

Power Supply  
N 123 LCP 3000EZ  
Data Sheet



# product GUIDE



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## Power Supply Unit N 123



### Product and Applications Description

The power supply unit N 123 provides and monitors the necessary Class 2 power for the *instabus* EIB system. At least one power supply unit is required per bus line. Power supply units are mounted on a DIN-rail equipped with a data rail in a control panel. The power supply unit N 123 must be installed in combination with choke N 120. Choke and power supply unit have to be mounted on the same DIN-rail and are connected via the data rail.

No more than two power supply units may be used with a single bus line. A second unit (power supply unit and choke) is not required unless the working voltage at a bus device falls short of 21V. The cable length between the two power supply units must be at least 200 m (600'). When more than 30 bus devices are installed in short bus cable distance (approx. 10 m) (30') (e.g., in control panel boards), the power supply unit N 123 should be situated near these bus devices. The wire length between power supply unit N 123, choke N 120, and any of its bus devices must not exceed 350 m. These switches also show the actual switching state (when switching manually as well as when switching via the bus). Each of the outputs (relays) can be assigned various tasks depending on the application program used, i.e. the load switch N 512

## 5WG1 123-1CB01

consists of the device (hardware) and its application programs (software). (1000'). The power supply unit N 123 has a voltage and current control and is therefore short circuit proof. Short power breakdowns are bridged with a buffer interval of at least 100 ms.

By connecting two power supply units N 123 in parallel to the *instabus* via the same choke N 120, the tolerable current can be increased from 320 mA to 500 mA (while maintaining the buffer interval). For uninterrupted power, it is suggested to use a separately safeguarded circuit for the power supply unit N 123's power supply line.

### Application Programs

No application program required.

## Technical Specifications

### INPUT VOLTAGE

- Rated voltage 120V AC
- Frequency 50... 60 Hz
- Permissible range: 100... 132V AC

### RATED POWER CONSUMPTION

Approx. 24 VA

### OUTPUT VOLTAGE

- Rated voltage 29V DC safety extra low voltage (SELV)
- Permissible range: 28... 30V DC

### OUTPUT CURRENT

- Rated current 320 mA
- Short-circuit current: limited to 1,5 A

### BACKUP INTERVAL

On input voltage failure:  
min. 200 ms at rated current

### CONTROL ELEMENTS

Slide switch for resetting the bus devices connected to the line (operation > 10 s)

### DISPLAY ELEMENTS

- 1 red LED for indicating a shorted-out bus line or device over-load
- 1 green LED for indicating faultless operation
- 1 yellow LED for indicating external overvoltage on the busline power supply in reset mode

### CONNECTIONS

- Mains connection, screwless plug-in terminals: AWG #14 solid Cu
- Bus line, pressure contacts on data rail

### PHYSICAL SPECIFICATIONS

- Polymer casing
- DIN-rail mounted device, width: 5,5 SU (1SU = 18mm)
- Weight: approx. 460 g (28oz)
- Installation: rapid mounting on DIN EN 50022-35 x 7,5 rail

### ELECTROMAGNETIC COMPATIBILITY

Complies with Part 15 of the FCC rules pursuant to the limits for a Class A digital device

### ENVIRONMENTAL SPECIFICATIONS

- Ambient temperature operating: 23... 113°F (-5... +45°C)
- Maximum ambient temperature range: -13... 158°F (-25... +70°C)
- Relative humidity (non-condensing): 5% to 93%

### LISTINGS AND CERTIFICATIONS

UL listed (E173 174 )

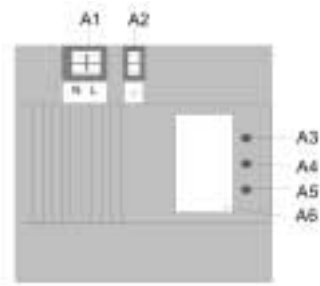
UL 916, Open Energy Management Equipment

CSA certified (pending)

CE marked  
complies with EMC regulations (residential and non-residential buildings) and low voltage regulations

EIB certified

## Location and Function of the Display and Control Elements



- A1** Screwless plug-in terminals for connecting the mains (mains terminals)
- A2** Ground terminal
- A3** Red LED for indicating a shorted-out bus line or a device overload
- A4** Green LED for indicating normal operation of the power supply unit N 123
- A5** Yellow LED for indicating overvoltage
- A6** Type plate

### Installation instructions

The device may be used for permanent interior installations in dry locations within distribution boards.

## Mounting

### General description

The DIN-rail device can be installed in the *instabus* EIB lighting control panel, to surface or flush mounted, and snapped onto the DIN-rail (with glued-in data rail) EN 500022-35 x 7,5 available that has a data rail plugged to it.

The connection to the bus line is established by clicking the device onto the DIN-rail (with glued-in data rail). Take care that the type plates of all devices on a DIN-rail can be read in the same direction, guaranteeing the devices are polarized correctly.

### Mounting the Power Supply unit N 123 to a DIN-rail

- Slide the DIN-rail device (B1) onto the DIN-rail (B2).
- Swivel back the DIN-rail device until the slide clicks into place audibly.

### Dismounting DIN-rail devices

- Remove all connected wires
- Press down the slide (C3) with a screwdriver
- Swivel the DIN-rail device (C1) from the DIN-rail (C2).

## Wiring

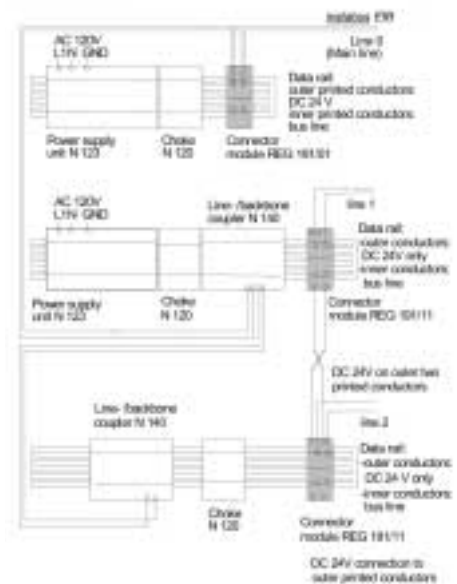
### Connecting load circuits

- The load circuits are connected via screwless plug-in terminals (D1).
- Remove approx. 3/8" (9 mm) of insulation from the wire (D1.1) and plug it into the terminal (D1).

### Disconnect load circuits

- Press the terminal lock (E1.2) with a screwdriver
- Remove the wire3/ (E1.1) from the terminal (E1).

### Typical circuit



**Power Supply Unit  
N 123**

**5WG1 123-1CB01**

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