

# **User Manual**





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# LiR24

The INOTEL LIR series rectifier has been developed by combining LiFePO4 (Lithium Iron Phosphate) battery technology with innovative power electronics engineering. As a result, the LiR24 offers its users:

- High efficiency
- Long lifespan
- Cost-effective
- · High stability

The device is equipped with two terminals; one for input and the other for output. The input terminal is connected to a 220V AC mains power supply. The output terminal is used to connect devices that are powered by 24V DC.

The device also features two LEDs. These LEDs indicate the status of the device's power supply and output. If the device is receiving power, the AC OK LED will be illuminated. The output status can be checked by pressing a button, which will illuminate the DC OK LED if the output is functioning properly.

Before using the LiR24 for the first time, charge it with a 220Vac supply voltage. For protection purposes, the battery is not shipped fully charged.

## **Technical Specifications**

Input Voltage	: 220 VAC (+/-%20)
Input Frequency	: 47.5 – 62.5 Hz
Input Current	: 0.5 <b>A</b>
Maximum Input Current	: 2A
Output Voltage	: 27V
Output Voltage Ripple	: <1%
Continuous Output Current	: 2.7A
Short-term Output Current	: 10 <b>A</b>
Operating Temperature	: -20°C, +70°C
Cooling Method	: Natural Convection
Internal Battery Capacity	: 6.5 Ah
Internal Battery Type	: LiFePO4
Protection Class	: IP20
Dielectric Strength	: 2kVAC/50Hz
Mounting	: Wall Mounted
Dimensions	: 87x157x132
Weight	: 2.250 gr.
AC OK Indicator	: Yes
DC OK Indicator	: Yes
Battery Deep Discharge Protection	: Yes
Short Circuit Protection	: Yes
Overload Protection	: Yes
Charge-Discharge Life	: 10.000

# Before making any connections, be sure to read the documentation.

• Ensure the device is powered off before making any connections.

· Do not touch the terminals while the device is powered on.

• Installation and connections of the device must be carried out by technical personnel, in accordance with the connection diagram.

• Use a dry cloth for cleaning the device. Do not use chemicals that may cause deformation or corrosion.

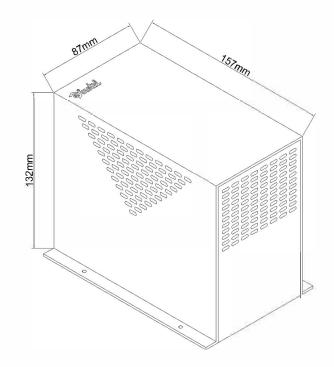
• Unauthorized modifications, opening the case, or removing the warranty label will void the warranty.

• The warranty is valid for 2 years from the invoice date.

• The device is suitable for industrial environments and indoor use.

• The user must comply with the above conditions; otherwise, the manufacturer or distributor is not responsible for any damages that may occur.

#### **Device Dimensions**



## Commissioning

1- Installation:

Secure the LiR24 to the panel using 4 screws through the brackets located on the right and left sides.

2- Make cable connections according to the diagram.

3- Use cables with a minimum conductor diameter of 0.75  $\rm mm^2$  (AWG 18) for AC input and 1.5  $\rm mm^2$  (AWG 16) for DC output.

4- Apply AC (power) voltage and observe that the AC and DC LEDs are lit.

In case of fuse failure, replace the blown glass fuse with a new one, ensuring the AC supply is 2A and the DC output is 10A.

