

CUSTOMER	PROJECT	DATE
TYPE	QTY	PO #

LS-PSU-12V-200W · LS-PSU-24V-200W

Enclosed power supply · 12 VDC / 24 VDC · 200 W · IP20



IP20

UL 62368-1

1U PROFILE

12 / 24 VDC

Output voltage

204 / 211.2 W

Rated power

17 / 8.8 A

Rated current

**90–132 / 180–
264 VAC**

Switch-selectable input

87.5 / 89.5%

Typical efficiency

30 mm

1U low profile

Description

Switching power supply in a perforated metal enclosure, available in 12 VDC and 24 VDC at 200 W. Its 30 mm 1U low profile, free-air convection cooling 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
- Cooling by free-air convection
- 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-200W	IP20	204 W	90–132 / 180–264 VAC	12 VDC · 17 A	215 × 115 × 30 mm
LS-PSU-24V-200W	IP20	211.2 W	90–132 / 180–264 VAC	24 VDC · 8.8 A	215 × 115 × 30 mm

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Specifications

	LS-PSU-12V-200W	LS-PSU-24V-200W
OUTPUT		
Output voltage	12 VDC	24 VDC
Rated current	17 A	8.8 A
Current range	0–17 A	0–8.8 A
Rated power	204 W	211.2 W
Ripple & noise (max.)	120 mVp-p	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.)	87.5%	89.5%
AC current (typ.)	4 A at 115 VAC · 2.2 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-200W		LS-PSU-24V-200W	
ENVIRONMENT			
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		2,346,600 h min. (Telcordia SR-332) · 279,400 h min. (MIL-HDBK-217F, 25 °C)	
Dimensions (L × W × H)		215 × 115 × 30 mm	
Weight		0.66 kg	
Packing		15 units · 10.9 kg · 0.78 cu ft per carton	
Warranty		5 years	

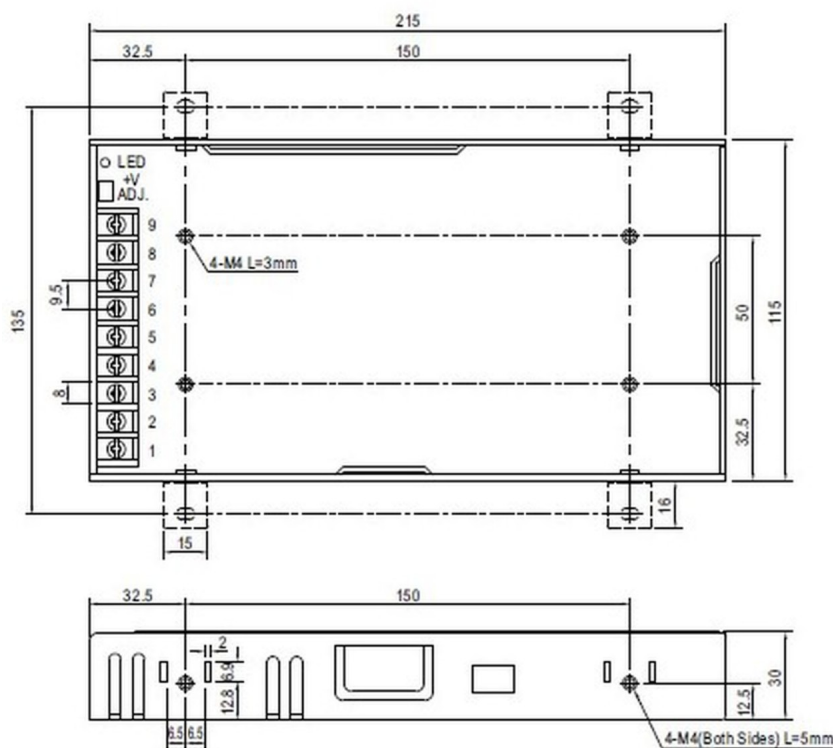
Notes

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

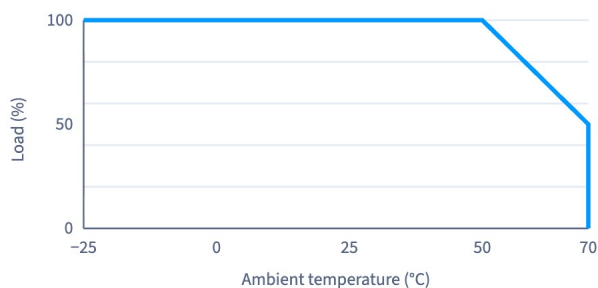
Terminal block

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)

