

- Universal AC input
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Fixed switching frequency at PFC:67KHz
PWM:134KHz(Optional)



| Model Number | Output Volts | Output Amps | Ripple & Noise | Line Reg | Load Reg | Volt Tolerance | Min Load |
|--------------------|---------------|-------------|----------------|----------|----------|----------------|-------------|
| Quad OUTPUT | | | | | | | |
| PPQ-1003A | 3.3 Volts(DC) | 10 Amps | 100mVpk-pk | ±1.0% | ±2.0% | ±3.0% | 0~15Amps |
| | 5 Volts(DC) | 10 Amps | 100mVpk-pk | ±1.0% | ±2.0% | ±3.0% | 2.0~15Amps |
| | 12 Volts(DC) | 2.0 Amps | 150mVpk-pk | ±2.0% | ±6.0% | ±6.0% | 0.2~3.0Amps |
| | -5Volts(DC) | 0.3 Amps | 100mVpk-pk | ±1.0% | ±1.0% | ±6.0% | 0~1.0Amps |
| PPQ-1003B | 3.3 Volts(DC) | 10 Amps | 100mVpk-pk | ±1.0% | ±2.0% | ±3.0% | 0~15Amps |
| | 5 Volts(DC) | 10 Amps | 100mVpk-pk | ±1.0% | ±2.0% | ±3.0% | 2.0~15Amps |
| | 12 Volts(DC) | 2.0 Amps | 150mVpk-pk | ±2.0% | ±6.0% | ±6.0% | 0.2~3.0Amps |
| | -12 Volts(DC) | 0.3 Amps | 120mVpk-pk | ±1.0% | ±1.0% | ±6.0% | 0~1.0Amps |
| PPQ-1003C | 3.3 Volts(DC) | 10Amps | 100mVpk-pk | ±1.0% | ±2.0% | ±3.0% | 0~15Amps |
| | 5 Volts(DC) | 10 Amps | 100mVpk-pk | ±1.0% | ±2.0% | ±3.0% | 2.0~15Amps |
| | 15 Volts(DC) | 1.5 Amps | 180mVpk-pk | ±2.0% | ±6.0% | +10,-5% | 0.2~3.0Amps |
| | -15 Volts(DC) | 0.3 Amps | 150mVpk-pk | ±1.0% | ±1.0% | ±6.0% | 0~1.0Amps |
| PPQ-1003D | 3.3 Volts(DC) | 10 Amps | 100mVpk-pk | ±1.0% | ±2.0% | ±3.0% | 0~15Amps |
| | 5 Volts(DC) | 10 Amps | 100mVpk-pk | ±1.0% | ±2.0% | ±3.0% | 2~15Amps |
| | 12 Volts(DC) | 2.0 Amps | 150mVpk-pk | ±2.0% | ±6.0% | ±6.0% | 0.2~3.0Amps |
| | 24 Volts(DC) | 0.3 Amps | 150mVpk-pk | ±1.0% | ±1.0% | ±6.0% | 0~1.0Amps |

100W Quad Output with PFC Function

PPQ1003 series

INPUT SPECIFICATIONS

| | |
|-----------------------------------|--------------------------------------|
| Input Voltage Range | 90-264VAC / 127-370 Volts(DC) |
| Frequency Range | 47~63Hz |
| Inrush Current, typ: (cold start) | 40 Amps |
| Input Current | 1.65Amps @115VAC 0.85Amps @230VAC |
| Leakage current | < 1.0mAmps / 240VAC |
| Power Factor | PF >0.95 / 230VAC > 0.98 / 115VAC |

OUTPUT SPECIFICATIONS

| | |
|----------------------------|--|
| Voltage and Current | See Selection Chart |
| Line Regulation | See Selection Chart |
| Load Regulation | See Selection Chart |
| Voltage Tolerance (Note 2) | See Selection Chart |
| Ripple/Noise (Note 1) | See Selection Chart |
| Hold Up Time @ FL | 18mS |
| Setup, Rise Time @ FL | 800mS, 50mS |
| Over Voltage Protection | 3.3Volts(DC): 3.6~4.3Volts(DC) 5Volts(DC): 5.75~6.75Volts(DC) Shutdown o/p voltage, re-power |
| Over Current Protection | 105~135% rated output power Constant current limiting, auto recover |
| DC Voltage Adjust | 3.3Volts(DC): 3.14~3.63Volts(DC) 5Volts(DC): 4.75~5.5Volts(DC) |

GENERAL SPECIFICATIONS

| | |
|-----------------------|-------------------------------------|
| Safety | UL60950-1 TUV EN60950-1 Approved |
| Insulation Resistance | ≥ 100MΩ / 500Volts(DC) |
| EMI | Compliance to EN55022B (CISPR22B) |
| Harmonic Current | Compliance to EN61000-3-2,-3 |
| Efficiency | 72% |

| | |
|-----------|--|
| Isolation | 3000VAC Input - Output 1500VAC Input - Ground 500VAC Output - Ground |
| EMS | Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, light industry level, criteria A |

ENVIRONMENTAL SPECIFICATIONS

| | |
|-------------------------|---|
| Oper. Temperature | -10°C to +60°C (See Derate Curve) |
| Storage Temperature | -40°C to +85°C, 10~95% RH |
| Relative Humidity | 20 to +90% RH non cond |
| Temperature Coefficient | ±0.03% / °C (0-50°C) |
| MTBF | 150.6K Hrs min, MIL-HDBK-217F (25°C) |
| Vibration | 10~500Hz, 2G10min./1cycle, period for 60min. each along X, Y, Z axes |

PHYSICAL SPECIFICATIONS

| | | |
|--------|-------------|---------------------|
| Size | Millimeters | 177.8 x 107.95 x 38 |
| | Inches | 7" x 4.25" x 1.50" |
| Weight | | 21.87 oz (620g) |

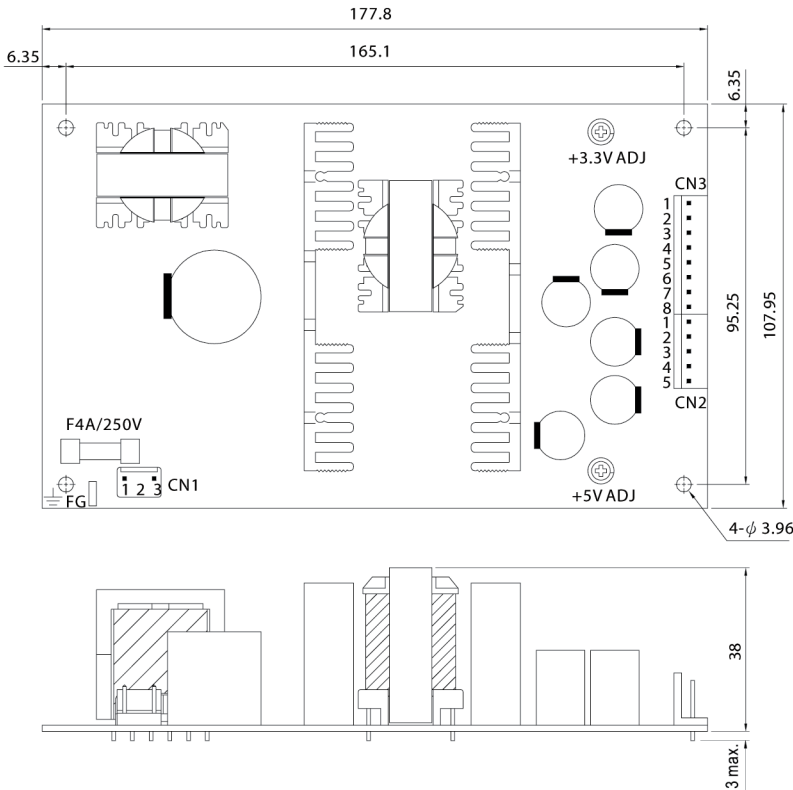
NOTE

1. Ripple and Noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47 uf parallel capacitor.
2. Tolerance: includes set up tolerance, line regulation and load regulation.

All specifications are typical at nominal input, full load, and 25°C unless otherwise noted

Mechanical Specification

Unit:mm



AC Input Connector (CN1) : JST B3P-VH or equivalent

| Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|-----------------------|--------------------------------|
| 1 | AC/L | JST VHR or equivalent | JST SVH-21T-P1.1 or equivalent |
| 2 | No Pin | | |
| 3 | AC/N | | |

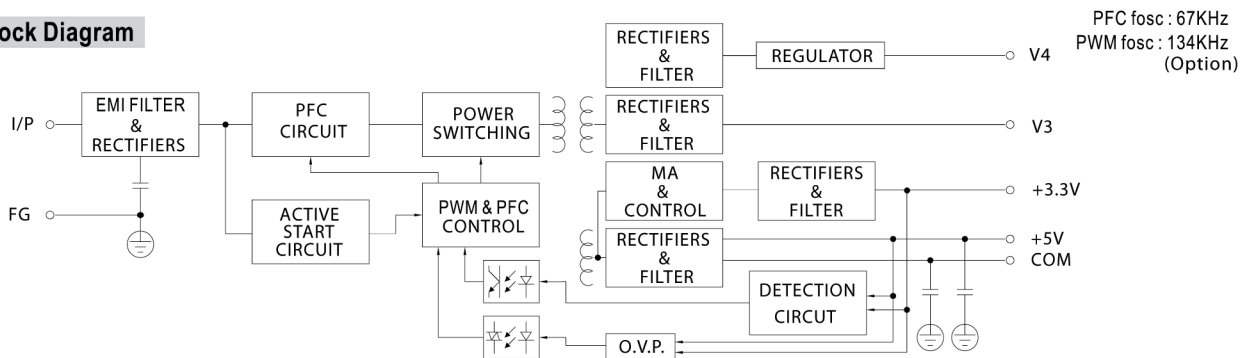
DC Output Connector (CN2) : JST B5P-VH or equivalent

| Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|-----------------------|--------------------------------|
| 1,2,3 | V2 | JST VHR or equivalent | JST SVH-21T-P1.1 or equivalent |
| 4 | V3 | | |
| 5 | V4 | | |

DC Output Connector (CN3) : JST B8P-VH or equivalent

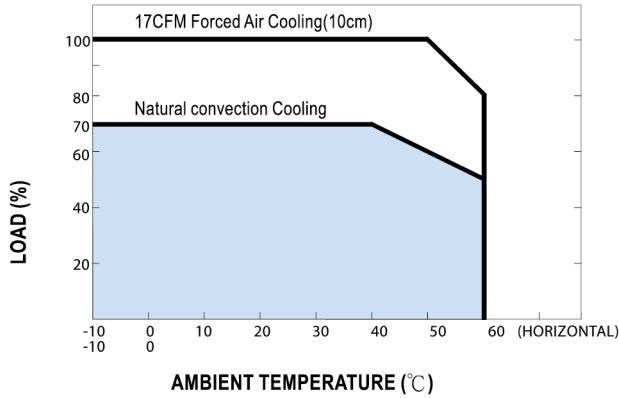
| Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|-----------------------|--------------------------------|
| 1~3 | V1 | JST VHR or equivalent | JST SVH-21T-P1.1 or equivalent |
| 4~8 | COM | | |

Block Diagram



100W Quad Output with PFC Function

■ Derating Curve



■ Output Derating VS Input Voltage

