

# INSTALLATION INSTRUCTION

## LR Series AC-DC/DC-DC Power Supply



**AC INPUT:**  $\sim$  100 – 240 Vac 3 A 50 - 60 Hz  
**DC INPUT:**  $\equiv$  125 – 300Vdc 3 A  
**LR models**  $P_o = 240$  W

**AC INPUT:**  $\sim$  100 – 240 Vac 4 A 50 - 60 Hz  
**DC INPUT:**  $\equiv$  125 – 300 Vdc 4 A  
**LRP models**  $P_o = 300$  W

**DC OUTPUTS:** 2x 12 V / 12.5 A (LRP2320 models)  
2x 12 V / 10 A (LR2320 models)  
2x 15 V / 10 A (LRP2540 models)  
2x 1.5 V / 8 A (LR2540 models)

### SAFETY APPROVALS

Approved to the latest edition of the following standards: CSA/UL62368-1, IEC62368-1 and CE Mark.



### INSTALLATION

For details and mechanical drawings, access the Data Sheet/App Notes link on the website at [www.belpowersolutions.com](http://www.belpowersolutions.com) and go to the respective LR series listing.

### CAUTION

These component level power supplies are intended exclusively for installation within other equipment by an industrial assembly operation or by professional installers. These are Class 1 power supplies; the unit must be properly connected to earth ground in end use. A component power supply should be installed in end-use equipment according to the requirements of the safety standard used for that equipment.

### PROTECTIVE EARTHING

The Power Supply must be properly grounded to mains protective earth termination at end use.

### FUSING

Standard models have single pole fusing. Fuse in L (Vi+) is rated 6.3 A 400 VAC (slow acting). Optional Double pole fusing is possible (Option F2) or No fuse (Option F0). Please refer to the [LR series datasheet](#).

### ENVIRONMENTAL CONDITIONS:

#### TRANSPORTATION & STORAGE:

Ambient Temperature Range: -55 °C to +85 °C

Relative Humidity Range: 5% to 95% RH Non-Condensing  
Altitude: to 2000m

#### OPERATION:

Ambient Temperature Range: -40°C to +71°C ;  
Natural Convection cooling, rated output power. Higher ambient temperature at reduced power is possible but Tc must not exceed 95°C.

Case Temperature (Tc) Range: -40°C to +95°C  
Relative Humidity Range: 10% to 90% RH Non-Condensing  
Altitude: to 2000m

**Options B, B1 Cooling Plates:** Where a cooling surface is available, we recommend the use of a cooling plate instead of the standard heat sink. The mounting system should ensure that the maximum case temperature Tc max is not exceeded.

### SERVICING

In case of failure, the Power Supply must be returned to our Authorized Service Center. There are no user serviceable parts in the Power Supply.

### WARRANTY

The company warrants each power supply of its manufacture for a period of five years from the date of original shipment. This warranty applies to defects in materials and workmanship that result in non-performance to published specifications. The product(s) must be returned to the Authorized Service Center for repair with a pre-assigned RMA number.

The company assumes no liabilities for consequential damages of any kind through the use or misuse of its products by any user. No other obligations are expressed or implied.

Please note that the specifications, terms, and conditions stated are subject to change without notice.

## NUCLEAR AND MEDICAL APPLICATIONS

This product was not designed, intended for use in, or authorized for use as critical components in equipment used in hazardous environments, or nuclear control systems without the express written consent of the respective divisional president of the company.

## TECHNICAL REVISIONS

The appearance of products, including safety agency certifications pictured on labels, may change depending on the date manufactured. Specifications are subject to change without notice.

## INPUT AND OUTPUT CONNECTOR DETAILS

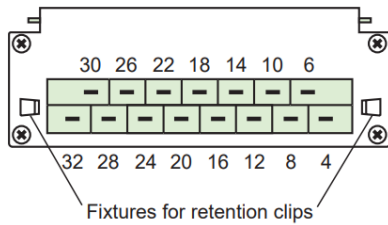


Figure 1. Connector Pin description

Pin No.	Name	Function
4	Vo1+	Positive Output 1
6	Vo1+	Positive Output 1
8	Vo1-	Negative Output 1
10	Vo1-	Negative Output 1
12	Vo2+	Positive Output 2
14	Vo2-	Negative Output 2
16	R	Output voltage adjust
18	i	Inhibit
20	D	Out OK
22	T	Current share
24 <sup>1</sup>	⊕	Protection earth PE and case
26 + 28	N~ / Vi-	Neutral line / Negative Input
30 + 32	L~ / Vi+	Phase line / Positive Input

<sup>1</sup> Leading pin (pre-connecting)

## MECHANICAL DIMENSIONS

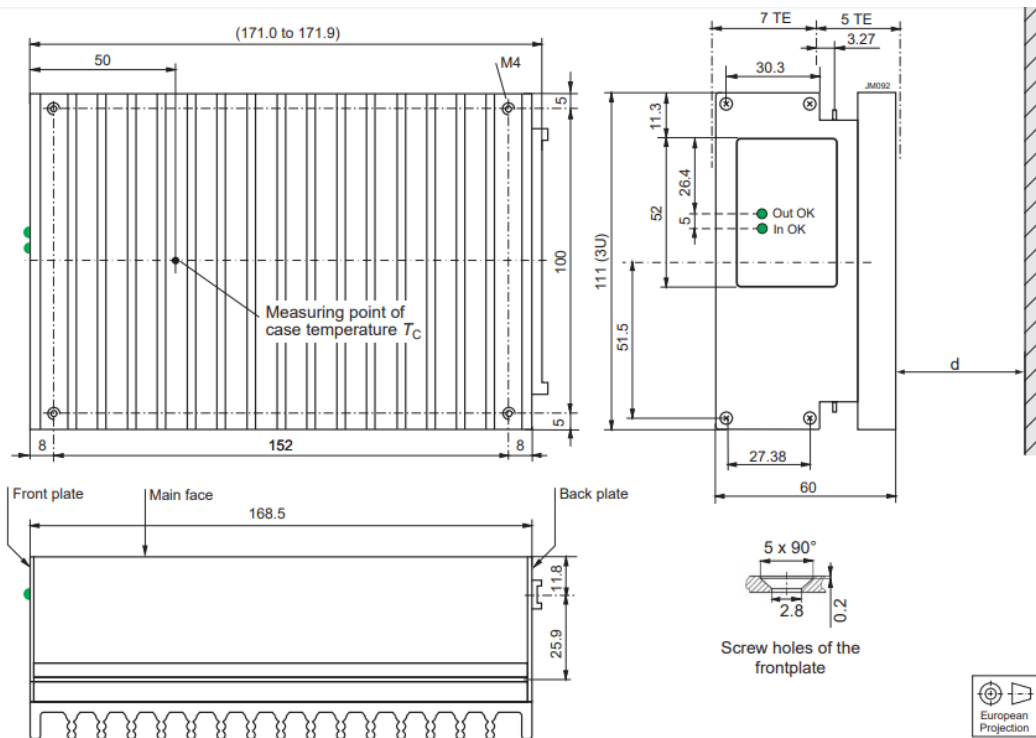


Figure 2. LR models dimension.  $d > 15\text{mm}$ .

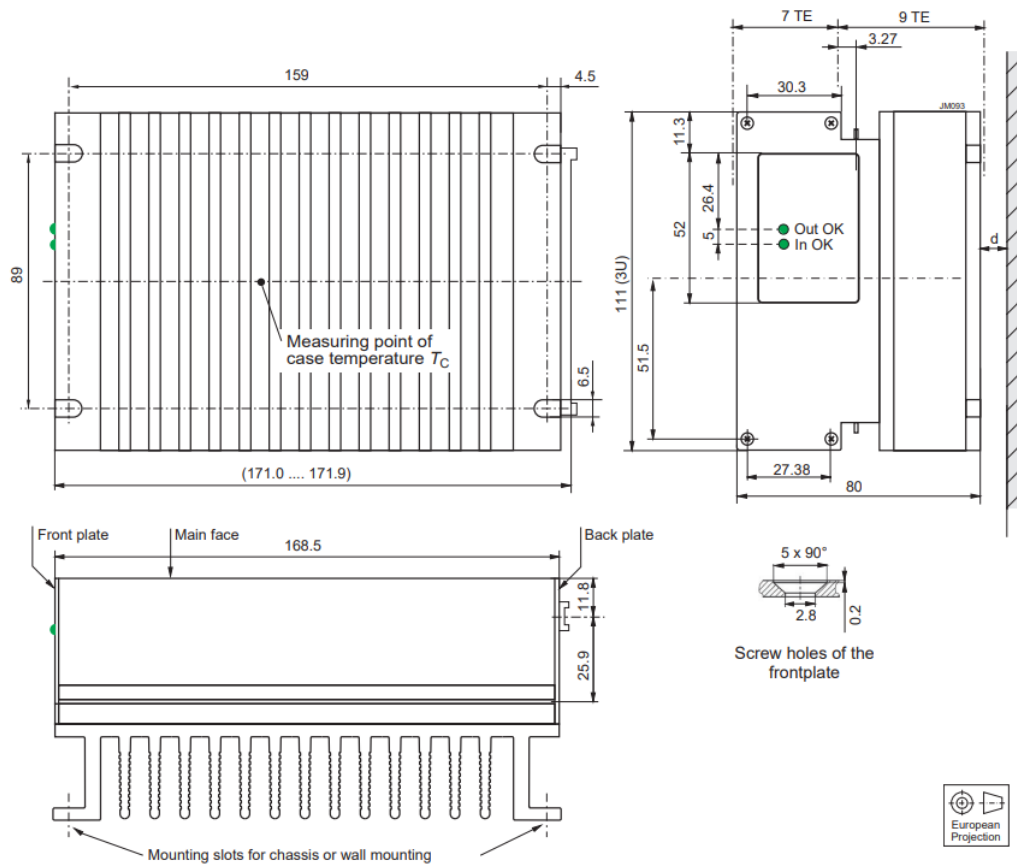


Figure 3. LRP models dimension.  $d > 15\text{mm}$ .

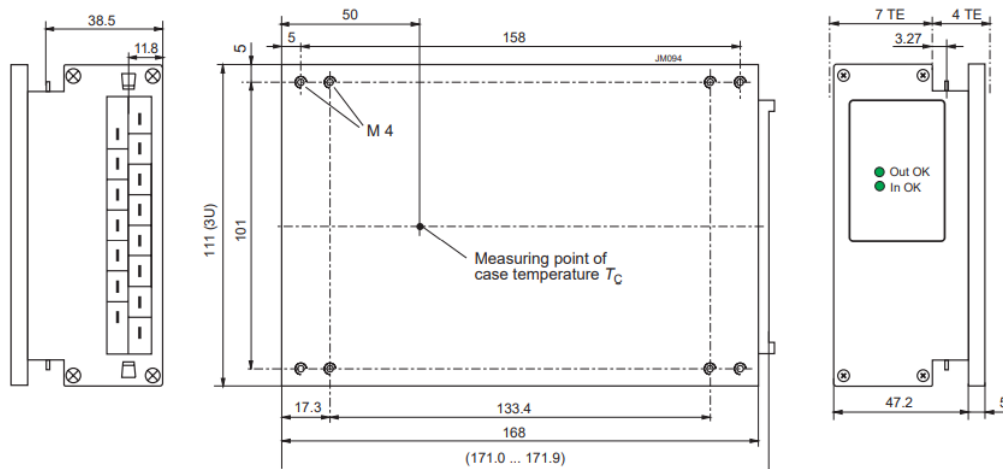


Figure 4. Models with cooling plate (Option B1).