THE ADVANCED SOLAR LIGHTING SYSTEM

Modular design
You can choose from various parts you would like integrated in the pole, making use of standard components or optional modules like a telemetry module, a GSM module or a customer specific module.

The Soluxio is compatible with a broad range of luminaries and brackets.

High-performance solar cells
The solar cells are the heart of any solar lighting system in the market, not only because of their high efficiency (over 23%) but also because of their high temperature performance. The Soluxio’s solar cells remain efficient even at high temperatures.

Cylindrical glass
Glass is superior to plastics (like e.g. Polycarbonate) which show yellowing, degradation (by sunlight) and it scratches easily in time. The Soluxio’s cylindrical glass delivers the highest possible performance.

Optional Anti-Reflective treatment makes sure that no glare will be visible during operation and that the energy output will be increased. Another option is a self-cleaning or dirt repellent coating which reduces the operational costs of the light pole.

Like a conventional solar panel
The cells are directly laminated onto the cylindrical glass, like a conventional solar panel. This increases the performance significantly. No air and dirt can accumulate in-between the cells and the glass and the reliability is increased.

Increased redundancy
Every side of the solar module is independently controlled which optimizes and increases maximum power output. Another advantage is the redundancy of each panel, if one the panels are partially damaged or broken, it does not affect the other part of the module. Also the electronic components are redundant, so if one part fails, the rest will still operate.

Custom Design
If you have a specific pole design in mind, including different kinds of brackets, surface finishing, solar module color or electrical design etc., we are the company to contact. Powder coating, anodizing, even a golden finish of the solar module is an option.

Circular shape
Most lighting columns have an aerodynamic, circular shape, so does the Soluxio. This offers numerous advantages. The overall resistance in deflection, torsion and buckling is much higher than for octagon, hexagon and square shapes. Also, the shape being perpendicular to the sun, from all angles, guarantees a better irradiation of the solar cells.

Lithium batteries
Lithium batteries have many advantages compared to conventional (Lead Acid, VRLA, etc) batteries:
• Better low- and high temperature performance;
• Longer replacement timeframe (8-10 years);
• Maintenance free;
• Eco friendly (lower environmental impact than other batteries);
• No memory effect;
• The batteries can be placed inside the pole. Alternatively they can be placed next to the pole in a separate battery box in the ground.

The best available in the market
The Soluxio is developed with world leading partners, resulting in the best solution in all minor details. Developed, engineered and manufactured in the Netherlands means that only the highest quality is delivered conform European Standards.

It is also possible to deliver the Soluxio with a ground piece for installation into the ground.
SOLUXIO: THE ADVANCED SOLAR LIGHTING SYSTEM

The stand-alone Soluxio is the solution in areas where there is no grid or other lighting infrastructure available. This high-tech pole charges itself by making use of highly efficient integrated cylindrical solar panels. Even in case of cloudy weather, low yield or indirect sunlight, the light pole still generates the desired amount of energy.

Sustainable and environmentally friendly

Solar cells

The solar integrated in the Soluxio pole is best performing in bright sunlight, while the performance of Lead Acid batteries decreases significantly, even in the case of indirect sunlight. Lithium batteries are the best to choose for the Soluxio, as they generally ensure once energy in higher temperature compared to Lead Acid batteries. Further, the Li-ion (LiFePo4) is a high-end battery and widely used in cell phones, cameras, etc. This high-tech pole charges itself by making use of highly efficient integrated cylindrical solar panels. Even in case of cloudy weather, low yield or indirect sunlight, the light pole still generates the desired amount of energy.

Deeper discharge tolerance (cycles Lead Acid @ 80% DOD)

Better high and low temperature performance.

Working temperature (97% vs 75% for Lead Acid batteries).

High turn around charge efficiency (95% vs 50% for Lead Acid).

Maintenance frame (8 - 10 years vs 1.5 - 2 years for Lead Acid). The warranty is 3 years by default and up to 5 years (dependent on the installation conditions).

Notes:

- The system has a built-in solution to dim the light.
- The system has a built-in solar drivers and most 3rd party powercontrol / driver compatible with all Philips LED luminaries and more information available in our technical data sheet.
- The system can be equipped with the Soluxio DC-driver for LED luminaries. This driver is specifically designed for the Soluxio to avoid working with inefficient inverters. Please check with our sales team for more details and how to combine your luminary with the Soluxio DC-driver.
- For an overview of possible luminary configurations of the light pole e.g. the number of solar panels, please check with our sales team.

Batteries

The Soluxio works with most LED luminaries that operate with solar drivers and most 3rd party solar drivers and most 3rd party powercontrol / driver compatible with all Philips LED luminaries and more information available in our technical data sheet. The system can be equipped with the Soluxio DC-driver for LED luminaries. This driver is specifically designed for the Soluxio to avoid working with inefficient inverters. Please check with our sales team for more details and how to combine your luminary with the Soluxio DC-driver.

DC-driver

This DC-driver is specifically designed for the Soluxio to avoid working with inefficient inverters. Please check with our sales team for more details and how to combine your luminary with the Soluxio DC-driver.

Solar module protection

Metal finishing on request, standard black/white.

Optional: Anti-reflective (AR) and Anti-Soiling (AS) surface treatment. Soluxio glass has a higher scratch resistance compared to regular glass.

Solar drivers

Compatible with most solar drivers and inverters on the market.