

Universal dimmer switch for mains disconnection switching EUD12F

Only skilled electricians may install this electrical equipment otherwise there is the risk of fire or electric shock!

Temperature at mounting location: -20°C up to +50°C.
Storage temperature: -25°C up to +70°C.
Relative humidity: annual average value <75%.

Universal dimmer switch. Power MOSFET 300 W. Automatic lamp detection. Standby loss 0.1 watt only. With adjustable minimum brightness and dimming speed. With switching operation for children's rooms and snooze function. Modular device for DIN EN 60715 TH35 rail mounting.
1 module = 18 mm wide, 58 mm deep.
Universal dimmer switch for lamps up to 300 watt, dependent on the ventilation conditions. Dimmable energy saving lamps and dimmable 230V LED lamps are additionally dependent on the lamps electronics.

Zero passage switching with soft start and soft OFF to protect lamps.

Supply voltage and switching voltage 230V.

Short-time control commands switch on/off, permanent control varies the brightness to the maximum level.

A interruption of control changes the direction of dimming. The setting of the brightness level is stored after switching off.

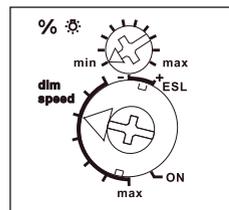
In case of a power failure the switching position and the brightness level are stored. If applicable the dimmer will be switched on at the stored brightness level after the supply voltage is recovered.

Automatic electronic overload protection and over-temperature switch-off.

With integrated switching-off relay for the mains disconnection of switched

circuits. The control push-button(s) of the room are connected via low voltage control wires to the terminals T1 and T2 of the EUD12F (field-free internal DC voltage). The permanent power supply must be connected directly to a phase conductor **ahead** of the mains disconnection relay FR12-230V. Due to this, the complete function remains but the leads to the lamps is disconnected by means of the switching-off relay. A glow lamp current is not permitted.

Function rotary switches



The minimum brightness level (completely dimmed down) can be adjusted with **the upper rotary switch** %⚙️, e.g. for dimmable energy saving lamps.

Automatic mode allows dimming of all lamp types.

In automatic mode the dimming speed can be set in seven steps **with the lower dim-speed rotary switch**.

+ESL is a comfort setting for energy saving lamps which by design have to be switched on with an increased voltage, so they will also switch on again safely in cold condition when dimmed down.

-ESL is a comfort setting for energy saving lamps which by design cannot be switched on again when dimmed down. Therefore memory is switched off in this position.

In positions +ESL and -ESL no inductive (wound) transformers should be used. In addition the maximum number of dimmable energy saving lamps may be lower by design than in automatic mode.

With switching operation for children's rooms: If the light is switched on by holding down the push-button, it starts at the lowest brightness level after approx. 1 second and it is dimmed up slowly without modifying the last stored brightness level.

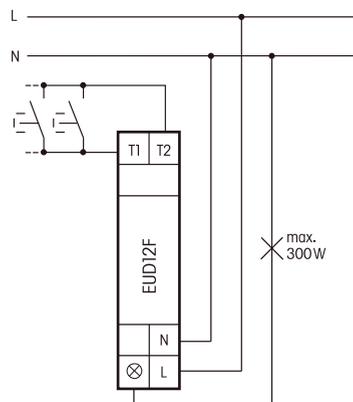
Snooze function: With a double impulse the lighting is dimmed down from the current dimming position to the minimum brightness level and switched off. The current dimming position as well as the adjustable minimum brightness level determine the dimming time (max. = 60 minutes) which can be reduced as required. It can be switched off at any time by short-time control commands during the lighting is dimmed down. Holding down the push-button during the dimming down process dims up and stops the snooze function.

Mixing of L loads (inductive loads, e.g. wound transformers) and C loads (capacitive loads, e.g. electronic transformers) is not permitted.

R loads (ohmic loads, e.g. 230V incandescent-lamps and halogen lamps) may be added anytime.

The universal dimmer switch **EUD12D** in conjunction with the capacity enhancer **LUD12** is suitable for **mixing of L-loads and C-loads**.

Typical connection



Technical data

Incandescent and halogen lamps ¹⁾ 230V (R)	up to 300W ⁶⁾
Inductive transformers (L)	up to 300W ²⁾³⁾⁶⁾
Electronic transformers (C)	up to 300W ²⁾³⁾⁶⁾
Dimmable energy saving lamps ESL	up to 300W ⁵⁾⁶⁾
Dimmable LEDs	up to 300W ⁵⁾⁶⁾

Max./min. temperature +50°C/-20°C⁴⁾ at mounting location

Standby loss (activ power) 0.1 W

- For lamps with a maximum of 150W.
- Per dimmer it is only allowed to use max. 2 inductive (wound) transformers of the same type, furthermore no-load operation on the secondary part is not permitted. Possibly the dimmer switch will be destroyed! No load-switching-off on the secondary part is allowed. The parallel operation of inductive (wound) and capacitive (electronic) transformers is not allowed!
- When calculating the load 20% loss has to be considered for inductive (wound) transformers and 5% loss in addition to the lamp load.**
- Affects the maximum switching power.
- Usually applies for dimmable energy saving lamps and dimmable 230V LEDs. Due to differences in the lamps electronics, there may be limited dimming range, switch on and off problems dependent on the manufacturer and a restriction on the maximum number of lamps; especially if the connected load is very low (for 5W-LEDs). The comfort settings EC1 and EC2 optimize the dimming range which, however, gives only a maximum power up to 100W. In these comfort settings no inductive (wound) transformers should be dimmed.
- With a load of more than 100W, a ventilation distance of 1/2 module to adjacent devices must be maintained.



The strain relief clamps of the terminals must be closed, that means the screws must be tightened for testing the function of the device. The terminals are open ex factory.

Must be kept for later use!

We recommend the housing for operating instructions GBA12.

Eltako GmbH

D-70736 Fellbach
☎ +49 711 94350000
www.eltako.com