



73 - 1 - 5975
23459

ABB i-bus[®] EIB
Universal dimmer
6155 EB - 101 - 500
for Installation

Operating instructions
only for authorized, skilled electricians with
EIB training

Important instructions

Attention

It is absolutely essential that the EIB bus is installed by an authorized electrician. Laying and connection of bus line and applications devices must be effected in conformity with valid regulations according to DIN - VDE and the EIB manual of the ZVEI/ZVEH.

The upstream fuse must be switched off before work is carried out on the lighting system.

Connect the touch contact input to the same phase as the device's power supply.

A mixed operation of electronic and conventional transformers is not permitted. Running the device with an idle conventional transformer is not permitted, too.

From an environmental temperature of 35 °C onwards, a reduction of the connected load must be taken into account (cf. connected load derating, Fig. 1). Otherwise, there will be a fire hazard.

Controlled outputs must not be switched in parallel.

Important instructions

Notes

The dimmer 6155 EB - 101 - 500 has electronic short-circuit and overload protection. This eliminates the need for the fuse which is otherwise required in dimmers. A new type of electronic interference suppression replaces the previously standard interference suppression choke. This makes this dimmer a „low-noise dimmer“.

The set brightness of the lighting system is reduced when the electronic overload protection is activated (overload or overtemperature caused by incorrect installation). The original brightness is reset once the overload has been remedied. If this happens, the loading of the dimmer should be checked and, if necessary, reduced.

In case of a transient short-circuit (< 4 seconds), the device will switch off and recover itself automatically. If a permanent short-circuit occurs, the device will switch off completely. After the short-circuit has been removed, the device will be ready for operation again.

The dimmer checks the characteristics of the connected (operable) load.

Important instructions

After the mains voltage has been switched on, the integrated microprocessor evaluates the load and decides, of the phase shift control or the phase sectional control mode has to be selected. A short flickering of the lighting facility may occur.

Attention

For the control of conventional transformers, a primary protection of each transformer has to be provided according to manufacturer specifications.

Only safety transformers in compliance with DIN VDE 0551 may be used. To ensure a precise load recognition, the dimmer must be operated neither with a short-circuit nor with secondary, idle-running conventional transformers, when the mains voltage is switched on.

Important instructions

Notes

If the physical address has not yet been assigned, the programming key (Fig. 3, pos.5) should still be accessible. If necessary, please install the lamp cover later on.

The manufacturer database of ABB is continuously updated. It stores the latest types of applications and their related descriptions. If you need a copy of the database, please contact your national distributor.

Technical data

This dimmer is suited for incandescent lamps, 230 V halogen bulbs, BJE electronic transformers and conventional transformers for NV halogen bulbs.

EIB connection

Nominal voltage: 24 V
Current consumption: < 10 mA

Switching connection

Nominal voltage: 230 V ~, 50 Hz
Nominal power: 40 - 400 VA
Lamp capacity:

- for incandescent lamps /

230 V halogen bulbs  40 - 400 W

- for NV halogen lamps operated via

• BJE electronic transformers  40 - 400 W

• conventional transformers  ~100 - 320 W

Overload protection: electronic

Short-circuit protection: electronic

Making current: limited by soft start

Radio interference: according to VDE 0875 /
EN 550114

Technical data

Touch contact input: 230 V ~, 50 Hz

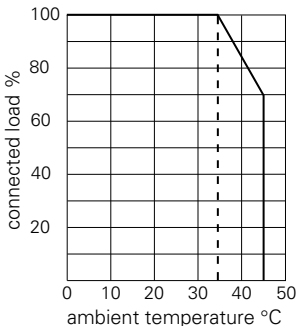
Line length of the touch

contact input: max. 100 m (unlighted)

Protection type: IP 20

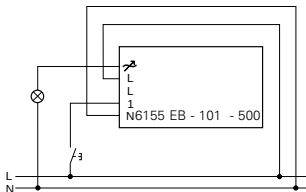
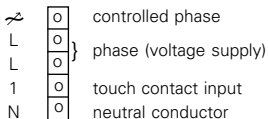
Operating temperature: -5 bis +45 °C

Fig. 1
Connected
load derating



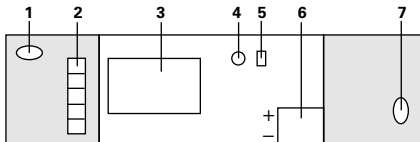
Installation

Fig. 2 / Connections



Installation

Fig. 3 / Device



1 Tapped hole

2 Terminal strip

3 Name plate

4 Programming LED

5 Programming key

6 EIB bus connections

7 Tapped hole

Installation

Please, make arrangements for sufficient ventilation of the device at its mounting position to ensure the maximum dimmer performance.

For the installation of several devices (e. g. on the ceiling), a minimum spacing of 20 cm between the individual units has to be observed.

Attention

Switch off supply voltage !

Remove both outer caps from the device. The device is fixed by means of screws put through the long holes (cf. Fig. 3, positions 1; 7).

The connection of supply voltage and control line is effected at the 5-pin terminal block (pos. 2). Please observe the connection information given in the "technical data" section and "Fig. 2". When the bus voltage is missing, and a 230 V voltage supplied, the actuator 6155 EB - 100 - 500 will automatically switch on (working illumination).

The connection to the EIB bus is made by means of a 2-pin bus terminal which is plugged into the entrance (Fig. 3, pos. 6). Please make sure that the polarity of terminals is correct (red = +, grey = -).

Adapt bus coupling process

Assign physical address

- Connect a PC equipped with the EIBA tool software (ETS) to the EIB bus line via an EIB-RS 232 interface.
- Press the programming key (pos. 5) at the actuator: the red programming LED (pos. 4) will become illuminated.
- After the physical address has been programmed, the red LED will go out.
- Write the number of the physical address on the device using a smudge-proof pencil (pos. 3).

Assign group address(es)

- Group addresses are assigned via a PC in connection with the ETS software.

Select application

Open the device window and choose the desired application version. At present, there is one version available.