

Ecolite saves energy in lighting circuits

The Ecolite is a compact and economical unit, designed to save 25% of power consumption, in fluorescent lighting systems. In addition, the Ecolite extends the lighting elements' lifetime, improves line power factor and line conduction losses, without any change to the lighting infrastructure.



Single phase saver

Features and benefits

Models

The Ecolite is available in three different models rated at 6 A, 10 A and 16 A.

Compact

All the Ecolite models are only 11 x 11 x 17 cm in size making it very easy to install it in the tightest of spaces. Units from other manufacturers with a similar current rating are nearly 3 times larger.

Lightweight

The Ecolite models weigh under 5 kg making it one of the lightest voltage reduction unit on the market.

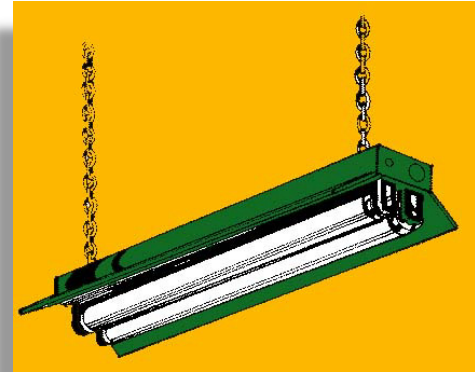
Built in bypass switch

This allows the Ecolite to be removed from the circuit easily, for maintenance or for measurements.

Easy installation

There are only three wires to connect up to install the Ecolite.

Return on Investment



The Ecolite achieves a typical return on investment of between 18-30 months. The Ecolite solution can deliver direct savings of up to 25% and reduce total cost of ownership by up to 40% from indirect savings due to lower maintenance costs.

How does it work?

All lighting is designed to work at 230 V. In the UK the supply voltage is usually at 240 V and sometimes can be as high as 250 V. The additional power is wasted as heat in the lighting. The Ecolite drops the voltage to the lighting by 20 to 30 V to save the wasted electricity without a noticeable drop in light output.

By supplying this controlled voltage, the Ecolite improves energy efficiency, reduces electricity consumption and minimises electrical wear and tear. The Ecolite is a compact unit that implements this efficiently and does not produce any problematic high frequency interference.

Voltage reduction

Input	Output	Reduction
220 V	200 V	20 V
230 V	205 V	25 V
240 V	214 V	26 V
250 V	223 V	27 V
260 V	230 V	30 V

Ecolite models

The Ecolite is available as a 6, 10 or 16 Amp model. When selecting the right model always allow a 10% margin on the current.

Model	Max. current
Ecolite 6 A	5.4 A
Ecolite 10 A	9 A
Ecolite 16 A	14.4 A

Before selecting the correct model, measure the current in the lighting circuit or circuits making sure that all the lights are switched on and the bulbs are all working. Use this current to select the right model by referring to the table above.

Estimate based on lamp count

One can make a quick estimate of the right Ecolite model required by carrying out a lamp count.

- Count the total number and type of lamps in the circuit. E.g. 45 x 4 ft fluorescent lamps.
- Work out the total power by multiplying the number of lamps by 36 W, which gives 1620 W.
- Multiply by 1.2 to allow for ballast losses which gives 1944 W.
- Divide by 240 V which gives a current of 8.1 A.
- This tells us that the Ecolite 10 A is suitable for this lighting circuit.

Cost savings with the Ecolite

Here is an example of the savings achieved by using the 10 A Ecolite model in a lighting circuit with 40 x 4 ft fluorescent tubes that are on 10 hours a day, 363 days a year (except at Christmas and Easter Sunday)

- Total energy used over the year is given by $1.94 \text{ kW} \times 10 \text{ hours} \times 363 \text{ days} = 7042 \text{ kWh}$.
- Total cost of this at 10 p per kWh is £704 per annum.
- Savings using the Ecolite is £176 per annum based on a 25% saving.
- Using an Ecolite 10 A, the payback period of less than 23 months is achieved.

More examples of cost savings with the Ecolite are shown below.

Lamp count	Total power	Ecolite model	Energy / annum	Cost / annum	Savings / annum
30 x 4 ft (36 W) T8 lamps	1.3 kW (5.4 A)	6 A	4719 kWh	£472	£118
30 x 5 ft (58 W) T8 lamps	2.1 kW (8.8 A)	10 A	7623 kWh	£762	£191
25 x 8 ft (100 W) T8 lamps	3 kW (12.5 A)	16 A	10890 kWh	£1089	£272

Log onto www.lean-and-green.co.uk for a free proposal on energy saving based on your lighting.

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