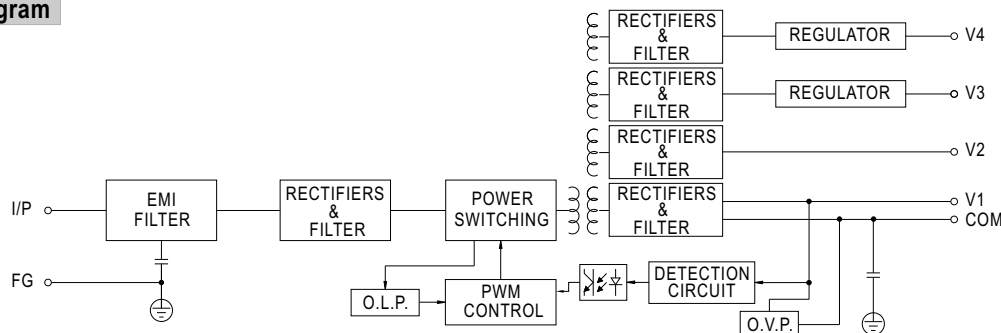
| Pin No. | Assignment | Mating Housing | Terminal |
|---------|-------------|--------------------------|--------------------------|
| 1 | FG \equiv | Molex 5195 or equivalent | Molex 5194 or equivalent |
| 2,4 | No Pin | | |
| 3 | AC/N | | |
| 5 | AC/L | | |

DC Output Connector (CN2) : Molex 5273-06,07 or equivalent

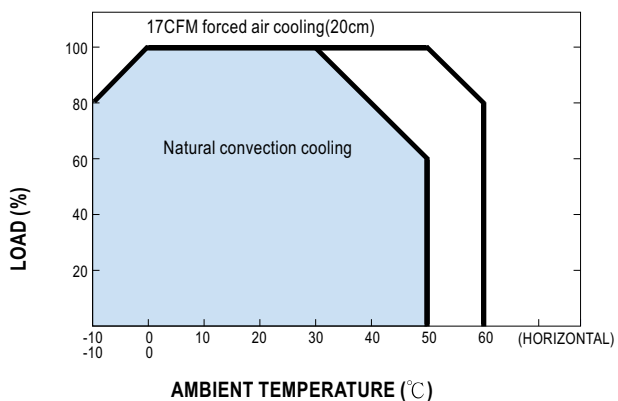
| Pin No. | Assignment | Mating Housing | Terminal |
|---------|----------------------|--------------------------|--------------------------|
| 1,2,3 | V1 | Molex 5195 or equivalent | Molex 5194 or equivalent |
| 4,5,6,7 | COM | | |
| 8,9 | V2 | | |
| 10 | Power Good(Optional) | | |
| 11 | V3 | Molex 5195 or equivalent | Molex 5194 or equivalent |
| 12 | No Pin | | |
| 13 | V4 | | |

fosc : 45KHz

Block Diagram



Derating Curve



Static Characteristics (B)

