



## ■ Features :

- 4" x 2" Compact size
- Universal AC input / Full range
- Built-in active PFC function
- High efficiency up to 93%
- Protections: Short circuit / Overload / Over voltage/ Over temperature
- 100W free air convection, 150W with 20CFM forced air
- LED indicator for power on
- No load power consumption<0.5W
- Built-in 12V/0.3A auxiliary output
- 3 years warranty

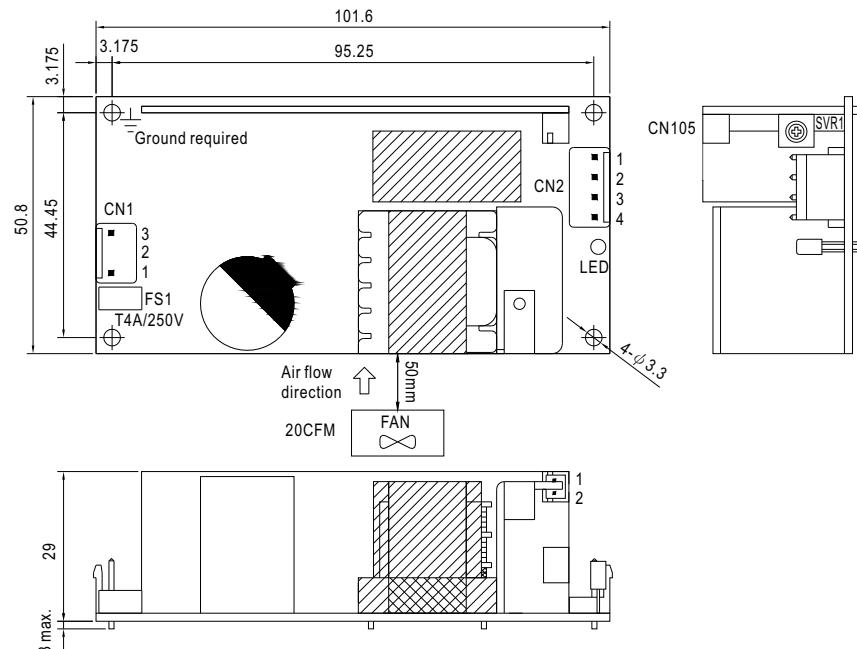


## SPECIFICATION

| MODEL                 | EPP-150-12   | EPP-150-15  | EPP-150-24                       | EPP-150-27    | EPP-150-48     |
|-----------------------|--|---|----------------------------------|---------------|----------------|
| OUTPUT                | DC VOLTAGE   | 12V   | 15V                              | 24V           | 27V            |
|                       | RATED CURRENT (convection)   | 8.4A  | 6.7A                             | 4.2A          | 3.71A          |
|                       | RATED CURRENT (20CFM FAN)  | 12.5A   | 10A                              | 6.25A         | 5.56A          |
|                       | CURRENT RANGE (convection)   | 0 ~ 8.4A  | 0 ~ 6.7A                         | 0 ~ 4.2A      | 0 ~ 3.71A      |
|                       | CURRENT RANGE (20CFM FAN)  | 0 ~ 12.5A   | 0 ~ 10A                          | 0 ~ 6.25A     | 0 ~ 5.56A      |
|                       | RATED POWER (convection)   | 100.8W  | 100.5W                           | 100.8W        | 100.17W        |
|                       | RATED POWER (20CFM FAN)  | 150W  | 150W                             | 150W          | 150W           |
|                       | RIPPLE & NOISE (max.) Note.2   | 130mVp-p  | 150mVp-p                         | 240mVp-p      | 240mVp-p       |
|                       | VOLTAGE ADJ. RANGE   | 11.76 ~ 12.6V   | 14.7 ~ 15.75V                    | 23.52 ~ 25.2V | 26.46 ~ 28.35V |
|                       | VOLTAGE TOLERANCE Note.3   | ±2.0%   | ±2.0%                            | ±1.0%         | ±1.0%          |
|                       | LINE REGULATION  | ±0.5%   | ±0.5%                            | ±0.5%         | ±0.5%          |
|                       | LOAD REGULATION  | ±1.0%   | ±1.0%                            | ±1.0%         | ±1.0%          |
| INPUT                 | SETUP, RISE TIME   | 1000ms, 30ms/230VAC   | 2000ms, 30ms/115VAC at full load |               |                |
|                       | HOLD UP TIME (Typ.)  | 16ms/230VAC   | 16ms/115VAC at full load         |               |                |
| PROTECTION            | VOLTAGE RANGE Note.5   | 90 ~ 264VAC   | 127 ~ 370VDC                     |               |                |
|                       | FREQUENCY RANGE  | 47 ~ 63Hz   |                                  |               |                |
|                       | POWER FACTOR (Typ.)  | PF>0.95/230VAC  | PF>0.98/115VAC at full load      |               |                |
|                       | EFFICIENCY (Typ.)  | 91.5%   | 92%                              | 93%           | 92%            |
|                       | AC CURRENT (Typ.)  | 1.8A/115VAC   | 1A/230VAC                        |               |                |
|                       | INRUSH CURRENT (Typ.)  | COLD START 70A/230VAC   |                                  |               |                |
|                       | LEAKAGE CURRENT  | <2mA/240VAC   |                                  |               |                |
| FUNCTION              | OVER LOAD  | 105 ~ 145% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |                                  |               |                |
|                       | OVER VOLTAGE   | 13.2 ~ 15.6V  | 16.83 ~ 19.5V                    | 27.7 ~ 31.5V  | 30.2 ~ 34.05V  |
|                       | OVER TEMPERATURE   | Protection type : Shut down o/p voltage, re-power on to recover   |                                  |               |                |
| ENVIRONMENT           | AUXILIARY POWER(AUX)   | 12V@0.3A for driving a fan, tolerance ± 10% at main output 100% load  |                                  |               |                |
| SAFETY & EMC (Note 4) | WORKING TEMP.  | -30 ~ +70°C (Refer to "Derating Curve")   |                                  |               |                |
|                       | WORKING HUMIDITY   | 20 ~ 90% RH non-condensing  |                                  |               |                |
|                       | STORAGE TEMP., HUMIDITY  | -40 ~ +85°C, 10 ~ 95% RH  |                                  |               |                |
|                       | TEMP. COEFFICIENT  | ± 0.03%/°C (0 ~ 45°C)   |                                  |               |                |
| OTHERS                | VIBRATION  | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes   |                                  |               |                |
|                       | SAFETY STANDARDS   | UL60950-1, TUV EN60950-1 approved   |                                  |               |                |
|                       | WITHSTAND VOLTAGE  | I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC   |                                  |               |                |
|                       | ISOLATION RESISTANCE   | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC/ 500VDC / 25°C / 70% RH  |                                  |               |                |
|                       | EMC EMISSION   | Compliance to EN55022 (CISPR22) Class B, EN61000-3-2,-3   |                                  |               |                |
| NOTE                  | EMC IMMUNITY   | Compliance to EN61000-4-2,3,4,5,6,8,11, heavy industry level, criteria A  |                                  |               |                |
|                       | MTBF   | 207.1Khrs min. MIL-HDBK-217F (25°C)   |                                  |               |                |
|                       | DIMENSION  | 101.6*50.8*29mm (L*W*H)   |                                  |               |                |
|                       | PACKING  | 0.2Kg; 72pcs/15.4Kg/0.82CUFT  |                                  |               |                |
|                       | 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.<br>5. Derating may be needed under low input voltages. Please check the derating curve for more details. |   |                                  |               |                |

## ■ Mechanical Specification

Unit:mm



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

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

≡ : Grounding required

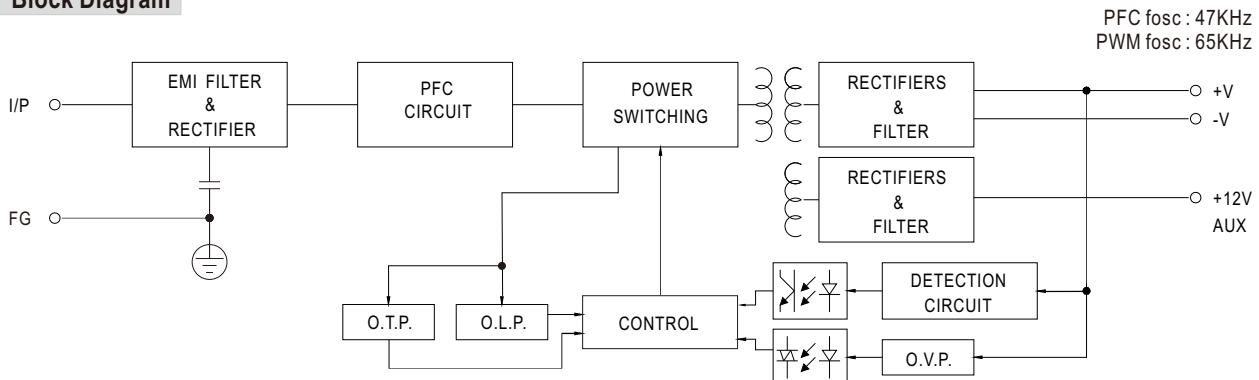
DC Output Connector (CN2) : JST B4P-VH or equivalent

| Pin No. | Assignment | Mating Housing           | Terminal                          |
|---------|------------|--------------------------|-----------------------------------|
| 1,2     | DC COM     | JST VHR<br>or equivalent | JST SVH-21T-P1.1<br>or equivalent |
| 3,4     | +V         |                          |                                   |

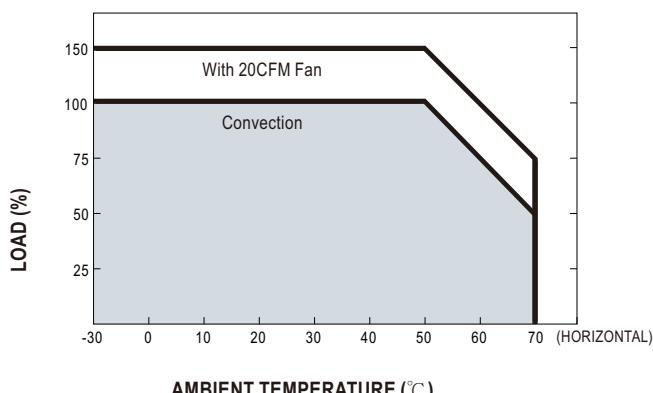
 FAN Connector(CN105) : JST B<sup>Y</sup>B-PH-K-S or equivalent

| Pin No. | Assignment | Mating Housing             | Terminal  |
|---------|------------|----------------------------|---|
| 1       | +12V       | JST PHR-Y<br>or equivalent | JST SPH- <sup>Y</sup> T-P <sub>Y</sub> S<br>or equivalent |

## ■ Block Diagram



## ■ Output Derating



## ■ Output Derating VS Input Voltage

