Energy Saving Products Company -

Energy-saving Products

ESE-ZM Street Lamp Energy Saving System

About the Product:

ESE-ZM Street Lamp Energy Saving System is specially designed for street lamp based on the electric saving of the light. It is of unique and advanced design with pleasing and practical rain-proof cabinet as well as flexible control modes. The energy saving system adopts many intelligent automatic control systems such as: sound, light and infrared control. The circuit of the street lamp can be switched in a preset time. The photoelectric automatic control device sends orders by making use of the changes of photosensitive element under natural light to make the control of street lamp more convenient and the operation more economical. The electricity saving rate is 15%-35%.

System Features

- significant electricity saving effect: electricity saving rate is 15%~35%, life span is as long as more than ten years, once investment with long-term benefit.
- The street lamp electricity save device is of outdoor type, which has professional and pleasing appearance.
- Through the purification of the system and power optimization, the working temperature of the lighting equipment is significantly reduced.
- It extends the life of equipments, lamps, ballasts, and switched as well as significantly reduces maintenance costs.
- Ensure easy start lighting system, jitter-free, no flashing lights and stable operation.
- Improve the power factor and reduce inactive power loss
- Easy to use: automatic power saving, open or close at a set time, without personal care
- without changing the original control circuit and the user's habits of electricity.
- It outputs complete sine wave without polluting the grid and conducts

smooth light control.

- It has stable and reliable performance without affecting other equipments. It is more flexible and practical in mixed circuits.

Energy saving principles

With the prosperous of the economy and the development of the urban areas, urban lighting engineering is becoming more and more perfect and beautiful. Especially, with the emergence of ever-bright cities, the electrical expenditure is amazing. Therefore, it is crucial to reduce the circuit losses, equipments and lighting devices as well as save electricity expenditure. Our national grid is universally of higher and unstable voltage in the evening, which causes tremendous lighting waste and destruction.

1. reasonable voltage adjustment to make full use of the lighting devices.

According to the current voltage characteristics of national grid: the voltage of power supply is apparently different during the peak time and free time, which lead to the fluctuation of the load. Generally, some lighting devices work at rated voltage or low voltage during the peak time. However, during the trough time, especially in the late night, the voltage rises and the street lamp will be worked under over-voltage conditions, which increases unnecessary power loss and damages the electrical facilitates. ESE-ZM Street Lamp Energy Saving System curbs the current by reducing the peak voltage and takes measures to keep the voltage stable. After preheating, it properly adjusts the voltage at both ends of lamps to keep the lamps working at the best voltage level, which not only reduces unnecessary power consumption, lamp loss but also saves maintenance costs.

2. Improve power factor

Power factor is an important indicator which reflects the using extent and condition of the power energy. It mainly depends on the load property of the electrical equipments. At present, the fluorescent lamps, high voltage sodium lamps, metal halide lamps and other lamps have very low power factors, large inactive power, large inactive current and high-temperature. ESE-ZM Lighting Energy Saving System adopts special structure design. The energy saving equipment produces stimulating current and absorbs part of reverse current to compensate inactive power of load operation. Thus, the power factor is increased and the temperature of the lighting devices is lowered. Meanwhile, the life spans of the lighting device as well as its subsidiary equipment have lengthened. (Every 10 degrees decrease of the temperature, life may be extended twice).

3. Inhibit high harmonics and balance three-phase current

Various transistor dynamic equipments such as frequency device and soft start device, and frequent start of large quantities of dynamic devices causes high harmonics and transients interferences, which would harm the electrical devices and circuits especially precision instruments and meters. Normal size

of the drive electric meter depends on the voltage and current in the circuit. Just because of the existence of high harmonics and transients, it will result in sudden change of the torque, which will further result in excessive measurement. It is unnecessary for the users. ESE-ZM street lamp lighting energy saving system is of balanced electricity and magnetic, system evolution as well as compensation functions. At the same time, inductance coupler can effectively regulate the current rate; inhibit high harmonics, electrical surges, and other interferences. It also can maximize the elimination of excessive measures, which is an ideal energy-saving product.

Electrical Parameters

- power supply voltage: 380VAC±10% 50Hz±2Hz
- environmental temperature: -20°C~50°C
- humidity: 20%~90%RH
- working current range: OA~ maximum capacity of the energy saving device
- frequency input: 50Hz
- voltage output: 185V~230V（can be set by oneself, automatic stable voltage）
- insulate voltage: between the cabinet and the charged parts 2KV
- sine wave distortion：≤1%
- unloads loss: ≤3‰
- electricity saving rate: 15%~35%