

# Energy consumption reducer for lighting systems



Consumption reduction up to 40% at any type of lighting system, mainly for discharge sodium vapor lamps or high pressure mercury vapor lamps.

Absorbs input voltage fluctuations as for example night overvoltages, being an additional energy saving.

Increases in the useful life and performance of the lamps, reducing maintenance costs.

Output voltage display. Astronomic switch in order to control Power On-Saving-Power OFF of the equipment.

Robust, high reliability, easy to install and operate.

Mounting into metal enclosure IP-23 protection degree, resin polyester-epoxy powder coated with excellent physical-mechanical and anti-corrosive properties.

## Technical characteristics

Power rating	5 ÷ 60 kVA		
Input voltage	II	230 V	(Series RCM)
Output voltage	III	3 x 400 V + N	(Series RCT)
Output voltage (phase-neutral)	184 V (Sodium) 207 V (Mercury) 230 V (ON)		
Frequency	50/60 Hz		
Ambient temperature	30 °C		
Protection degree	IP-23		
Safety class	Class I		
Phase protection	Magnetothermic switch		
Input voltage margin	± 10% (Saving)		
LED indicator	Blue (ON) Green (Saving)		
Standard	IEC/UNE-EN 61439-1		



### (RCM Series)

Power rating ≤ 25 kVA:  
IEC/UNE-EN 61558-1

Power rating > 25 kVA:  
IEC/UNE-EN 60076-11

### (RCT Series)

Power rating ≤ 40 kVA:  
IEC/UNE-EN 61558-1

Power rating > 40 kVA:  
IEC/UNE-EN 60076-11

- For general use, select the power according to the load and power factor:

$$\text{II series RCM : kW} = V \times I / 1000$$

$$\text{III series RCT : kW} = \sqrt{3} \times V \times I / 1000$$

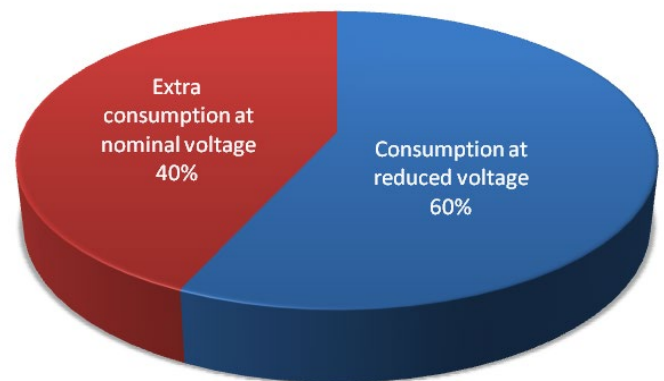
$$\text{kVA} = \text{kW} / \text{Cos } \varphi$$

# SERIES REDCON

REDCON are especially designed to reduce the energy consumption at all lighting facilities:

- Roads, motorways, highways
- Public lighting
- Industrial areas
- Shopping centers
- Companies
- Railway, ports, airports, tunnels...

REDCON improves the energy efficiency of the facilities contributing to the sustainability of the environment reducing the CO2 emissions for the reduction in the demand of energy.



Only 60% power energy is required when the equipment is working at reduced voltage.

Example of REDCON equipment, 60 kVA, working on 2500 hours/year at reduced voltage, see table below the energy saving for each lamp type:

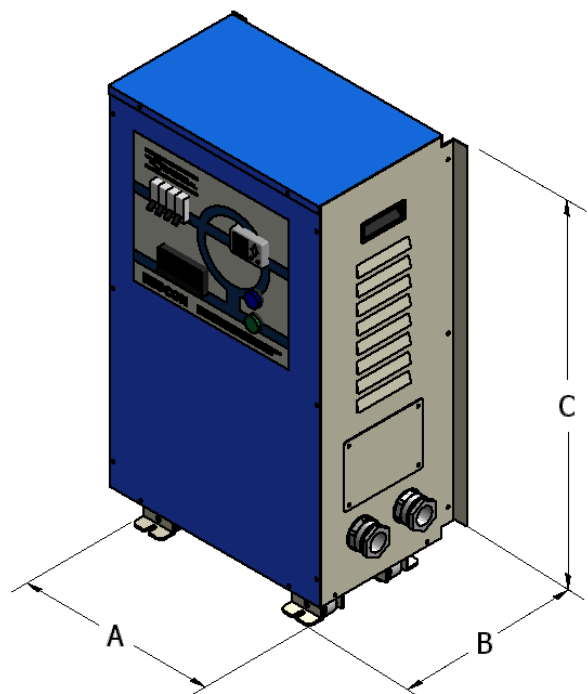
Lamp type	Consumption Without REDCON kW	Consumption With REDCON kW	Consumption reduction kW	Annual reduction kWh	Annual saving (0,12 €/kWh)
Sodium	56	33	23 (40%)	57.500	6.900 €
Mercury	56	40	16 (30%)	40.000	4.800 €

## Series RCM Single phase

Rating kVA	Reference	Dimensions mm			Weight kg
		A	B	C	
5	RCM05	435	300	690	26
10	RCM10	515	340	830	52
15	RCM15	515	340	830	61
20	RCM20	515	340	830	65

## Series RCT Three phase

Rating kVA	Reference	Dimensions mm			Weight kg
		A	B	C	
15	RCT15	435	300	690	50
30	RCT30	515	340	830	88
45	RCT45	585	380	1000	121
60	RCT60	585	380	1000	155



According to the lamp type, add at the end of the reference:

**-S** for sodium vapor lamps.

**-H** for high pressure mercury vapor lamps.

\* Other lamps type or protection degree IP00 or IP54, on request.

\* Other features, power, voltage, etc., on request.

\* Torytrans reserves the right to modify the information in any time and without prior notice.