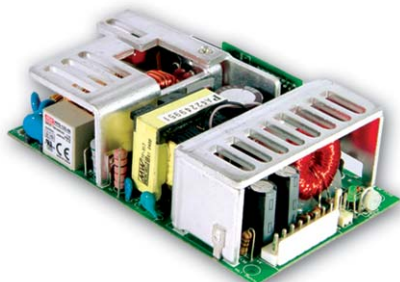




## 125W Triple Output with PFC Function

## PPT-125 series



## ■ Features :

- Universal AC input / Full range
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage
- PWM control and regulated
- High power density 6.117W/inch<sup>3</sup>
- LED indicator for power on
- 100% full load burn-in test
- 125W with 18CFM FAN
- 5"x3" compact size
- 3 years warranty

User's Manual



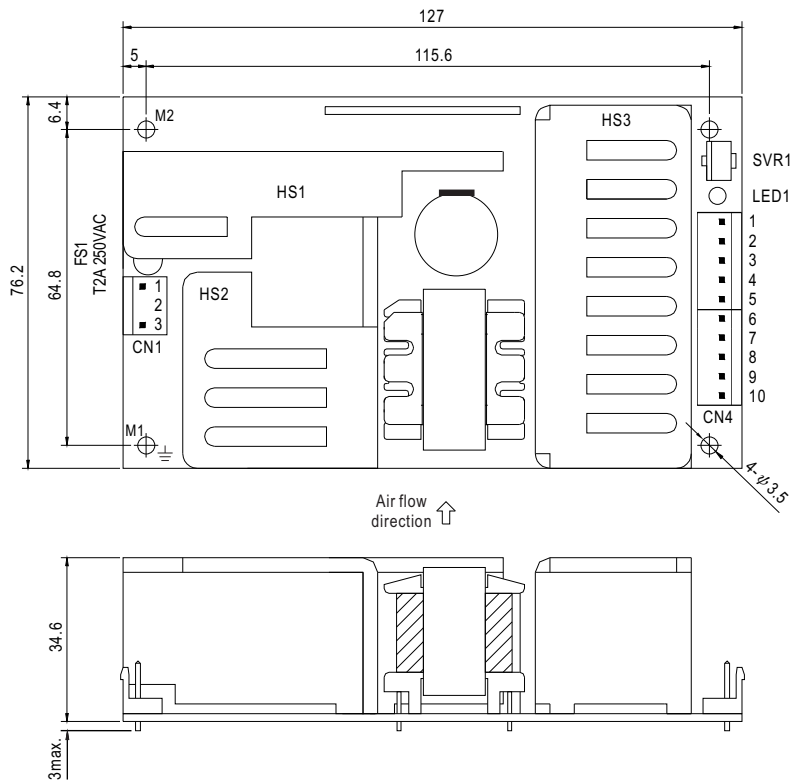
## SPECIFICATION



| MODEL                    |  | PPT-125A   |           |              | PPT-125B                         |             |              | PPT-125C         |              |              | PPT-125D   |              |              |
|--------------------------|--|--|-----------|--------------|----------------------------------|-------------|--------------|------------------|--------------|--------------|--|--------------|--------------|
| OUTPUT                   | OUTPUT NUMBER  | CH1  | CH2       | CH3          | CH1                              | CH2         | CH3          | CH1              | CH2          | CH3          | CH1  | CH2          | CH3          |
|                          | DC VOLTAGE   | 3.3V   | 5V        | 12V          | 5V                               | 12V         | -12V         | 5V               | 15V          | -15V         | 5V   | 24V          | 12V          |
|                          | RATED CURRENT  | 10A  | 8A        | 0.5A         | 11.5A                            | 3A          | 0.5A         | 11A              | 2.5A         | 0.5A         | 7A   | 2.5A         | 0.5A         |
|                          | CURRENT RANGE (convection)   | 1 ~ 10A  | 0.8 ~ 8A  | 0.05 ~ 0.5A  | 1 ~ 11.5A                        | 0.3 ~ 3A    | 0.05 ~ 0.5A  | 1 ~ 11A          | 0.25 ~ 2.5A  | 0.05 ~ 0.5A  | 1 ~ 7A   | 0.25 ~ 2.5A  | 0.05 ~ 0.5A  |
|                          | CURRENT RANGE (18CFM FAN)  | 1 ~ 12.5A  | 0.8 ~ 10A | 0.05 ~ 0.63A | 1 ~ 14.38A                       | 0.3 ~ 3.75A | 0.05 ~ 0.63A | 1 ~ 13.75A       | 0.25 ~ 3.13A | 0.05 ~ 0.63A | 1 ~ 8.75A  | 0.25 ~ 3.13A | 0.05 ~ 0.63A |
|                          | RATED POWER (convection)   | 79W  |           |              | 99.5W                            |             |              | 100W             |              |              | 101W   |              |              |
|                          | RATED POWER (18CFM FAN)  | 98.81W   |           |              | 124.46W                          |             |              | 125.15W          |              |              | 126.43W  |              |              |
|                          | RIPPLE & NOISE (max.) Note.2   | 100mVp-p   | 100mVp-p  | 120mVp-p     | 100mVp-p                         | 120mVp-p    | 120mVp-p     | 100mVp-p         | 150mVp-p     | 150mVp-p     | 100mVp-p   | 240mVp-p     | 120mVp-p     |
|                          | VOLTAGE ADJ. RANGE   | CH1:3.13 ~ 3.46V   |           |              | CH1:4.75 ~ 5.25V                 |             |              | CH1:4.75 ~ 5.25V |              |              | CH1:4.75 ~ 5.25V   |              |              |
|                          | VOLTAGE TOLERANCE Note.3   | ±3.0%  | ±5.0%     | ±6.0%        | ±3.0%                            | ±5.0%       | ±6.0%        | ±3.0%            | ±5.0%        | ±6.0%        | ±3.0%  | ±5.0%        | ±6.0%        |
|                          | LINE REGULATION  | ±0.5%  | ±0.5%     | ±0.5%        | ±0.5%                            | ±0.5%       | ±0.5%        | ±0.5%            | ±0.5%        | ±0.5%        | ±0.5%  | ±0.5%        | ±0.5%        |
|                          | LOAD REGULATION  | ±3.0%  | ±3.0%     | ±5.0%        | ±3.0%                            | ±3.0%       | ±5.0%        | ±3.0%            | ±3.0%        | ±5.0%        | ±3.0%  | ±3.0%        | ±5.0%        |
|                          | SETUP, RISE TIME   | 1000ms, 30ms/230VAC  |           |              | 2000ms, 30ms/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>0.93/230VAC   |           |              | PF>0.98/115VAC at full load      |             |              |                  |              |              |  |              |              |
|                          | EFFICIENCY (Typ.)  | 75%  |           |              | 78%                              |             |              | 78%              |              |              | 78%  |              |              |
|                          | AC CURRENT (Typ.)  | 1.7A/115VAC  |           |              | 0.75A/230VAC                     |             |              |                  |              |              |  |              |              |
|                          | INRUSH CURRENT (Typ.)  | COLD START 24A/230VAC  |           |              |                                  |             |              |                  |              |              |  |              |              |
|                          | LEAKAGE CURRENT  | <2mA / 240VAC  |           |              |                                  |             |              |                  |              |              |  |              |              |
| PROTECTION               | OVERLOAD   | 130 ~ 160% rated output power<br>Protection type : Fold back current limiting, recovers automatically after fault condition is removed |           |              |                                  |             |              |                  |              |              |  |              |              |
|                          | OVER VOLTAGE   | CH1:3.6 ~ 4.45V  |           |              | CH1:5.75 ~ 6.75V                 |             |              | CH1:5.75 ~ 6.75V |              |              | CH1:5.75 ~ 6.75V<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |              |              |
| ENVIRONMENT              | WORKING TEMP., HUMIDITY  | -20 ~ +70℃ (Refer to "Derating Curve")   |           |              |                                  |             |              |                  |              |              |  |              |              |
|                          | WORKING TEMP.  | 20 ~ 90% RH non-condensing   |           |              |                                  |             |              |                  |              |              |  |              |              |
|                          | STORAGE TEMP., HUMIDITY  | -40 ~ +85℃, 10 ~ 95% RH  |           |              |                                  |             |              |                  |              |              |  |              |              |
|                          | TEMP. COEFFICIENT  | ±0.05%/℃ (0 ~ 50℃)   |           |              |                                  |             |              |                  |              |              |  |              |              |
|                          | VIBRATION  | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes   |           |              |                                  |             |              |                  |              |              |  |              |              |
| SAFETY & EMC<br>(Note 4) | SAFETY STANDARDS   | UL62368-1, TUV BS EN/EN62368-1, AS/NZS 62368.1 , EAC TP TC 004 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 / 25℃/ 70% RH   |           |              |                                  |             |              |                  |              |              |  |              |              |
|                          | EMC EMISSION   | Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020   |           |              |                                  |             |              |                  |              |              |  |              |              |
|                          | EMC IMMUNITY   | Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55024, light industry level, criteria A, EAC TP TC 020                           |           |              |                                  |             |              |                  |              |              |  |              |              |
| OTHERS                   | MTBF   | 94.7Khrs min. MIL-HDBK-217F (25℃)  |           |              |                                  |             |              |                  |              |              |  |              |              |
|                          | DIMENSION  | 127*76.2*34.6mm (L*W*H)  |           |              |                                  |             |              |                  |              |              |  |              |              |
|                          | PACKING  | 0.37Kg; 36pcs/14.3Kg/0.96CUFT  |           |              |                                  |             |              |                  |              |              |  |              |              |
| NOTE                     | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ 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. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. 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." (as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a> )<br>5. Heat Sink HS1,HS2 & HS3 can not be shorted.<br>6. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft).<br>※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a> |  |           |              |                                  |             |              |                  |              |              |  |              |              |

## 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 (CN4) : JST B5P-VH\*2 or equivalent

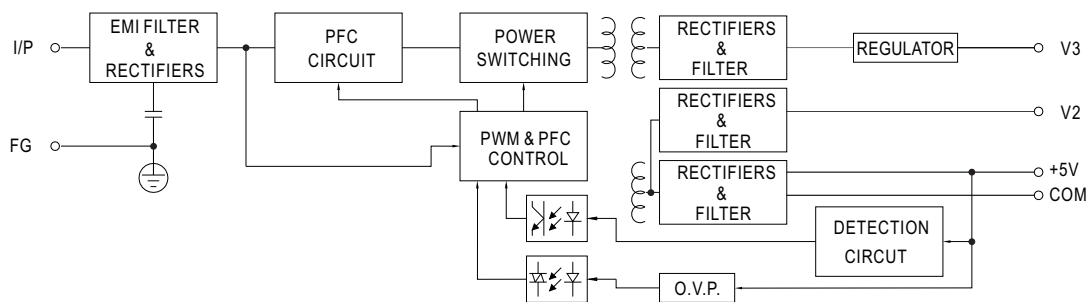
| Pin No. | Assignment | Mating Housing        | Terminal                       |
|---------|------------|-----------------------|--------------------------------|
| 1       | CH3        | JST VHR or equivalent | JST SVH-21T-P1.1 or equivalent |
| 2,3     | CH2        |                       |                                |
| 4~8     | GND        |                       |                                |
| 9,10    | CH1        |                       |                                |

$\perp$  : Grounding Required

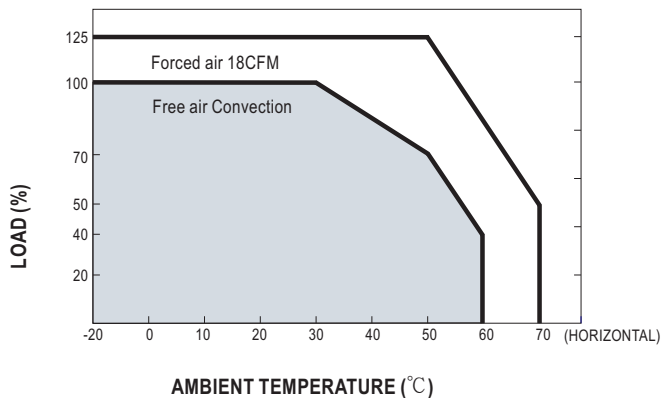


- 1.HS1,HS2 & HS3 cannot be shorted.
- 2.M1 is safety ground. For better EMC performance,Please secure an electrical connection between M1,M2 and chassis grounding.

## Block Diagram



## Derating Curve



## Output Derating VS Input Voltage

