

HIGH EFFICIENCY LED LIGHTING SYSTEM

Description:

Advances in the performance of the new high luminosity LEDs allow their use in applications with higher performance than decorative, emergency or signal lighting. These light emitters can be used in functional lighting applications with consumptions that can be assumed by medium and high capacity battery systems. But battery power systems have certain drawbacks, such as the adaptation of the values ??of the storage systems to the needs of the LED arrays or that the output voltage values ??of the battery depend on the state of charge of the same. Thus, in the present invention, it proposes a battery-powered lighting system that comprises a matrix of LEDs in which the elements for regulating the power supply of the diode lamp can be dynamically adapted at the same time as the electrical structure of the the same, through a digital control, working only in the moments that are strictly necessary, maximizing the efficiency and overall durability of the equipment, achieving high illumination with a lower consumption and number of LEDs.

Keywords:

[Electronics](#), [Led](#), [Illumination](#)

Sectors:

[Electronics](#), [Engineering](#)

Areas:

[Hardware](#) / [Devices](#) / [Components](#), [Electronics](#), [Equipment](#),
[Technological Improvements](#)



Advantages:

Among the advantages of the present invention, the following stand out: • The system is very simple, using as few components as possible. • It is very reliable. • Allows you to work with maximum energy efficiency at any temperature, work environment or battery charge level.

Uses and Applications:

This technology can be applied as an outdoor lighting system, whether advertising, facades, posters, etc.

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