

# LEC A

The LEC A is a sophisticated 3-phase energy controller designed to control and stabilize the voltage provided to lighting elements. With the LEC A voltage supplied to the lighting circuits can be reduced up to 35V, in decrements of 2.5V.

## BENEFITS

- 15% - 35% - energy saving
- Full protection against overtemperature and overload
- Built-in display and keypad for easy programming
- Seamless integration with energy management systems (EMS)
- Compact and highly efficient
- No harmonic distortions, THD/EMI free

## FEATURES

### Automatic Bypass

Automatic and complete bypass via an internal contactor in case of overtemperature or overload, without disruption to the line or load.

### Manual Bypass

A built-in manual bypass switch that completely bypasses the LEC and supplies full net voltage to the lighting systems. This is usually required for maintenance.

### Ignition Sequence

The LEC A provides an ignition sequence that allows the lighting elements to warm up completely before reducing their voltage. The length of the ignition period can be configured between 1-99 minutes.

### Re-Ignition Sequence

The LEC A allows the ignition period to be repeated, according to user demand. This may be required in installations where users turn on the lights. The LEC A detects increases in the current (minimum 5A per phase) and repeats the ignition process.

### Operation Modes

**Manual** – manually switches between saving and bypass modes. Used for maintenance

**Remote** – activates the LEC via an external command (timer or photocell)

**Automatic** – activates the LEC and the load at a configured time

**Astro Clock** – activates the LEC and the load according to time of sunrise/sunset

### Real Time Clock

The real time clock enables LEC A operation in automatic and astro-clock modes, which depend on date and time.

### Astronomic Clock

An astronomic table that controls outdoor lighting and allows lights to be turned on and off according to the time of sunset and sunrise. This minimizes the operating hours of the lighting and helps save additional 5-10% of energy.

### Time Windows

LEC A has four defined time windows that control the different levels of voltage to the load at different times of the day.

### Percentage Saved

The LEC A calculates and displays the estimated percentage saved and accumulated total saving in KWH.

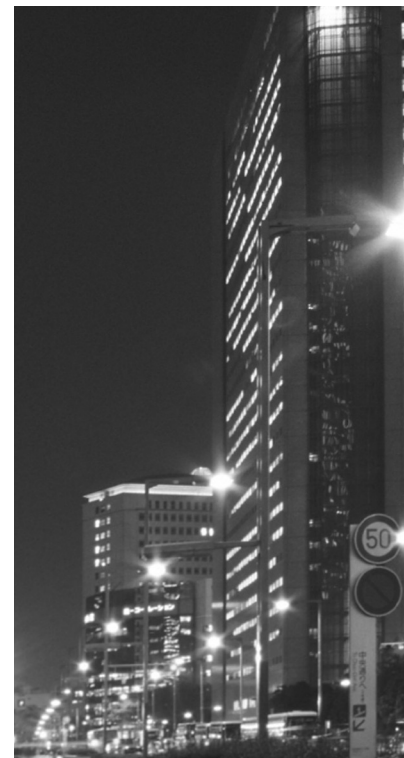


**ENERGY SAVING:**  
15% - 35%

**LIGHTING SYSTEMS:**  
Due to its flexibility in voltage reduction, the LEC A is recommended for use with Metal Halide bulbs

**APPLICATIONS:**  
Logistics centers, retail stores, factories, service stations, street lighting

**RANGE:**  
3x20A – 3x250A



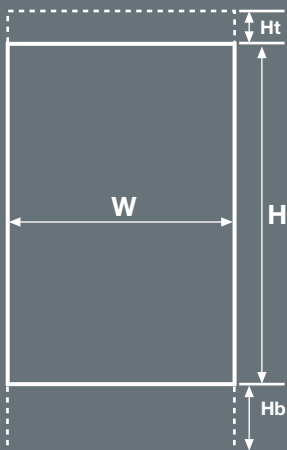


## COMMUNICATION & CONTROL

RS232/485	Integrated MODBUS/RTU protocol for bi-directional communication with any SCADA system or control equipment.
Input	Dry contacts terminals to control LEC Start, Stop or Bypass mode. Can be connected to a photocell, timer or control device.
Output	Dry contacts terminals for alarm state. Can be used for connecting an auxiliary device such as buzzer or flashing light.

## TECHNICAL SPECIFICATIONS

INPUT VOLTAGE	3x230 VAC ± 10%	IP CLASS	IP21 / IP31 (with covers)
OUTPUT VOLTAGE	Up to 35V reduction First decrement - 15V Following decrements - 2.5V	CLIMATE CLASS	4K4H
FREQUENCY	50Hz/60Hz	HUMIDITY	0% - 90%
EFFICIENCY	99.5%	SURGE VOLTAGE	2000V
THD	< 1%	SURGE CURRENT	According to circuit breaker
AMBIENT TEMPERATURE	-20°C - +50°C	SHORT CIRCUIT CURRENT	According to circuit breaker



- NOTES:
- Ht and Hb are used for optional top and bottom covers
  - 160A – 250A devices are supplied in metal cabinets.

CATALOG NUMBER	I (A)	KVA	DIMENSIONS HxDxW (mm)	WEIGHT (kg)	Ht (mm)	Hb (mm)	POWER TERMINALS
0L35-A10200-380	3x20	14	610x250x300	35	-	-	35mm <sup>2</sup>
0L35-A10300-380	3x30	21	612x285x396	51	26	155	35mm <sup>2</sup>
0L35-A10500-380	3x50	35	612x285x396	51	26	155	35mm <sup>2</sup>
0L35-A10800-380	3x80	55	643x313x536	69	26	175	35mm <sup>2</sup>
0L35-A11000-380	3x100	69	780x305x586	118	26	190	70mm <sup>2</sup>
0L35-A11250-380	3x125	86	780x305x586	118	26	190	70mm <sup>2</sup>
0L35-A11600-380	3x160	110	1500x455x800	230	-	-	120mm <sup>2</sup>
0L35-A12000-380	3x200	138	1500x455x800	240	-	-	120mm <sup>2</sup>
0L35-A12500-380	3x250	172	1500x455x800	280	-	-	120mm <sup>2</sup>

## PROTECTION

### Over-temperature Protection

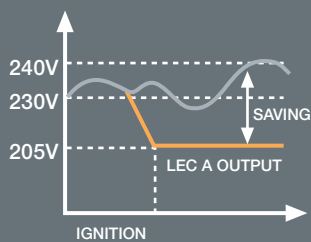
Thermo-switches that monitor the temperature of key components protect the LEC from over-temperature faults.

- A fan will be activated at 60°C.
- The LEC will automatically switch to bypass mode at 140°C and will supply net voltage to the load, without voltage interruption.

### Overload Protection

The LEC has two types of overload protection:

- Circuit breakers that protect against overload and short circuit current.
- Switches to bypass mode if the input current during saving mode is higher than 90% of the nominal current for more than 4 minutes.



The LEC A is EMC approved  
VDE EN 50178, 60439-1  
AS/NZS 3100:2002  
ETL UL – 916  
CE marking

Power Electronics Systems (2006) Ltd.  
is ISO 9001:2000 and IQNet approved

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