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| CUSTOMER | PROJECT | DATE |
| TYPE     | QTY     | PO # |

## LS-PSU-12V-350W · LS-PSU-24V-350W

Enclosed power supply · 12 VDC / 24 VDC · 350 W · IP20



IP20

UL 62368-1

1U PROFILE

**12 / 24 VDC**

Output voltage

**348 / 350.4 W**

Rated power

**29 / 14.6 A**

Rated current

**90–132 / 180–264 VAC**

Switch-selectable input

**85 / 88%**

Typical efficiency

**30 mm**

1U low profile

### Description

Switching power supply in a perforated metal enclosure, available in 12 VDC and 24 VDC at 350 W. Its 30 mm 1U low profile, automatically controlled fan and switch-selectable input range make it a versatile choice for powering low-voltage LED products.

IP20 rating: for indoor installation in a dry location.

### Key features

- AC input range selectable by switch
- Withstands 300 VAC surge input for 5 s
- Protections: short circuit, overload, overvoltage, over-temperature
- Built-in fan with automatic temperature-based ON/OFF control
- 1U low profile (30 mm)
- Withstands 5 G vibration test
- LED power-on indicator
- No-load power consumption < 0.75 W
- 100% full-load burn-in test
- Operates up to +70 °C
- Operating altitude up to 5,000 m
- High efficiency, long life and high reliability

### Ordering information

| MODEL           | IP   | POWER   | INPUT                | OUTPUT          | DIMENSIONS        |
|-----------------|------|---------|----------------------|-----------------|-------------------|
| LS-PSU-12V-350W | IP20 | 348 W   | 90–132 / 180–264 VAC | 12 VDC · 29 A   | 215 × 115 × 30 mm |
| LS-PSU-24V-350W | IP20 | 350.4 W | 90–132 / 180–264 VAC | 24 VDC · 14.6 A | 215 × 115 × 30 mm |

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## Specifications

| LS-PSU-12V-350W          |                                                                      | LS-PSU-24V-350W |
|--------------------------|----------------------------------------------------------------------|-----------------|
| OUTPUT                   |                                                                      |                 |
| Output voltage           | 12 VDC                                                               | 24 VDC          |
| Rated current            | 29 A                                                                 | 14.6 A          |
| Current range            | 0–29 A                                                               | 0–14.6 A        |
| Rated power              | 348 W                                                                | 350.4 W         |
| Ripple & noise (max.)    | 150 mVp-p                                                            |                 |
| Voltage adjustment range | 10.2–13.8 V                                                          | 21.6–28.8 V     |
| Voltage tolerance        | ±1.5%                                                                | ±1.0%           |
| Line regulation          | ±0.5%                                                                |                 |
| Load regulation          | ±1.0%                                                                | ±0.5%           |
| Setup / rise time        | 1300 ms / 50 ms at 230 VAC · 1300 ms / 50 ms at 115 VAC (full load)  |                 |
| Hold-up time (typ.)      | 16 ms at 230 VAC · 12 ms at 115 VAC (full load)                      |                 |
| INPUT                    |                                                                      |                 |
| Voltage range            | 90–132 VAC / 180–264 VAC by switch · 240–370 VDC (switch on 230 VAC) |                 |
| Frequency                | 47–63 Hz                                                             |                 |
| Efficiency (typ.)        | 85%                                                                  | 88%             |
| AC current (typ.)        | 6.8 A at 115 VAC · 3.4 A at 230 VAC                                  |                 |
| Inrush current (typ.)    | Cold start 60 A at 115 VAC · 60 A at 230 VAC                         |                 |
| Leakage current          | < 2 mA at 240 VAC                                                    |                 |
| PROTECTION               |                                                                      |                 |
| Overload                 | 110–140% of rated output power · hiccup mode, auto-recovery          |                 |
| Overvoltage              | 13.8–16.2 V                                                          | 28.8–33.6 V     |
| Overvoltage response     | Hiccup mode, auto-recovery                                           |                 |
| Over-temperature         | Hiccup mode, auto-recovery                                           |                 |

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## Specifications (continued)

| LS-PSU-12V-350W         |  | LS-PSU-24V-350W                                                                                                                                              |  |
|-------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| ENVIRONMENT             |  |                                                                                                                                                              |  |
| Fan ON/OFF control      |  | ON at RTH3 ≥ 50 °C · OFF at ≤ 40 °C (typ.)                                                                                                                   |  |
| Operating temperature   |  | –25 °C to +70 °C (see derating curve)                                                                                                                        |  |
| Operating humidity      |  | 20–90% RH, non-condensing                                                                                                                                    |  |
| Storage                 |  | –40 °C to +85 °C · 10–95% RH                                                                                                                                 |  |
| Temperature coefficient |  | ±0.03%/°C (0–50 °C)                                                                                                                                          |  |
| Vibration               |  | 10–500 Hz, 5 G, 10 min/cycle, 60 min along each X, Y, Z axis                                                                                                 |  |
| Ingress protection      |  | IP20                                                                                                                                                         |  |
| SAFETY & EMC            |  |                                                                                                                                                              |  |
| Safety standards        |  | IEC/UL 62368-1 · BSMI CNS14336-1 · EAC TP TC 004 · KC K60950-1 · BIS IS13252 (Part 1):2010 / IEC 60950-1:2005 · AS/NZS 62368.1 · design per BS EN/EN 62368-1 |  |
| Withstand voltage       |  | Input/output 3 kVAC · input/ground 2 kVAC · output/ground 0.5 kVAC                                                                                           |  |
| Isolation resistance    |  | Input/output, input/ground, output/ground: 100 MΩ at 500 VDC, 25 °C, 70% RH                                                                                  |  |
| EMC emission            |  | BSMI CNS13438 · EAC TP TC 020 · KC KN32, KN35                                                                                                                |  |
| EMC immunity            |  | BS EN/EN55035 · EAC TP TC 020 · KC KN32, KN35                                                                                                                |  |
| OTHER                   |  |                                                                                                                                                              |  |
| MTBF                    |  | 2,099,900 h min. (Telcordia SR-332) · 328,600 h min. (MIL-HDBK-217F, 25 °C)                                                                                  |  |
| Dimensions (L × W × H)  |  | 215 × 115 × 30 mm                                                                                                                                            |  |
| Weight                  |  | 0.76 kg                                                                                                                                                      |  |
| Packing                 |  | 15 units · 12.4 kg · 0.78 cu ft per carton                                                                                                                   |  |
| Warranty                |  | 5 years                                                                                                                                                      |  |

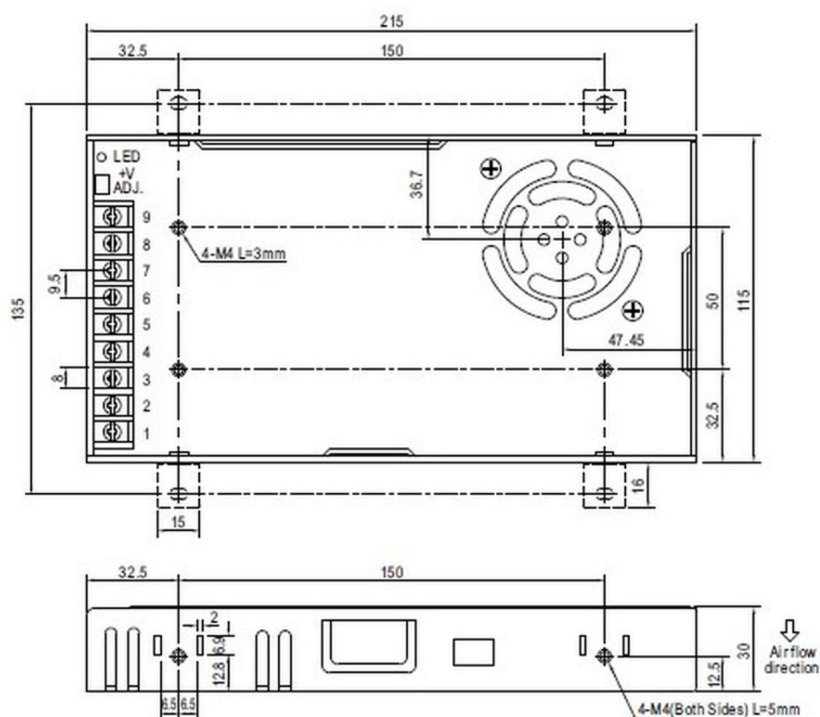
### Notes

1. Unless otherwise specified, values are measured at 230 VAC input, rated load and 25 °C ambient.
2. Ripple and noise measured at 20 MHz bandwidth using a 30 cm (12 in) twisted pair terminated with 0.1 μF and 47 μF parallel capacitors.
3. Voltage tolerance includes setup tolerance, line regulation and load regulation.
4. 150% peak load capability for up to 1 s; beyond that the unit enters hiccup mode and recovers once the load returns to rated current.
5. Above 2,000 m (6,500 ft) altitude, derate the max. ambient temperature by 5 °C per 1,000 m.
6. Does not meet the BS EN/EN61000-3-2 harmonic current requirements: do not use in the European Union on 220 VAC or higher mains in end devices above 75 W or that are part of a lighting system.
7. Switching the unit on and off very quickly may lengthen the setup time.

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## Dimensions

Dimensions in millimetres · top and side views



**Housing** 215 × 115 × 30 mm

**Bottom mounting** 4 × M4, L = 3 mm

**Side mounting** 4 × M4, L = 5 mm

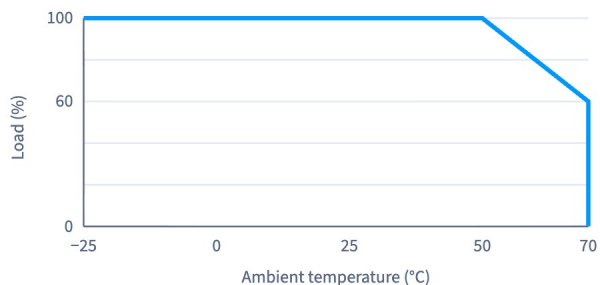
## Terminal block

| TERMINAL | FUNCTION       |
|----------|----------------|
| 1        | AC/L (line)    |
| 2        | AC/N (neutral) |
| 3        | Ground $\perp$ |
| 4 to 6   | DC output -V   |
| 7 to 9   | DC output +V   |

“+V ADJ.” potentiometer and power-on LED next to the terminal block.

## Derating curves

**Load vs ambient temperature (12 V and 24 V models, horizontal mounting)**



**Load vs input voltage (60 Hz)**

