Molex makes the advantages of LEDs available to the temporary lighting market in compact, convenient string lights.

BUSINESS CHALLENGE

With the energy efficiency and durability provided by LEDs, the need existed in the marketplace for a string light product that combined the benefits of this technology into one maintenance-free, integrated package that could be reused job after job.

Conventional string lights have sockets for users to install their own lamps, either incandescent, LED or CFL, and feature guards that can extend 9” or more below the hanger. In tight spaces such as shipyards and some construction sites, the reduced clearance could prove to be a hindrance.

Even with guards in place, theft and durability remains a concern, as lamps can be stolen or break and lead to broken-glass and electrical hazards. Incandescent lamps have a typical life span of about two months, and over a year that can add up to dozens of changes, proving to be costly for companies in terms of labor for lamp replacement and workflow disruptions.

Most costly with the use of incandescent lamps in a traditional string is the amount of energy consumed. A single 150W incandescent lamp exceeds the power draw of an entire 10-light LED string. When using incandescent lamps, each 10-light string must generally be powered from its own breaker-protected outlet. If two strings were to be connected end-to-end, the power draw would exceed the rating of the circuit breaker (15A/1875W), causing the breaker to trip and disconnect the circuit.

SOLUTION

With an integral light source and low-profile design, durability is assured, the need to source additional components is eliminated and significant headroom savings is achieved.

Molex makes the energy-consumption benefits of LEDs available in the temporary lighting market with the introduction of its new LED string lights. When compared to a continuously operating 10-light string of incandescent lamps, the Woodhead LED string light can save users upwards of $1,000 per year in energy costs for a single string.

With one Woodhead LED String Light drawing 140W total, users are able to connect up to 12 strings end-to-end and power them all using a single 15A/1875W power outlet. This energy efficiency leads to further reduced costs such as less temporary wiring, lower wire gauges, and smaller generators required to support temporary lighting.

Featuring a durable polycarbonate lens, Woodhead LED String Lights are extremely impact resistant, leading to no downtime for lamp replacement and less maintenance costs. The lens also diffuses the light to create an even disbursement of light with no hot spots and a natural color temperature of 5000K, compared to an incandescent lamp’s 2700K.

The integrated design means there are no other parts to source and keep on hand, and installation is as simple as mounting and plugging them in. The elimination of the guard or cage provides 4 to 5” of extra headroom, with the bottom of the lens being less than 5” below the hanger on each socket.

In contrast with other temporary lighting products that are treated as disposable and discarded after each job, the Woodhead LED String Light uses higher quality materials and is built for reuse, ultimately leading to lower total cost of ownership. This LED string light is listed to the UL1088 Temporary Lighting standard and uses a higher gauge 12/3 cable, which is the requirement for use in some shipyards. The product’s durability makes it especially appropriate for use in the harshest environments.
KEY BENEFITS

**A compact, energy-efficient lighting solution that provides greater durability and better light quality**

- Energy consumption is one-tenth that of 10-light incandescent string light
- Up to 12 strings can be connected end-to-end and powered by a single 15A/1875W outlet
- Durable polycarbonate lens; no lamps to get stolen or broken due to impact on the job site
- Low-profile design provides 4 to 5” of extra headroom
- Produces a more natural color temperature, closer to sunlight
- Built for reuse, ultimately leading to lower total cost of ownership