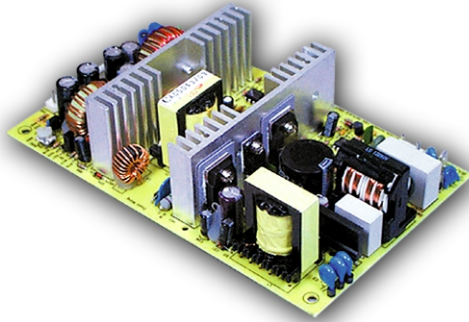


100W Quad Output with PFC Function

PPQ-100 series



- Features :
  - Universal AC input / Full range
  - Built-in active PFC function, PF>0.95
  - Protections: Short circuit / Overload / Over voltage
  - Cooling by free air convection
  - 100% full load burn-in test
  - Fixed switching frequency at 70KHz(Optional)
  - 3 years warranty



**SPECIFICATION**

| MODEL                 | PPQ-100B   |  |          |              | PPQ-100C |                             |          |          | PPQ-100D |          |          |          |          |
|-----------------------|--|--|----------|--------------|----------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|
| OUTPUT                | OUTPUT NUMBER  | CH1  | CH2      | CH3          | CH4      | CH1                         | CH2      | CH3      | CH4      | CH1      | CH2      | CH3      | CH4      |
|                       | DC VOLTAGE   | 5V   | 12V      | -12V         | -5V      | 5V                          | 15V      | -15V     | -5V      | 5V       | 24V      | 12V      | -12V     |
|                       | RATED CURRENT  | 10A  | 3.4A     | 0.6A         | 0.6A     | 10A                         | 2.6A     | 0.6A     | 0.6A     | 8A       | 2A       | 0.6A     | 0.6A     |
|                       | CURRENT RANGE  | 2 ~ 15A  | 0.3 ~ 4A | 0 ~ 1A       | 0 ~ 1A   | 2 ~ 15A                     | 0.3 ~ 4A | 0 ~ 1A   | 0 ~ 1A   | 2 ~ 10A  | 0.3 ~ 4A | 0 ~ 1A   | 0 ~ 1A   |
|                       | RATED POWER (max.)   | 101W   |          |              |          | 101W                        |          |          |          | 102.4W   |          |          |          |
|                       | RIPPLE & NOISE (max.) Note.2   | 100mVp-p   | 150mVp-p | 100mVp-p     | 100mVp-p | 100mVp-p                    | 150mVp-p | 100mVp-p | 100mVp-p | 100mVp-p | 200mVp-p | 100mVp-p | 100mVp-p |
|                       | VOLTAGE ADJ. RANGE   | CH1:4.75 ~ 5.5V  |          |              |          |                             |          |          |          |          |          |          |          |
|                       | VOLTAGE TOLERANCE Note.3   | ±3.0%  | ±8.0%    | ±5.0%        | ±5.0%    | ±3.0%                       | +10,-6%  | ±5.0%    | ±5.0%    | ±3.0%    | ±8.0%    | ±5.0%    | ±5.0%    |
|                       | LINE REGULATION  | ±1.0%  | ±2.0%    | ±2.0%        | ±1.0%    | ±1.0%                       | ±2.0%    | ±2.0%    | ±1.0%    | ±1.0%    | ±2.0%    | ±2.0%    | ±1.0%    |
|                       | LOAD REGULATION  | ±2.0%  | ±6.0%    | ±2.0%        | ±2.0%    | ±2.0%                       | ±6.0%    | ±2.0%    | ±2.0%    | ±2.0%    | ±6.0%    | ±2.0%    | ±2.0%    |
| SETUP, RISE TIME      | 800ms, 50ms/230VAC    1200ms, 50ms/115VAC at full load   |  |          |              |          |                             |          |          |          |          |          |          |          |
| HOLD UP TIME (Typ.)   | 24ms/230VAC    24ms/115VAC at full load  |  |          |              |          |                             |          |          |          |          |          |          |          |
| INPUT                 | VOLTAGE RANGE  | 90 ~ 264VAC  |          | 127 ~ 370VDC |          |                             |          |          |          |          |          |          |          |
|                       | FREQUENCY RANGE  | 47 ~ 63Hz  |          |              |          |                             |          |          |          |          |          |          |          |
|                       | POWER FACTOR (Typ.)  | PF>0.95/230VAC   |          |              |          | PF>0.98/115VAC at full load |          |          |          |          |          |          |          |
|                       | EFFICIENCY(Typ.)   | 75%  |          |              |          | 76%                         |          |          |          | 78%      |          |          |          |
|                       | AC CURRENT (Typ.)  | 1.65A/115VAC   |          | 0.85A/230VAC |          |                             |          |          |          |          |          |          |          |
|                       | INRUSH CURRENT (Typ.)  | COLD START 30A   |          |              |          |                             |          |          |          |          |          |          |          |
| LEAKAGE CURRENT       | <3.5mA /240VAC   |  |          |              |          |                             |          |          |          |          |          |          |          |
| PROTECTION            | OVERLOAD   | 105% ~ 135% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |          |              |          |                             |          |          |          |          |          |          |          |
|                       | OVER VOLTAGE   | CH1: 5.75 ~ 6.75V<br>Protection type : Shut down o/p voltage, re-power on to recover                                     |          |              |          |                             |          |          |          |          |          |          |          |
| ENVIRONMENT           | WORKING TEMP.  | -10 ~ +60°C (Refer to "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:2.0KVAC    O/P-FG:0.5KVAC  |          |              |          |                             |          |          |          |          |          |          |          |
|                       | ISOLATION RESISTANCE   | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH   |          |              |          |                             |          |          |          |          |          |          |          |
|                       | EMC EMISSION   | Compliance to EN55032 (CISPR32) Class B, EN61000-3-2,-3  |          |              |          |                             |          |          |          |          |          |          |          |
|                       | EMC IMMUNITY   | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A  |          |              |          |                             |          |          |          |          |          |          |          |
| OTHERS                | MTBF   | 162.5K hrs min.    MIL-HDBK-217F (25°C)  |          |              |          |                             |          |          |          |          |          |          |          |
|                       | DIMENSION  | 177.8*107.95*38mm (L*W*H)  |          |              |          |                             |          |          |          |          |          |          |          |
|                       | PACKING  | 0.62Kg; 24pcs/15.9Kg/1.34CUFT  |          |              |          |                             |          |          |          |          |          |          |          |
| NOTE                  | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.<br>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.<br>3. Tolerance : includes set up tolerance, line regulation and load regulation.<br>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. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies."<br>(as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a> )<br>5. Heat Sink HS1,HS2 can not be shorted. |  |          |              |          |                             |          |          |          |          |          |          |          |

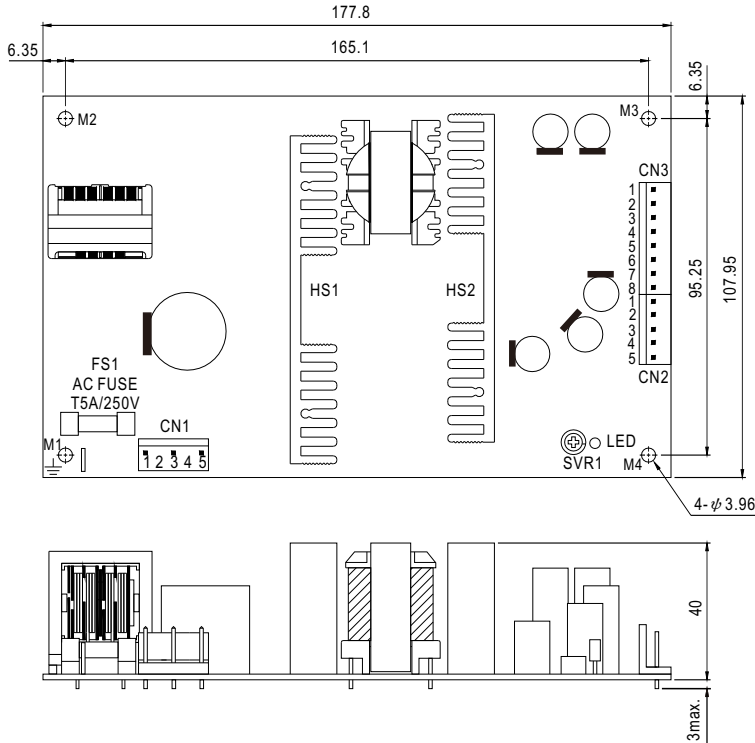
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Note: all features are subject to change without notice.

**Mechanical Specification**

Unit:mm



AC Input Connector (CN1) : JST B5P-VH or equivalent

| Pin No. | Assignment | Mating Housing        | Terminal                       |
|---------|------------|-----------------------|--------------------------------|
| 1       | FG $\perp$ | JST VHR or equivalent | JST SVH-21T-P1.1 or equivalent |
| 2,4     | No Pin     |                       |                                |
| 3       | AC/L       |                       |                                |
| 5       | AC/N       |                       |                                |

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

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

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

| Pin No. | Assignment | Mating Housing        | Terminal                       |
|---------|------------|-----------------------|--------------------------------|
| 1~4     | V1         | JST VHR or equivalent | JST SVH-21T-P1.1 or equivalent |
| 5~8     | COM        |                       |                                |

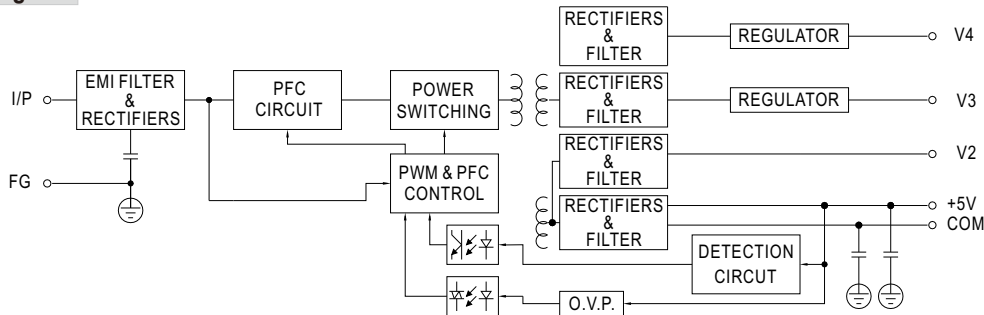
$\perp$  : Grounding Required



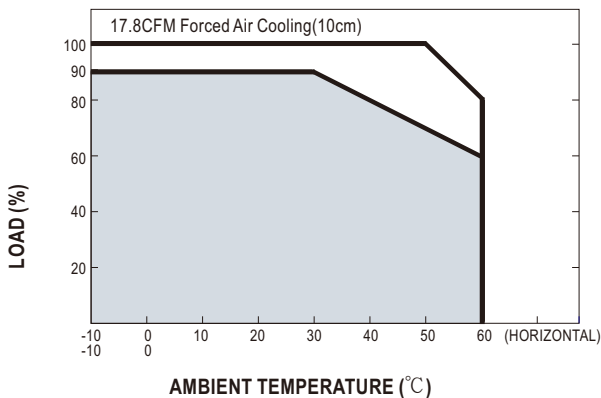
- 1.HS1,HS2 cannot be shorted.
- 2.M1 is safety ground. For better EMC performance,Please secure an electrical connection between M1,M2,M3,M4and chassis grounding.

fosc : 70KHz (Option)

**Block Diagram**



**Derating Curve**



**Output Derating VS Input Voltage**

