



# MEAN WELL

SWITCHING POWER SUPPLY  
ISO-9001 CERTIFIED MANUFACTURER

## LPP-100 SERIES

- .LOW COST, HIGH RELIABILITY
- .105°C OUTPUT CAPACITOR
- .INTERNATIONAL AC INPUT RANGE
- .BUILT IN EMI FILTER, LOW RIPPLE NOISE
- . HIGH EFFICIENCY, LOW WORKING TEMPERATURE
- .SOFT-START CIRCUIT, LIMITING AC SURGE CURRENT
- .SHORT CIRCUIT, OVERLOAD, OVER VOLTAGE PROTECTED

- .COMPACT SIZE, LIGHT WEIGHT
- .100% FULL LOAD BURN-IN TEST
- .BUILT IN PFC CIRCUIT
- .POWER FACTOR : 0.98 TYP.

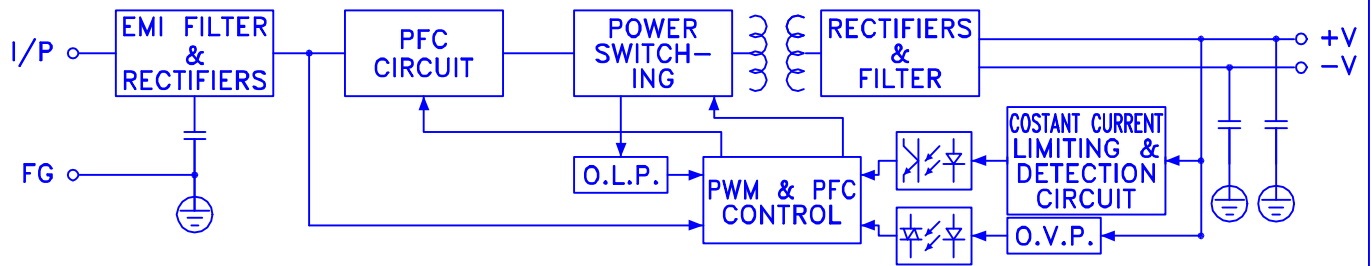


| SPECIFICATION             | MODEL | LPP-100<br>-3.3  | LPP-100<br>-5 | LPP-100<br>-7.5 | LPP-100<br>-12 | LPP-100<br>-13.5 | LPP-100<br>-15 | LPP-100<br>-24 | LPP-100<br>-27 | LPP-100<br>-48 |
|---------------------------|-------|--|---------------|-----------------|----------------|------------------|----------------|----------------|----------------|----------------|
| DC OUTPUT VOLTAGE         |       | 3.3V   | 5V            | 7.5V            | 12V            | 13.5V            | 15V            | 24V            | 27V            | 48V            |
| OUTPUT V. TOLERANCE       |       | ±2%  | ±2%           | ±2%             | ±2%            | ±2%              | ±2%            | ±1%            | ±1%            | ±1%            |
| OUTPUT RATED CURRENT      |       | 20A  | 20A           | 13.5A           | 8.5A           | 7.5A             | 6.7A           | 4.2A           | 3.8A           | 2.1A           |
| OUTPUT CURRENT            |       | 0-20A  | 0-20A         | 0-13.5A         | 0-8.5A         | 0-7.5A           | 0-6.7A         | 0-4.2A         | 0-3.8A         | 0-2.1A         |
| RIPPLE & NOISE            |       | 100mV  | 100mV         | 100mV           | 100mV          | 100mV            | 100mV          | 150mV          | 150mV          | 250mV          |
| LINE REGULATION           |       | ±0.5%  | ±0.5%         | ±0.5%           | ±0.5%          | ±0.5%            | ±0.5%          | ±0.5%          | ±0.5%          | ±0.5%          |
| LOAD REGULATION           |       | ±1%  | ±1%           | ±1%             | ±0.5%          | ±0.5%            | ±0.5%          | ±0.5%          | ±0.5%          | ±0.5%          |
| RATED OUTPUT POWER        |       | 66W  | 100W          | 101.25W         | 102W           | 101.25W          | 100.5W         | 100.8W         | 102.6W         | 100.8W         |
| EFFICIENCY                |       | 69%  | 75%           | 76%             | 79%            | 79%              | 80%            | 83%            | 83%            | 83%            |
| DC VOLTAGE ADJ.           |       | CH1:+10,-5%  |               |                 |                |                  |                |                |                |                |
| INPUT VOLTAGE RANGE       |       | 85~264VAC 47~63Hz 120~370VDC   |               |                 |                |                  |                |                |                |                |
| AC CURRENT                |       | 1.7A/115V 0.75A/230V   |               | 3.3V: 1.2A/115V |                | 0.6A/230V        |                |                |                |                |
| INRUSH CURRENT            |       | COLD START 40A/230V  |               |                 |                |                  |                |                |                |                |
| LEAKAGE CURRENT           |       | <2mA/240VAC  |               |                 |                |                  |                |                |                |                |
| OVERLOAD PROTECTION       |       | 105~150% TYPE:CONSTANT CURRENT LIMITING RESET:AUTO RECOVERY              |               |                 |                |                  |                |                |                |                |
| OVER VOLTAGE PROTECTION   |       | 115%~135% TYPE:SHUTDOWN RESET:RE POWER ON                                |               |                 |                |                  |                |                |                |                |
| TEMP. COEFFICIENT         |       | ±0.05% / °C (0~50°C)   |               |                 |                |                  |                |                |                |                |
| SETUP, RISE, HOLD UP TIME |       | 600ms, 30ms, 20ms/230VAC; 1.2s, 30ms, 20ms/115VAC                        |               |                 |                |                  |                |                |                |                |
| POWER FACTOR              |       | PF>0.95/230VAC, PF>0.98/115VAC   |               |                 |                |                  |                |                |                |                |
| VIBRATION                 |       | 10~500Hz, 2G 10min./1cycle, PERIOD FOR 60min. EACH AXES                  |               |                 |                |                  |                |                |                |                |
| 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:500VDC / 100M Ohms                               |               |                 |                |                  |                |                |                |                |
| WORKING TEMP., HUMIDITY   |       | -10°C~+60°C(REFER TO OUTPUT DERATING CURVE), 20%~90% RH                  |               |                 |                |                  |                |                |                |                |
| STORAGE TEMP., HUMIDITY   |       | -20°C~+85°C, 10%~95% RH  |               |                 |                |                  |                |                |                |                |
| DIMENSION                 |       | 222*62*35mm (L*W*H) PCB ONLY   |               |                 |                |                  |                |                |                |                |
| WEIGHT                    |       | 370gs  |               |                 |                |                  |                |                |                |                |
| SAFETY STANDARDS          |       | MEET UL1950, TUV EN60950   |               |                 |                |                  |                |                |                |                |
| EMC STANDARDS             |       | MEET EN55022 CLASS B, EN61000-4-2,3,4,5,6,8,11; ENV50204, EN61000-3-2,-3 |               |                 |                |                  |                |                |                |                |

NOTE : 1.ALL PARAMETERS ARE SPECIFIED AT 230VAC INPUT, RATED LOAD, 25°C AMBIENT.  
 2.TOLERANCE INCLUDE SET UP TOLERANCE, LINE REGULATION, LOAD REGULATION.  
 3.RIPPLE & NOISE ARE MEASURED AT 20MHz BY USING A 12" TWISTED PAIR TERMINATED WITH A 0.1uF & 47uF CAPACITOR.  
 4.LINE REGULATION IS MEASURED FROM LOW LINE TO HIGH LINE AT RATED LOAD.

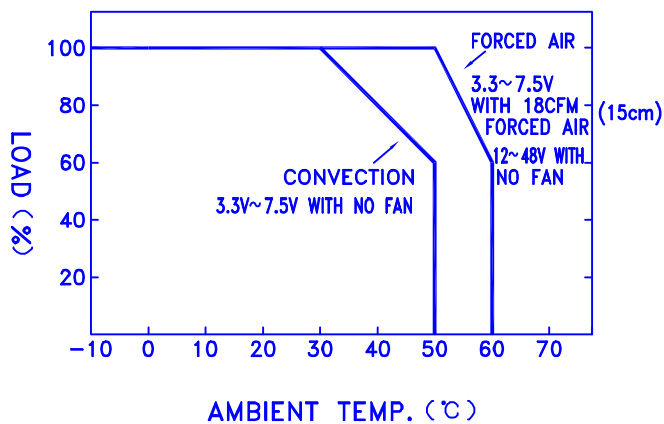
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## BLOCK DIAGRAM

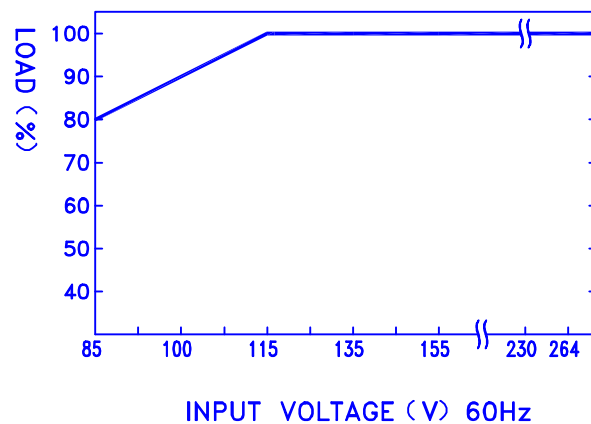


PFC fosc: 67KHz  
PWM fosc: 134KHz

## OUTPUT DERATING VS T<sub>a</sub>



## OUTPUT DERATING VS INPUT VOLTAGE



## DIMENSION (mm)

### ☒ TERMINAL PIN NO. ASSIGNMENT

- ☒ CN1 : JST B5P-VH  
PIN 1,3,5 : AC INPUT
- ☒ CN2 : JST B8P-VH  
PIN 1,2,3,4 : DC OUTPUT -V  
PIN 5,6,7,8 : DC OUTPUT +V

### ☒ MATING CONNECTORS

- ☒ CN1,2 MATING CONNECTOR TYPE  
JST VHR SERIES OR EQUIVALENT WITH  
JST SVH-21T-1.1 OR EQUIVALENT  
CRIMP TERMINALS.

