Eltako SWITCHGEAR

Operating instructions for electronic universal current impulse dimmer switches ESD12U-500W-230V, ESD12U-500W-12…230V UC and ESD12.2U-500W-12…230V UC and the capacity enhancer ELD12U-500W.

CE
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Electronic universal current impulse dimmer switches ESD12U-500W-230V and ESD12U-500W-12..230V UC
Modular device for DIN-EN 50 022 rail mounting. Dimmer switches rated for R loads (resistive loads) and C loads (capacative loads) ranging from 40W to 500W and L loads (inductive loads) ranging from 40W to 400W or n x 40-500W (400W), with capacity enhancer ELD12U-500W. Short control commands open/close switches. Permanent actuation adjusts brightness between the max. and min. values. The brightness setting remains stored when the switches are disconnected. Soft start and automatic load recognition with additional manual selection. The terminals are protected against wrong polarity and the devices switch silently. 1 module = 18 mm wide and 55 mm deep. Radio interference suppression is in compliance with DIN-VDE0875. Radio interference suppression class N. Automatic electronic overload proofing and overtemperature cut-out. The universal voltage 12..230V UC of type ESD12U-500W-12…230V UC is electrically isolated from the lamp circuit.

Electronic universal current impulse dimmer switch ESD12.2U-500W-12..230V UC
Description like above-mentioned type ESD12U-500W-12..230V UC, but additionally with universal voltage control inputs "central on" and "central off" electrically isolated from the load circuit and the local control input.

Capacity enhancer ELD12U-500W
ELD12U-500W capacity enhancers can be connected to the ESD12U universal current impulse dimmer switches, thereby increasing the switching capacity by between 40W and 500W (400W) per capacity enhancer.
The load type of the ELD12U-500W capacity enhancer can deviate from the load type of the universal current impulse dimmer switch and the other capacity enhancers. Automatic load detection, with additional manual selection for compounding of L and C loads.

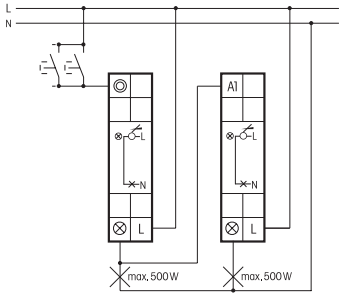
Installation notes
After initial installation and disconnection from the mains, the universal current impulse dimmer switch adapts automatically to the load applied, provided that the rotary switch on the front panel is set to AUTO mode. The brightness of the universal current impulse dimmer switch is then set to 80%.
In the case of resistive loads (230V incandescent lamps, 230V halogen lamps), the teach-in procedure is indicated by a single, short flash of the lamp. The teach-in procedure takes between 1 and 10 seconds depending on the mains conditions. It is not possible to operate the switch during this period.
If a universal transformer (dimmable using both L and C dimmers) is combined with an L transformer or a C transformer, then universal current impulse dimmer switch ESD12U must be set manually to the compounded load (L or C) using the rotary switch on the front panel.
To activate adjustments made with the rotary switch, a teach-in procedure must be run after disconnecting the switch from the mains.
Short-circuit protection: the switch remains "off" until the universal current impulse dimmer switch is reclosed.
Overtemperature protection: if the ambient temperature is too high, the switch remains "off" until the universal current impulse dimmer switch is reclosed after cool-down.

Max./min. temperature at installed location: +50°C/-20°C

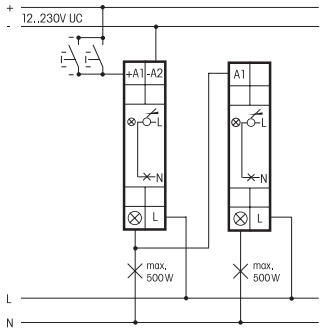
Power reduction is not necessary, provided that the min. ventilation clearance of ½ a module (9 mm) is maintained on both sides of the device (use spaces DS12). Otherwise, connected load should be reduced to 300W.

Apply at least 50% of nominal load to wound transformers with lamps.

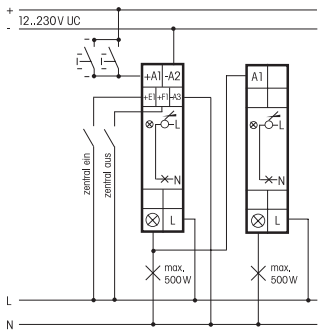
Connection examples
ESD12U-500W-230V with ELD12U-500W



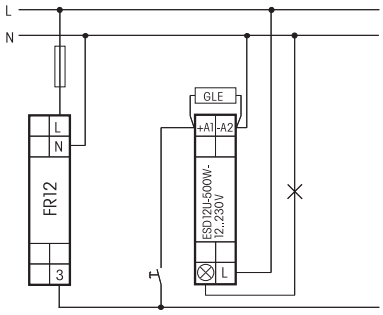
ESD12U-500W-12..230V UC with ELD12U-500W



ESD12.2U-500W-12..230V UC with ELD12U-500W



Combination with mains disconnection relay
The universal current impulse dimmer switches ESD12U-500W-12..230V UC and ESD12.2U-500W-12..230V UC are identified by mains disconnection relay FR12, and the brightness setting also remains stored after the switches are disconnected, provided that the switches are configured as shown in the circuit diagram below. Type ESD12U-500W-230V cannot be used in combination with a mains disconnection relay.



Important!

These electrical devices may only be installed and mounted by a qualified electrician