T 350
12.04.01

BACK - UP BATTERY

ALM 688 Eng.

- **Back-up battery for modems and for devices with alarms**
- **LED for indicating when back-up battery starts to be used**
- **LED for fault in back-up load (with fault reset)**
- **Power supply 230 V~; DIN rail mounting**

CE

1. APPLICATION

ALM 688 back-up battery is used at telemanaged sites subject to frequent power failure is.
It permits the devices connected to send an alarm signal. It has a maximum autonomy of10 minutes and will operate for five days with full charge.
In order for the system to function efficiently, it is essential that the devices connected are programmed to send the alarm in a very short time and with as rapid a call frequency as possible (setting to be carried out by PC).
Devices that can be connected:

– one **MPA 643** or **MPD 612** or **MPF 612** modem
– all C-Bus devices with On-Off alarm; **(max. 1 modem and 1 device)**

2. FUNCTIONS

The main functions of ALM 688 are:

- In the event of a power failure, permits the devices to send an alarm to the central communication terminal
- Signal locally when the back-up starts to operate by lighting the central (“BATTERY”) LED and simultaneously activating an internal intermittent acoustic signal.
- Signal locally an overload or a short circuit in the devices connected (“LOAD ANOMALY”) LED
- In the event of an anomaly in the ALM 688 power load it switches itself off. To reactivate it, press “RESET” button

3. TECHNICAL DATA

• Electrical

Power supply	230 V ~
Frequency	50...60 Hz
Consumption	3 VA
Protection	IP 40
Maximum autonomy	10 min.
Full load	5 giorni
Radio disturbances	VDE 0875 / 0871
Vibration test	with 2g (DIN 40046)
Construction standard	Italian Electrotech. Committee (CEI)

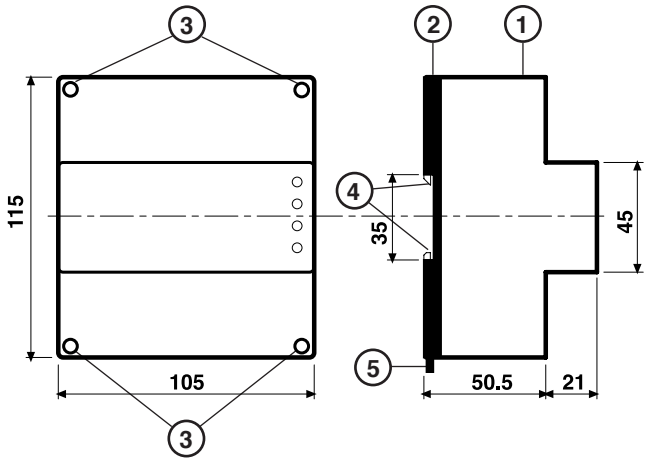
• Mechanical

Enclosure	DIN 6E module
Mounting	on DIN 35 rail
Materials:	
Base	NYLON
Cover	ABS
Ambient temperature:	
Operation	0...40 °C
Storage	– 25...+60 °C
Ambient humidity	Class F DIN 40040
Dimensions	105 x 115 x 71.5
Weight	0.900 kg

4. INSTALLATION

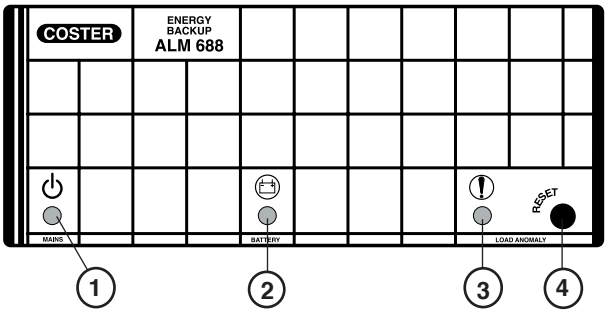
ALM 688 must be installed in a dry location that respects the ambient conditions given under 3.TECHNICAL DATA. If installed in a location classified as “Hazardous” it must be installed in a cabinet for electrical equipment constructed according to the current regulations for the class of danger concerned.
The controller can be mounted on a DIN rail and housed in a standard DIN enclosure.

5. OVERALL DIMENSIONS



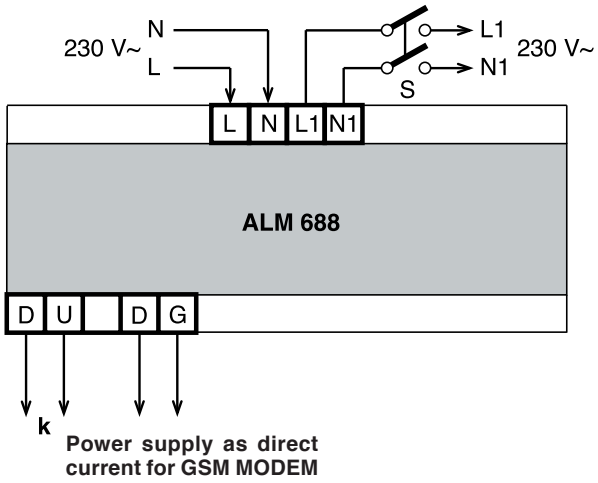
1 – Protective cover for electronic components
2 – Base with transformer, relay and terminal blocks
3 – Screws for securing base and cover
4 – DIN rail securing elements
5 – DIN rail release lever

6. FACIA



1 – Mains LED
2 – LED for insertion battery
3 – LED alarm anomalous load
4 – Reset button for load anomaly

7. WIRING DIAGRAM



Power supply as direct current for GSM MODEM

To the devices to be powered with backup
1 MPA 643 or MPD 612 or MPF 612 modem
1 device with C-Bus and On-Off alarm

L – 230 V~ mains
N – Mains neutral
S – Bi-polar disconnecting switch
L1 – 230 V~ backed up
N1 – Neutral backed up
k – Alarm LED
NB: k = Alarm LED for power failure.
Connect to terminals D – E of the device powered by ALM 688

8. ELECTRICAL CONNECTIONS

Proceed as follows:

- Separate the base and cover after removing the securing screws
- Mount the base on the DIN rail and check that the securing elements (5.4) anchor it securely
- Make the electrical connections according to the diagram and in observance of the safety regulations in force, using the following cables:
  – 1.5 mm^2 for the power supply
  – 1 mm^2 for connection k
- Switch on power (230 V~) and check its presence at terminals L and N
- Switch off power, replace the cover on the base/terminal block and secure it with the four screws supplied (5.3)
- To check that the back-up works correctly, it must remain powered for at least three consecutive days so that it can accumulate part of the charge (complete charge in five days); then switch off the power and the LED for battery in operation should light and the internal acoustic signal should sound. The devices connected should continue to function and at the same time send an alarm signal.

You are advised to insert not more than two cables in a single terminal of the back-up and if necessary to use an external junction box..

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