

# GreenBoX

## POWER REDUCER

GreenBoX reducer is a modern device, reducing energy consumption in lighting circuits.

The transformer method of lowering voltage and therefore power used in the reducer allows to save energy. Thanks to application of modern solutions and small dimensions GreenBoX can be connected to any lighting system: both the newly designed and already existing. GreenBoX series reducers were primarily used in low-power lighting circuits, and as they do not introduce harmonic distortion, they are readily used.

GreenBoX is manufactures in single-phase and three-phase versions for currents 15 A/25 A/35 A/45 A per phase. We offer it as an external IP44 cabinet (attached to lighting cabinet) or interior one (for mounting in lighting cabinets or switchboards).

The outdoor IP44 version is manufactured in aluminium or thermosetting housing.

The device is used in public and commercial buildings requiring long-term illumination: in the streets, stadiums, railway stations or in parks.



Legend:

$U_z$  - nominal voltage of 230 V

$U_s$  - stabilization voltage 200-220 V

$U_r$  - power reduction voltage 180 V-200 V

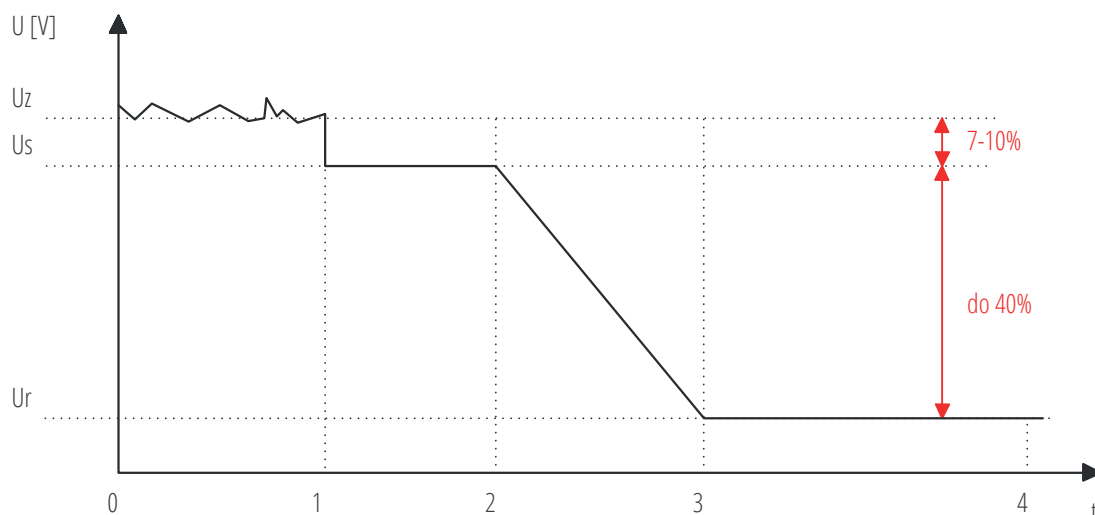
Stage:

0-1 - a series of heating sources, about 15 minutes;

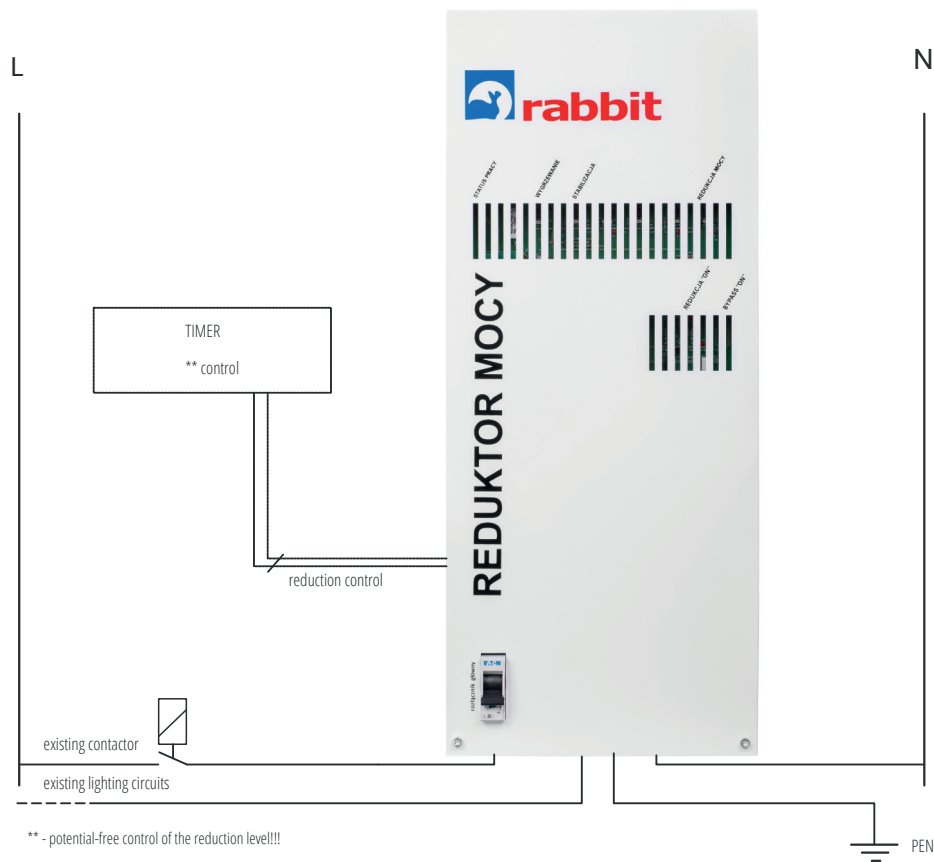
1-2 - nominal work - stabilization voltage;

2-3 - process of power reduction (several-stage voltage reduction to  $U_r$ )

3-4 - power reduction process (user adjustable threshold)



## WIRING DIAGRAM



## FEATURES OF THE DEVICE

- voltage optimization of street lighting network
- available 1- and 3-phase versions
- adjustable level of power reduction to 40% (multi-stage voltage reduction)
- possibility to activate or deactivate reduction at any time
- lack of harmonic distortion
- possibility to use in cable networks, overhead lines, for external and internal lighting
- automatic bypass of the device in case of power failure or damage
- control by any CPA series astronomical programmer
- environmentally friendly device - by reducing power consumption it reduces CO<sub>2</sub> emissions
- innovation, reliability, easy operation
- high economic efficiency - reducing costs up to 40%

## TECHNICAL SPECIFICATIONS

- supply voltage: 250 V - 230 V
- reception voltage: 230 V - 180 V
- size (width / height / depth):  
15A, 25A: 220 x 530 x 210 mm  
35A, 45 A: 220 x 590 x 210 mm
- capacity range -  
15A up to 3.3 kVA for a 1-phase and up to 9.9 kVA for 3-phase  
25A up to 5.5 kVA for a 1-phase and up to 16.5 kVA for 3-phase  
35A up to 8 kVA for a 1-phase and up to 24 kVA for 3-phase  
45A up to 10 kVA for a 1-phase and up to 30 kVA for 3-phase
- outputs current capacity: 15 – 45 A (depending on the version)
- operating temperature: from -40°C to +40°C
- protection degree: IP20
- installation in the lighting cabinet or on the board
- weight up to 23.5 kg (depending on the version)