ENCLOSED AC-DC POWER SUPPLY

LRS-50 Series

50 W series | Single-output switching power supply

Output options: 5, 12, 15, 24, 48 V DC



01 Output ratings

Model	LRS-50-5	LRS-50-12	LRS-50-15	LRS-50-24	LRS-50-48
DC output voltage	5 V	12 V	15 V	24 V	48 V
Output current range	0-10 A	0-4.2 A	0-3.4 A	0-2.2 A	0-1.1 A
Efficiency	86%	86%	88%	88%	90%
Ripple and noise	120 mV p-p	120 mV p-p	120 mV p-p	150 mV p-p	200 mV p-p
Line regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
Load regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
DC voltage adjustment	±10%	±10%	±10%	±10%	±10%

02 Input, protection and insulation

Input voltage	85-264 V AC, 47-63 Hz; 120-373 V DC
Inrush current	45 A at 230 V AC (cold start)
Overload protection	110-150%: output shuts off; automatic recovery.
Other protection	Overcurrent protection / Short-circuit protection
Setup / rise time	230 V AC: 1000 / 30 ms; 115 V AC: 2000 / 30 ms. Hold-up time not specified.
Withstand voltage	Input-output: 1.5 kV; input-FG: 1.5 kV; output-FG: 0.5 kV (1 min).
Insulation resistance	100 MOhm at 500 V DC, input-output / input-FG / output-FG; 25 °C, 70% RH.

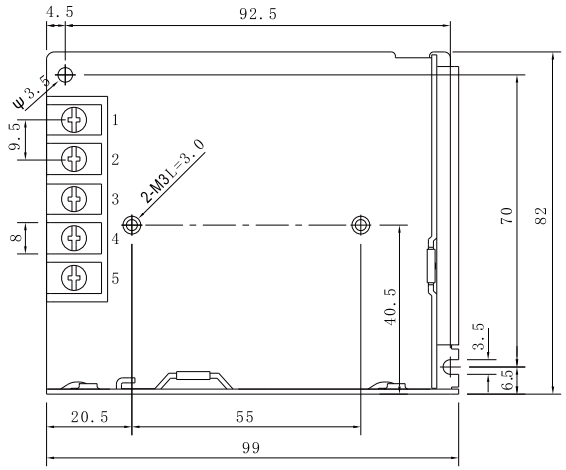
03 Operating and mechanical data

Operating temperature	-20 to +70 °C; see derating conditions on page 2.
Dimensions (L × W × H)	99 × 82 × 30 mm
Unit weight	0.23 kg
Packing	44×36.5×19.5 cm; 80 pcs; 16 kg

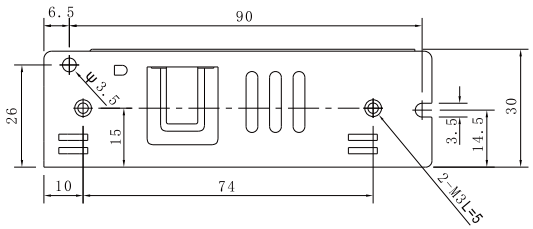
04 Mechanical outline

Dimensions in millimetres

Terminal layout and mounting holes



Side mounting holes



Overall length × width × height

99 × 82 × 30 mm

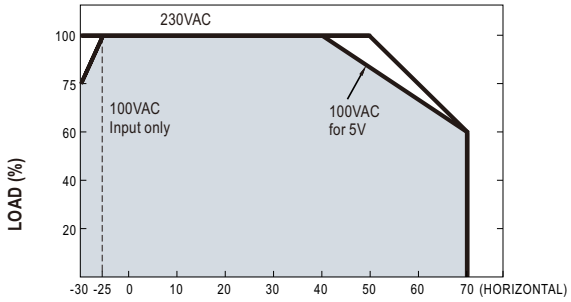
Terminal assignments

AC input	Protective earth	DC output -V	DC output +V
Pins 1, 2	Pin 3	Pin 4	Pin 5

05 Load derating

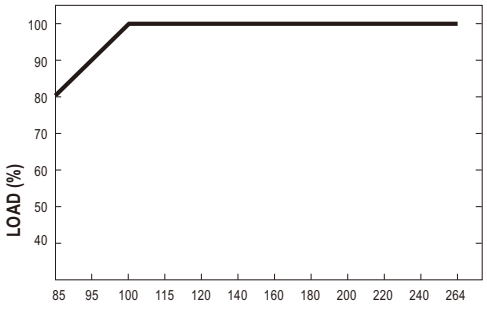
Ambient temperature

Derating Curve



AC input voltage

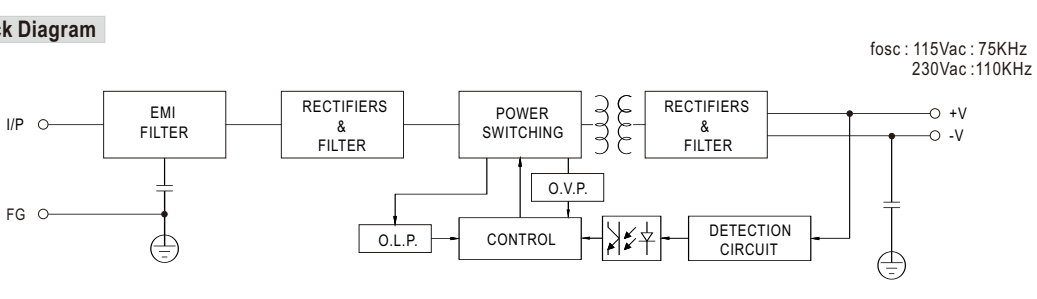
Static Characteristics



The 100 VAC for 5 V trace applies only to the 5 V option at that input. Use within -20 to +70 °C and the input limits on page 1. Follow the plotted frequency and mounting conditions. Percentage load does not establish the 5 V current rating.

06 Functional block diagram

Block Diagram



These model-matched reference diagrams do not establish new output ratings, protection limits, test results, certifications or warranty coverage.