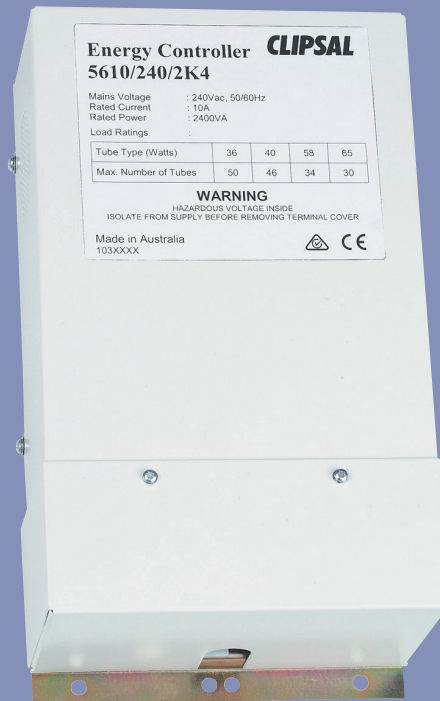# Energy Controller

Features

- Typically saves 25 - 30% off lighting energy cost.

- For use with fluorescent lighting with iron-core ballasts.

- Easy to retrofit. Simple, quick installation.

- No modification of luminaires required.

- No limit to the number of units installed per site.

- Fail-safe operation.

- Current sensing for stable lamp switching.

- Voltage sensing, "Brown-out" minimization.

- Increases the lighting system power factor and reduces reactive power.

Energy Controller **CLIPSAL**
5610/240/2K4

Mains Voltage	: 240Vac, 50/60Hz
Rated Current	: 10A
Rated Power	: 2400VA
Load Ratings	:

Tube Type (Watts)	36	40	58	65
Max. Number of Tubes	50	46	34	30

WARNING
HAZARDOUS VOLTAGE INSIDE
ISOLATE FROM SUPPLY BEFORE REMOVING TERMINAL COVER

Made in Australia
103XXXX

5610 Series

The Clipsal Energy Controller is designed to save energy consumed by fluorescent luminaires. The unit operates in one of two modes, Normal or Economy. In Normal mode, the standard supply voltage (240Vac/230Vac/220Vac) is applied to the load. After a short time to allow lamps to strike and warm up, the Energy Controller enters Economy mode and the voltage applied to the lamps is reduced.

When running in Economy mode, the voltage is decreased by approximately 15% of the supply, and energy consumption by fluorescent lighting is reduced by up to 30%.

The Clipsal Energy Controller has a patented soft switching, zero crossover system with both voltage and current sensing; this combination avoids "brown-outs" in a falling voltage situation. It also senses when other luminaires are switched 'on', returning to Normal mode to allow them to strike and warm up before returning to Economy mode.

Fluorescent luminaires are normally operated within the standard utility supply voltage. The nominal supply voltage is only required to allow the luminaires to strike. Thereafter, the operating voltage can be reduced with only a small reduction in light output.

When a bank of luminaires is turned on, the Energy Controller holds the voltage at nominal for a preset time and then returns to economy mode.
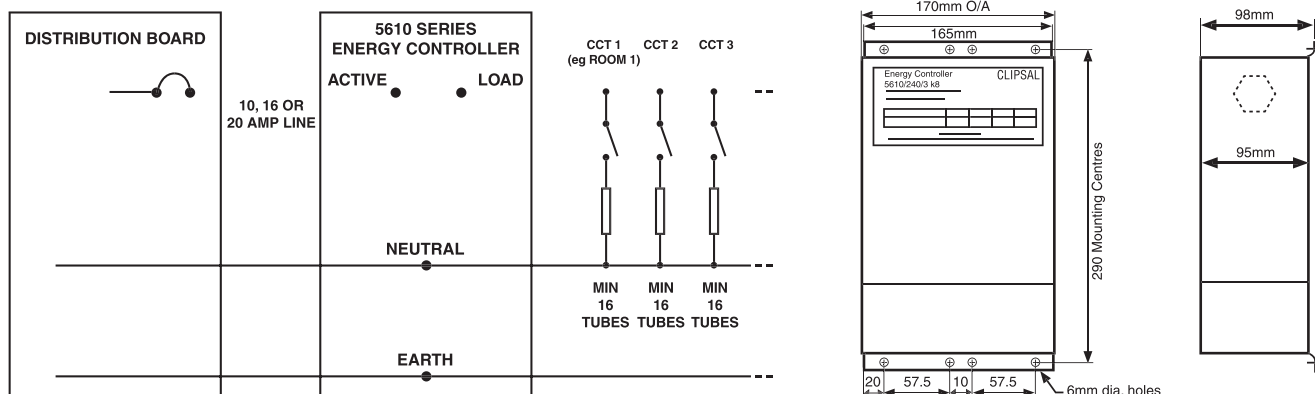
When additional luminaires in a line are turned on, the Energy Controller senses the change in current and switches back to mains voltage, the timer restarts to allow the newly switched lamps to warm-up. This small change in light level during the change in voltage is difficult to detect with the human eye.

The Energy Controller is designed to retrofit into existing installations; no modification is required to existing luminaires. Interruption to lighting and downtime can usually be limited to a matter of minutes.

Clipsal Energy Controllers are compatible with iron core type fluorescent ballasts. Electronic ballasts must not be used. They may be used in conjunction with any type of fluorescent starters used in switch-start fluorescent circuits. For example, electronic or bi-metallic/glow type starters can be used.

clipsal.com/cis

CLIPSAL ®

IBS Intelligent Building Series™

Typical Connection Diagram

Product Specifications

		Supply Voltage Range		
		240V	**230V**	**220V**
Input Voltage	Supply Frequency	50/60Hz	50/60Hz	50/60Hz
Nominal Supply Voltage	204 – 264Vac	195 – 253Vac	187 – 242Vac	
Output Voltage	Normal Mode	240V	230V	220V
	Economy Mode	204V	195V	190V
Load Ratings	Maximum Load			
	5610/XXX/2K4	2400W	2400W	2400W
	5610/XXX/3K8	3800W	3800W	3800W
	5610/XXX/4K8	4800W	4800W	4800W
	Maximum Current			
	5610/XXX/2K4	10A	10. 5A	11A
	5610/XXX/3K8	16A	16. 5A	17. 5A
	5610/XXX/4K8	20A	21A	22A
	Current Sensing / Under Voltage Detection	215V	205V	200V
	Timer Range (Mode Switching Delay)	1 – 5 minutes (Varies depending on load conditions)		
Mechanical Details	Shipping Weight			
	5610/XXX/2K4	5.5kg		
	5610/XXX/3K8	7kg		
	5610/XXX/4K8	7.5kg		
	Dimensions (L x W x D)	305 x 170 x 100mm		
	Operating Temperature	0 – 50°C		
	Operating Humidity	10 – 95% RH		
Specifications typical @ 25ºC ± 5ºC				

Maximum number of fluorescent tubes			
Fluorescent Tube Type	5610/XXX/2K4	5610/XXX/3K8	5610/XXX/4K8
36W	50	80	100
40W	46	74	92
58W	34	54	68
65W	30	48	60
Note: Minimum Load 16 Tubes Per Switched Circuit			

Patented