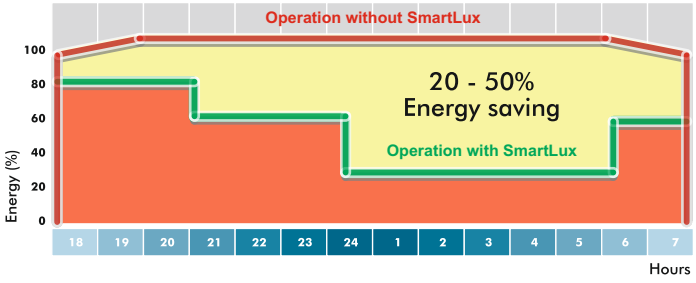
SmartLux

ENERGY MANAGEMENT SYSTEMS

SmartLux is a comprehensive Light Energy Management and Savings system which is compatible with Lighting loads of all kinds. The system is fully programmable via embedded controller or PC based software.

Lighting energy constitutes a substantial part of the overall energy consumption in commercial and industrial centres. Upto 40% energy can be saved, while reducing losses, wastage and over lighting conditions. SmartLux enables corporations to save energy by eliminating waste via facility wide dimming and switching.



Using the software, the facility operator can locally or remotely access SmartLux and manage any of the elements listed below.

- Schedule or manually implement automatic energy reduction levels and on/off switching
- Participate in peak shaving/load shedding/utility energy requirements without disruption of work
- View power usage and energy consumption

Light sources are susceptible to mains fluctuations and spikes. To operate at full life cycle and to maintain lumen output, they need to operate at a voltage that is within 5% of their operating range.

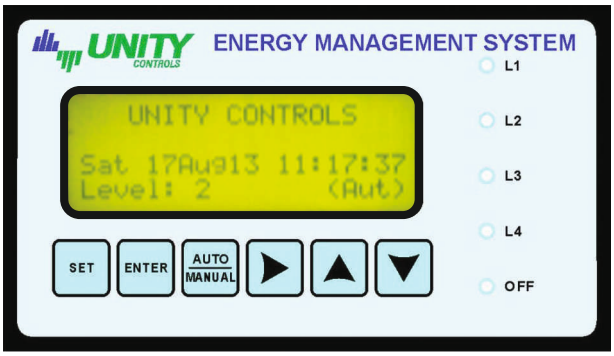
The brain of the system is an intelligent controller, which regulates the luminous flux intensity of lighting sources. The system starts by automatically going through a warm-up cycle for a time period. After this the system switches to the desired schedule based on 4 different programmable output levels. A manual bypass is also provided on the controller for maintenance purposes.

Unlike dimming ballasts or retrofit devices, this system can ve used without any expensive changes in existing wiring or lamp fixtures.

Key Features and Advantages

- Embedded Microcontroller based technology with software interface via RS-232 and ethernet
- Large 20x4 LCD display with backlight, Time/Date and current preset level
- Fully programmable Daily / Monthly / Yearly calendar with Holiday scheduler
- Four different output levels / voltage setting
- Programmable warm-up time of 0 - 30 minutes
- Displays all 3 phase power & energy parameters

QUALITY
EFFICIENCY
RELIABILITY



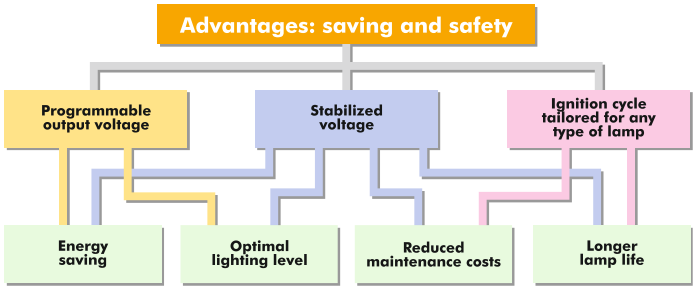
Savings

Energy reduction (KWh): Industries pay per unit charges based on energy consumed in a variety of rate structures like slab based rates, and TOU (time of use) rates. SmartLux saves energy during operating hours of the lighting systems, thereby generating significant energy savings.

Direct cost savings upto 40% can be achieved by using SmartLux. These savings are three pronged:

- Savings due to preset voltage levels (30-40%)
- Savings due to stabilized voltage (5-6%)
- Savings due to increased lamp life, reduced replacement & maintenance costs

Feature Comparison	SmartLux	Wave Chopper	Transformer
Intelligent microprocessor system	✓	✗	✗
No Harmonics generation	✓	✗	✗
Zero waveform distortion	✓	✗	✗
No Lamp flicker	✓	✗	✗
Multi level programming	✓	✗	✗
Under/Over Voltage faults	✓	✗	✗
Remote programming	✓	✗	✗
Bypass for maintenance	✓	✗	✓



Technical Specifications

Ratings	16, 28, 36, 50, 70, 86, 110, 130, 150, 175, 220 KVA
Input Voltage*	360 - 460 V AC / 340 - 480 V AC
Phase	3 Phase, 4 Wire
Frequency	47 – 53 Hz
Output Voltage	230 V RMS Stabilised
Efficiency	> 98%
Regulation	± 1%
Waveform Distortion	Nil
Type of Load	Suitable for 0 to 100%, unbalanced
Metering	3 Ph V, I, F, KVA, KW, KWH, KVAR, min, max, Avg Values
Interface	RS - 232 / RS - 485+
Protections	Overload & Short Circuit
	Bypass Switch
Cooling	Air Cooled
Ambient	0 - 45 °C, RH upto 90%
Enclosure	Sheet metal, epoxy powder coated RAL 7032

**Non standard voltages are also available.*
+Optional

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