



200W Single Output with PFC Function

LHP-200 series

■ Features

- Universal AC input / Full range
- Built-in current sharing function(2 units)
- With power good signal output
- Built-in active PFC function
- Low leakage current<1.0mA
- Fanless design,Cooling by free air convection
- Protections: Short circuit / Overload / Over voltage / Over temperature
- 3 years warranty

■ Applications

- LED electronic signage
- LED display application
- LED luminous characters
- LED TV wall
- LED channel letter

■ Description

LHP-200 series is a 200W LED display power solution. The ultra low profile design that allows the height and weight of the sign module to be slim. It greatly simplifies the delivery and installation process. Accounting for high efficiency and energy saving, the series effectively achieves electricity reduction. It is suitable for LED signage display, moving sign, LED channel letter and LED TV wall etc.

■ Model Encoding





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SPECIFICATION

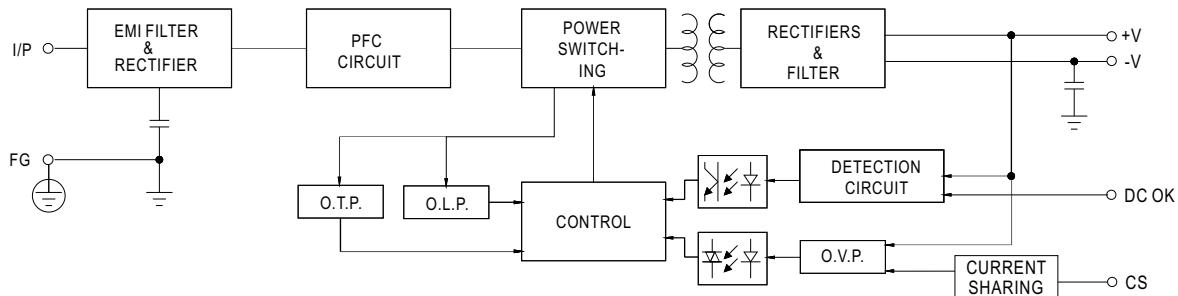
| MODEL | LHP-200-4.2 | LHP-200-4.6 | LHP-200-5 |
|-----------------------|--|---|------------------------------------|
| OUTPUT | DC VOLTAGE | 4.2V | 4.6V |
| | RATED CURRENT | 40A | 40A |
| | RATED POWER(convection) | 168W | 184W |
| | RIPPLE & NOISE (max.) Note.2 | 200mVp-p | 200mVp-p |
| | VOLTAGE RANGE | 3.8~4.2V | 4.2~4.6V |
| | VOLTAGE TOLERANCE Note.3 | ±5.0% | |
| | LINE REGULATION | ±1.0% | |
| | LOAD REGULATION | ±1.0% | |
| | SETUP, RISE TIME | 2000ms, 100ms / 115AC | 2000ms, 100ms / 230AC at full load |
| INPUT | HOLD UP TIME (Typ.) | 10ms/230VAC | 10ms/115VAC |
| | VOLTAGE RANGE Note.4 | 90 ~ 264VAC | |
| | FREQUENCY RANGE | 47 ~ 63Hz | |
| | POWER FACTOR (Typ.) | PF ≥ 0.95 / 230VAC at full load | |
| | EFFICIENCY (Typ.) | 90% | 91% |
| | AC CURRENT (Typ.) | 2.2A/115VAC | 1.1A/230VAC |
| | INRUSH CURRENT (Typ.) | Cold start 40A/115VAC | 80A/230VAC |
| PROTECTION | LEAKAGE CURRENT | <1.0mA / 240VAC | |
| | SHORT CIRCUIT | Protection type : recovers automatically after fault condition is removed | |
| | OVER LOAD | 125 ~ 175% rated output power | |
| | | Protection type : Hiccup mode, recovers automatically after fault condition is removed | |
| | OVER VOLTAGE | 5.5~ 6V | |
| | | Protection type : Hiccup mode, recovers automatically after fault condition is removed | |
| FUNCTION | OVER TEMPERATURE | Protection type : Shut down O/P voltage, recovers automatically after temperature goes down | |
| | POWER GOOD | 2.3~3.3V,10mA | |
| ENVIRONMENT | WORKING TEMP. | -40 ~ +80°C (Refer to "Derating Curve") | |
| | STORAGE TEMP., HUMIDITY | -40 ~ +90°C, 5~ 95% RH non-condensing | |
| | TEMP. COEFFICIENT | ±0.02%/°C (0 ~ 50°C) | |
| | VIBRATION | 1 ~ 200Hz, 2G 10min./1cycle, period for 30min. each along X, Y, Z axes | |
| SAFETY & EMC (Note.6) | SAFETY STANDARDS | UL60950-1,EN60950-1 approved | |
| | WITHSTAND VOLTAGE | I/P-O/P:3.0KVAC | |
| | ISOLATION RESISTANCE | I/P-O/P, I/P-FG,O/P-FG: ≥10M Ohms/500VDC/25°C / 70%RH | |
| | EMC EMISSION | Compliance to EN55032,GB/T9254 Class B,EN61000-3-2,EN61000-3-3 | |
| | EMC IMMUNITY | Compliance to EN55024,EN61000-4-2,3,4,5,6,8,11; | |
| OTHERS | MTBF | 100K hrs min. MIL-HDBK-217F (25°C) | |
| | DIMENSION | 220*50*26mm (L*W*H) | |
| | PACKING | 0.39kg/30pcs/13.82kg/0.69CUFT | |
| NOTE | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance :includes set up tolerance, line regulation and load regulation. 4. Derating may be needed under low input voltages. Please check the derating curve for more details. 5. The ambient temperature derating of 5°C /1000m is needed for operating altitude greater than 2000m(6500ft) 6. 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." (as available on http://www.meanwell.com) | | |



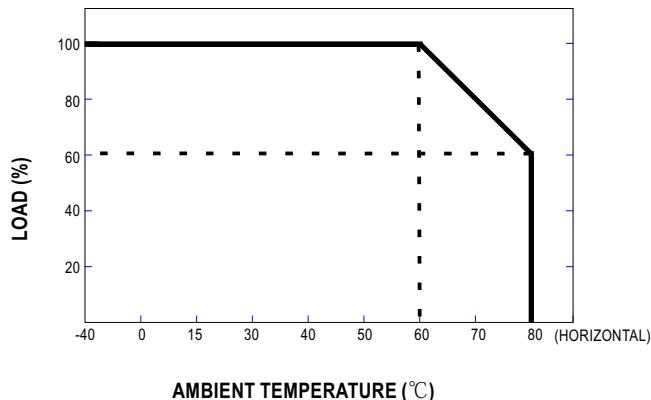
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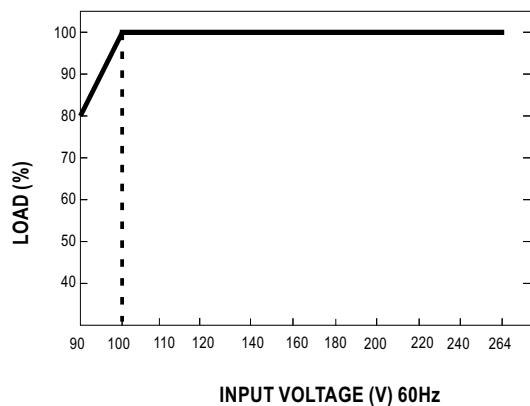
■ Block Diagram

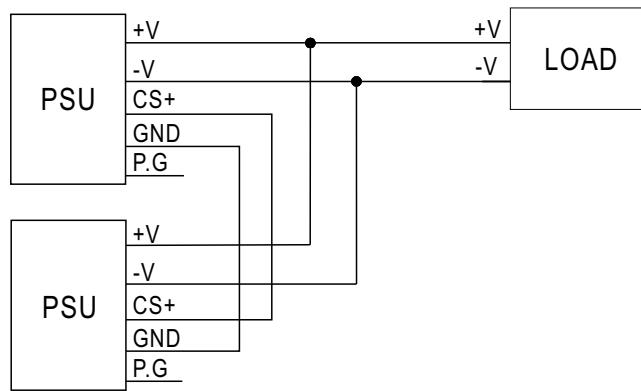


■ Derating Curve



■ STATIC CHARACTERISTIC



■ Function Manual**1. Share function**

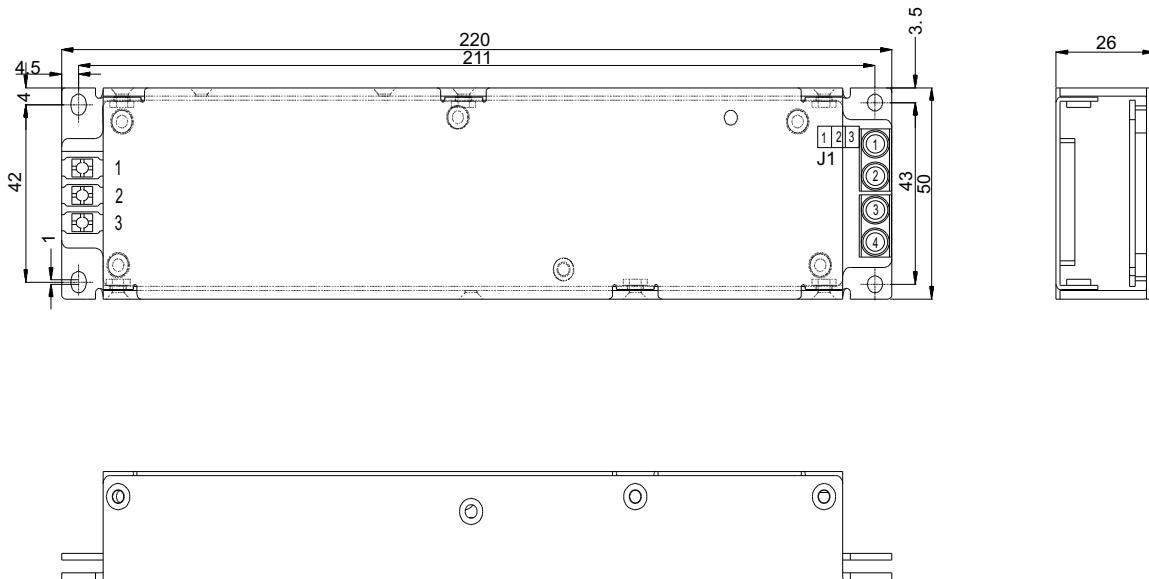


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■ Mechanical Specification

Unit:mm



AC Input Terminal pin NO. Assignment

| Pin No. | Assignment | Terminal | Max mounting torque |
|---------|------------|----------------------|---------------------|
| 1 | \pm | (Elinker) | |
| 2 | AC/N | LW1C-8.25-3P-130-04A | |
| 3 | AC/L | | 5Kgf-cm |

DC Output Terminal pin NO. Assignment

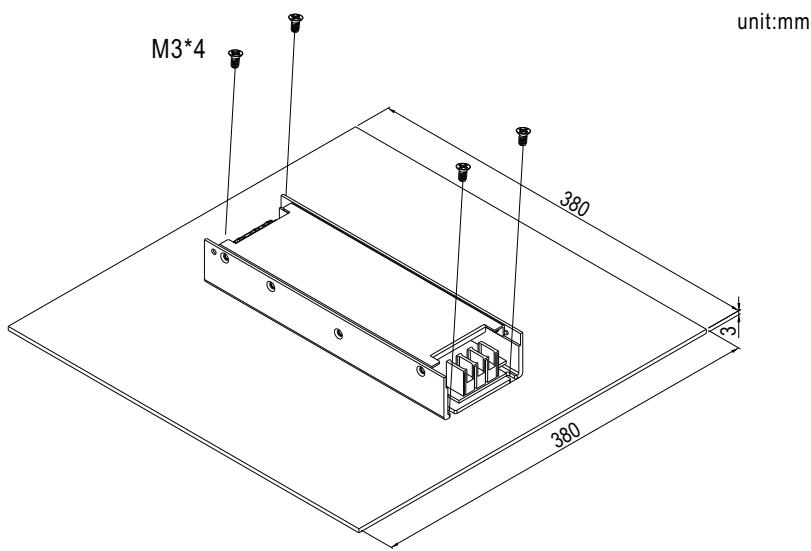
| Pin No. | Assignment | Terminal | Max mounting torque |
|---------|------------|----------------------|---------------------|
| 1,2 | +V | (Elinker) | |
| 3,4 | -V | LW1B-8.25-6P-130-05A | 5Kgf-cm |

Function Connector(J1)

| Pin No. | Assignment | Terminal |
|---------|----------------|--------------------|
| 1 | CS+ | |
| 2 | GND | JIESHITAI |
| 3 | PG(Power Good) | A2001A-03-A1MA-P-D |

■ Installation**1. Operate with additional aluminum plate**

In order to meet the "Derating Curve" and the "Static Characteristics", LHP-200 series must be installed onto an aluminum plate (or the cabinet of the same size) on the bottom. The size of the suggested aluminum plate is shown as below. And for optimizing thermal performance, the aluminum plate must have an even and smooth surface (or coated with thermal grease), and LHP-200 series must be firmly mounted at the center of the aluminum plate.

**2. For heat dissipation, at least 5cm installation distance around the PSU should be kept, shown as below:**