

LEC

LIGHTING ENERGY CONTROLLERS



LEC B - 80A

LEC B - is a unique and economical unit, designed to save 25% of power consumption in discharge lighting systems.

In addition, the **LEC B** extends lighting elements lifetime, improves line power factor and line conduction losses, without any change of infrastructure.

Lighting Energy Controllers

ENERGY SAVING

Voltage reduction within the nominal applied to H.I.D bulbs can **save substantial energy**. The voltage supplied in Europe is 230-245 VAC. The nominal voltage of H.I.D bulbs is: 207-253 VAC ($230 \pm 10\%$). The difference between the supplied and required voltage causes a waste of energy paid by the users.

The **LEC B** reduces the voltage to discharge lighting bulbs by 10%, when the voltage level allows that. Thus creating a current reduction of about 25% resulting in:

- Line losses reduction of 44%
- Improvement in power factor 2-10%
- Inductors losses reduction
- Lighting element life time is extended

All this is achieved via inducing the unnecessary energy resulting in a very compact, light and sturdy product.

LEC

The **LEC B** was designed for basic applications such as street lighting, parking lots, industrial halls, hospitals, shopping centers, etc. and leads with the following advantages:

Saving of about 25% of energy consumption

Substantial extended lifetime of lighting elements.

Creates no wave distortion ($TRD < 1\%$).

Requires no change in infrastructure; cables, capacitors ect.

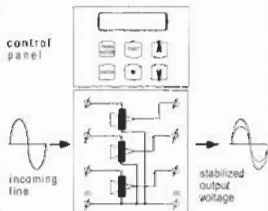
Requires no special snubbers or filters.

Suits all types of lighting elements (Fluorescent, Metal Halide, HPS, Mercury).

User friendly; easy to install and operate.

Sturdy; high resistance to malfunction or mechanical damages.

LEC - Block Diagram



TECHNICAL SPECIFICATIONS

LEC B

Process

At the ignition stage, full net voltage is supplied, after a delay of 5-10 minutes, the system will switch to the saving mode.

Technical Data

Input voltage: 3x230 \pm 15% (L-0), 3x400 (L-L)

Output current: (nominal before saving mode)

Dimensions (mm)

LEC B 3x30A H:432 D:242 W:275 - 25Kg

LEC B 3x50A H:432 D:242 W:275 - 26Kg

LEC B 3x80A H:432 D:242 W:275 - 34Kg

LEC B 3x100A H:612 D:258 W:396 - 58Kg

LEC B 3x125A H:612 D:258 W:396 - 58Kg

Parameters and Data display

- Ready
- Running
- Under voltage
- Over voltage

Manual bypass

Switch is available for service purposes (saved off/ bypass)

Power switch gear

- Input changeover switch (bypass/ off/ save)
- Output circuit breaker
- Contactors

Communication

RS 232/ RS 485

Protections

- Under current
- Over current

• The LEC is IP21, and should be installed in a suitable enclosure.