Emergency power supply REG-K

Operating instruction

Art. no. MTN683901

Necessary accessories
- Lead gel battery (art. no. MTN668991)

Accessories
- Power supply unit REG-K/160 mA with emergency input (art. no. MTN648316)
- Power supply unit REG-K/220 mA with emergency input (art. no. MTN683832)
- Power supply unit REG-K/640 mA with emergency input (art. no. MTN683909)

For your safety

CAUTION Risk of fatal injury from electrical current. All work carried out on the device may only be performed by skilled electricians. The country-specific regulations and the valid KNX guidelines must be followed!

CAUTION Adjacent devices can be damaged. Only devices with least basic insulation may be installed next to the switch actuator.

CAUTION Safety clearance must be guaranteed as per DIN EN 60664-1. A distance of at least 4 mm must be maintained between individual cores of the 230 V cable and the bus line.

Getting to know the emergency power supply

The emergency power supply REG-K (referred to below as the emergency power supply) secures the power supply unit against mains failure. This ensures that the bus voltage remains constantly available, as it is, when necessary, supplied by a lead gel battery which is connected to the emergency power supply.

A yellow display on the power supply unit indicates when the bus voltage is being supplied by the emergency power supply. The display statuses (Battery, Error, Power) are also available at outputs A1, A2, A3 and can, for example, be recorded by the binary input REG-K/4x24 (art. no. MTN644892).

Connections, displays and operating elements

1. green LED: Mains voltage display
2. red LED: Error warning
3. yellow LED: Battery operating display
4. Operating state logging outputs
5. Battery connection (with cover)

Installing the emergency power supply

1. Insert the emergency power supply into the DIN rail with the clamping spring facing down and suspend it in the rail.
2. Connect the mains voltage.
3. Connect the power supply.
4. If necessary: Connect up a binary input.

Connections, displays and operating elements

- Connect up a suitable battery on the yellow/white battery terminal. Put on the battery terminal cover.
- Due to the possibility of a voltage drop, two cores each of 0.8 mm diameter should be used in parallel (line cross-section > 0.5 mm²) in each cable to the battery.
- Connect up a suitable battery on the yellow/white battery terminal. Put on the battery terminal cover.
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To provide extra security against any failure of the bus voltage, the emergency power supply can be connected up to another electrical circuit (different phase) than the power supply.

Accessories
- Power supply unit REG-K/640 mA with emergency input (art. no. MTN683832)
- Power supply unit REG-K/320 mA with emergency input (art. no. MTN683890)
- Lead gel battery (art. no. MTN668991)
No bus voltage in the connected line.

The mains voltage for both the power supply unit and the emergency power supply has failed, and the battery is discharged. The connected battery must be charged to a high enough level to ensure reliable emergency power supply. Refer to the technical data for the battery to check how long the battery should be charged and how long it can provide power.

### Key to emergency power supply displays

<table>
<thead>
<tr>
<th>Mains voltage display (Power, green)</th>
<th>Error warning (Error, red)</th>
<th>Battery operating display (Battery, yellow)</th>
</tr>
</thead>
<tbody>
<tr>
<td>on off off</td>
<td></td>
<td>Mains voltage available, battery charging</td>
</tr>
<tr>
<td>on on off</td>
<td></td>
<td>Mains voltage available, battery voltage &lt; 11 V</td>
</tr>
<tr>
<td>on off on</td>
<td></td>
<td>Mains voltage available, power supply provided by battery</td>
</tr>
<tr>
<td>on on on</td>
<td></td>
<td>Mains voltage available, power supply provided by the battery and output current too high or battery voltage &lt; 11 V</td>
</tr>
<tr>
<td>off off on</td>
<td></td>
<td>No mains voltage, power supply provided by the battery (battery not charging)</td>
</tr>
<tr>
<td>off on on</td>
<td></td>
<td>No mains voltage, power supply provided by the battery and output current too high or battery voltage &lt; 11 V</td>
</tr>
<tr>
<td>off off off</td>
<td></td>
<td>No mains voltage, no battery voltage</td>
</tr>
</tbody>
</table>

### Technical Data

**Mains input**
- Input voltage: AC 110 - 230 V +/- 10 %, 50 - 60 Hz
- Power consumption: 25 W

**Output to power supply unit (-, +, C)**
- Nominal current: without battery approx. 300 mA, with battery approx. 640 mA
- Short circuit current: < 1.5 A
- Stored energy time: approx. 30 min (with 640 mA and fully charged 7.2 Ah battery)

**Input voltage:**
- Power consumption: < 50 W
- Charging time: max. 1 A

**Ambient temperature:**
- Operation: -5 °C to +45 °C
- Storage: -25 °C to +55 °C
- Transport: -25 °C to +70 °C
- Environment: The device is designed for use at an installation height of up to 2000 m above sea level (MSL)
- Max. ambient humidity: 93 % relative humidity, no dew formation

**Connections:**
- Inputs, outputs: Screw terminals for 0.5 - 2.5 mm² single-core: 1.5 mm² to 2.5 mm² finely stranded with core end sleeve: 1.5 mm² to 2.5 mm² Battery connection: Battery terminal (yellow/white). The battery should be connected with four cores of each 0.8 mm diameter (pairs of two parallel), to provide a line cross-section of at least 0.5 mm² per cable

**Dimensions:**
- 90 x 72 x 65 mm (HxWxD)
- Device width: 4 pitches
- EC guidelines: 89/336/EEC

### Schneider Electric Industries SAS

If you have technical questions, please contact the Customer Care Center in your country.

www.schneider-electric.com

This product must be installed, connected and used in compliance with prevailing standards and/or installation regulations. As standards, specifications and designs develop from time to time, always ask for confirmation of the information given in this publication.