

ILUEST+CR

Lighting flow dimmer-stabiliser

ILUEST+CR: Regulation + Telemangement = Saving

With today's modern street lighting systems, it's not enough to reduce the voltage to supply the lamps to obtain energy savings. The criteria are different nowadays and the requirements have increased in accordance with the growth of street lighting. Applying the most advanced technology possible is needed as well as telemangement, monitoring and parameterisation of the complete block of units in order to guarantee the sustainability of the lighting system.

The **ILUEST+CR** series of advanced lighting flow dimmer-stabilisers from **Salicru**, takes over from its highly successful and field-tested predecessor, has vast improvements in critical aspects of modularity, power density, protection and telemangement. As a result, greater flexibility in areas of power growth, maintenance, commissioning and equipment integration can be better realized along with superior reliability and shorter payback periods.

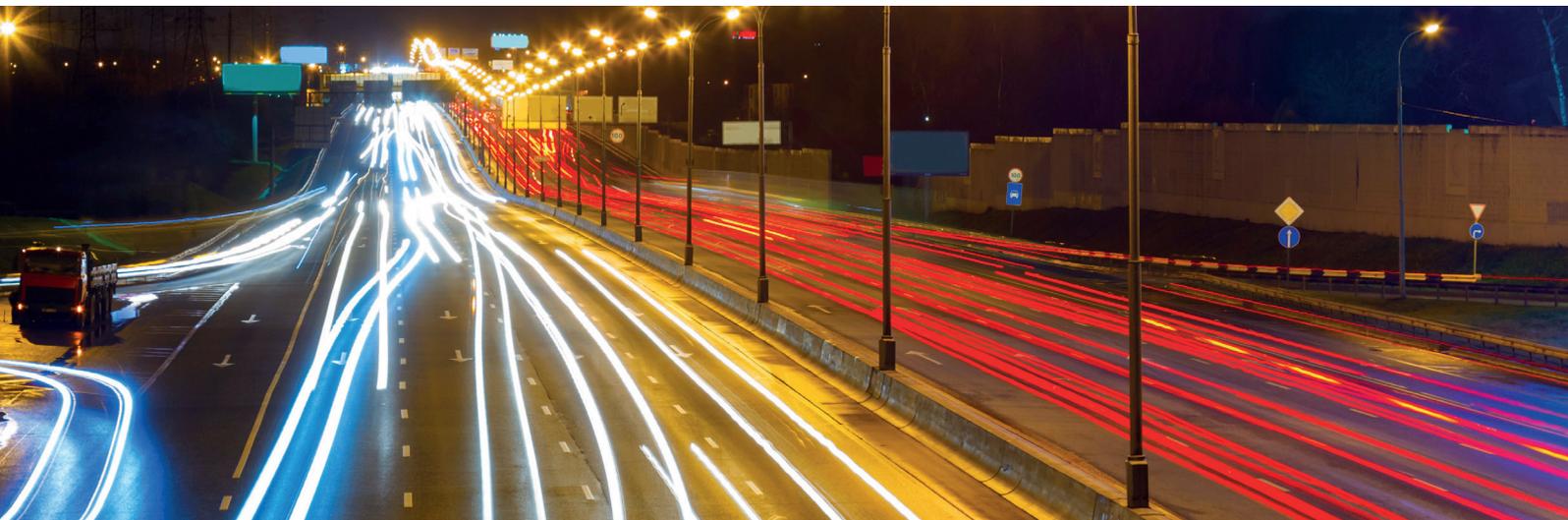
The **ILUEST+CR** series is available in a wide range of powers, has 3 implementation variants - indoor, outdoor and OEM Kit - and several possibilities of monitoring. Used in conjunction with our powerful telemangement technology, the ILUEST+CR is now the state-of-the-art reference in lighting regulation and control.



Applications: Lighting savings and management

The **ILUEST+CR** is suitable for use in many areas, both industrial and commercial e.g. roads and highways, road bridges & tunnels, airports, hospitals, commercial centres, ports, railroads, car parks and many more. The superior supervisory and remote control capability of the **ILUEST+CR** will result in the better and more efficient management of lightings, regardless of their applications.

As an example, our studies have shown that a town of 10,000 inhabitants with 1,700 public lighting points would consume an average of 1,210 MW of electricity per year. By using just 20 units of the **ILUEST+CR** rated 20 kVA each, potential annual savings of 490 MW can be realized, translated to 270 Tm less CO2 to the atmosphere.



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SMART
SOLUTIONS

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Performances

- Bi-directional 'Buck' converter with IGBTs, electronic, static and transformerless.
- Continuous regulation of the output voltage, no voltage steps; higher lamp lifetime.
- Lineal and programming ramps.
- High response time.
- Stabilisation better than $\pm 1\%$ + saving voltage periods = savings > 40%.
- LCD display, as standard.
- Protections with automatic programming rearm due to overload and overtemperature.
- Protections with fuses ⁽¹⁾ and against lightning arrestors.⁽²⁾
- Automatic bypass per phase, independent operating, manual operating ⁽³⁾, active by default and break before make.
- RS-232 port + MODBUS protocol, as standard.
- Telemangement card built in completely.⁽⁴⁾
- Duty cycle adapted to the warm up curve of the lamp.
- Programming of two saving levels and start voltage via LCD display.
- Average payback of the investment between 6 and 24 months.⁽⁵⁾
- Low weight and dimensions, higher power density.
- No harmonic injection to mains.
- SLC Greenergy solution.



(1) In the equipment.

(2) MOV (Metal Oxid Vasisitor).

(3) Through stated input or keypad.

(4) In frontal slot provided for this purpose.

(5) Estimated 0.09 €/kWh rate.

Monitoring

All of the units, regardless of the format, include synoptic panel as standard, comprised of:

- **LCD panel:** It provides input / output voltages, frequency, load and saving percentage levels, output currents, active power, apparent power, power factor, load type and temperature. It includes timer, astronomical clock and event data logger.
- **Communication ports:** RS-232 via RJ-45 connector for local PC monitoring.
- **MODBUS protocol.**



Options

- External or internal manual bypass.
- GSM/GPRS modem.
- Telemangement card.
- Digital I/O card (digital inputs and outputs).
- Atmospheric gas discharger.

Technical support and service

- Customized studies and simulations of the saving and payback.
- Extended warranties (under request).
- Multiple formulae of maintenance and telemaintenance.

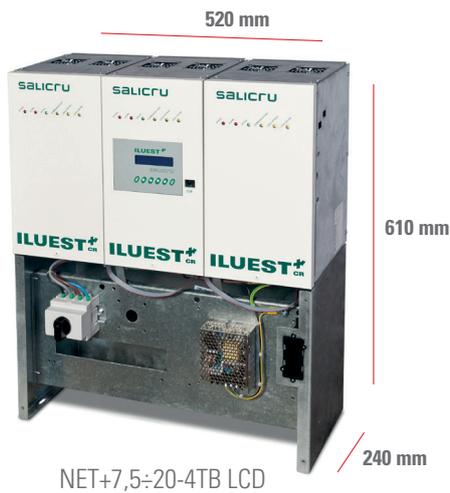
Range

MODEL KIT OEM	CODE	POWER (kVA)	NO. MODULES	DIMENSIONS (D × W × H mm)	WEIGHT (Kg)
KIT NET+ 7,5-4-LCD	657BA000001	7.5	3	172 × 172 × 310	11
KIT NET+ 10-4-LCD	657BA000002	10	3	172 × 172 × 310	11
KIT NET+ 15-4-LCD	657BA000003	15	3	172 × 172 × 310	12
KIT NET+ 20-4-LCD	657BA000004	20	3	172 × 172 × 310	12

MODEL INDOOR	CODE	POWER (kVA)	DIMENSIONS (D × W × H mm)	WEIGHT (Kg)
NET+ 7,5-4TB LCD	657AA000056	7.5	240 × 520 × 610	29
NET+ 10-4TB LCD	657AA000057	10	240 × 520 × 610	30
NET+ 15-4TB LCD	657AA000058	15	240 × 520 × 610	31
NET+ 20-4TB LCD	657AA000059	20	240 × 520 × 610	33

Nomenclature, dimensions and weight for models: 3x400 V / 50 Hz input/output.
For models with outdoor implementation, consult.

Dimensions



Implementations



Indoor version



Outdoor version



KIT OEM

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Technical specifications

MODEL		ILUEST+CR
TECHNOLOGY		Bidirectional 'Buck' converter with IGBTs, electronic, static and transformerless
INPUT	Rated voltage	230 V / 3 × 400 V
	Regulation range	+ 25% / - 7% nominal voltage; + 25% / - 17% saving voltage HPSV; + 25% / - 10% saving voltage MV/MH
	Rated frequency	48 ÷ 65 Hz
	Module protection	Input/output fuses / electronic for temperature, overload
	Protection for phase	Fuse
OUTPUT	Rated voltage	Adjustable 215 V to 230 V (220 V as standard)
	Accuracy	Better than ± 1%
	Soft start voltage	Preselectable ⁽¹⁾ and adjustable
	Saving voltage	Adjustable 180 V to 210 V
	Speed ramp setting	From 1 V/minute to 6 V/minute
	Response time	< 40 ms
	Regulation	Linear and independent per phase
	Performance	96% ÷ 98%
	Phase unbalancing	100% permissible
	Permissible overload	Through LCD panel or via telemanagement card communication
	Admissible overloads	150% for 30 seconds; 120% for > 1 minute
BYPASS	Type	No break
	Features	Automatic, reversible, independent per phase, independent operating, input for manual activation
	Activation criteria	Overtemperature, overload, fault, output fault, manual activation
	Rearm	Automatic by alarm cancelling. Quantity of retries: 5; time between retries: 2 minutes
COMMUNICATION	Ports	RS-232 and RS-485 ⁽²⁾
	Monitoring	Telemanagement card ⁽²⁾
GENERAL	Operating temperature	- 20° C ÷ + 55° C ⁽³⁾
	Relative humidity	Up to 95%, non-condensing
	Maximum operating altitude	2,400 m.a.s.l.
	Acoustic noise at 1 metre	<48 dBA (with typical load)
	Mean time between failures (MTBF)	60,000 hours
	Mean time to repair (MTTR)	30 minutes
IMPLEMENTATIONS	Indoor	Modules built in assembling base (chassis of sheeted steel at carbon cold with drills to fix to the wall)
	Outdoor	Indoor built in a polyester cabinet
	OEM kit	Modules + Supports + Control wiring + Power Supply
STANDARDS	Safety	UNE AENOR EA 0032:2007
	Electromagnetic compatibility (EMC)	IEC 62041
	Operation	UNE AENOR EA 0033:2007
	Quality and environmental management	ISO 9001 & ISO 14001

(1) Depending on type of lamp

(2) Optional

(3) 4% power derating per each degree over 45°C

Information subject to change without notice.



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