



1 Smart Bus Stop

The SmartBusStop is the world's most powerful and reliable solar powered LED shelter lighting system. Providing intelligent control with superior technology and aesthetic design, the SmartBusStop delivers safe and environmentally-friendly lighting for any shelter application. Designed specifically for the public transports sector, the SmartBusStop can be adapted to meet local transit authority requirements.

2 Skylight

Building-integrated photovoltaic (BIPV) materials that are used to replace conventional building materials in parts of the building envelope such as the roof, skylights, or facades. In this hall we have 2.17kw installed in the BIPV Roof.

3 Operation Management Center (OMC)

Photovoltaic solar plants/facilities across the world are monitored in real time 24 hours a day at this center, which is equipped with cutting-edge technology and a highly specialised team. The Center also offers Operation and Maintenance support for customers at their photovoltaic plants/facilities, particularly preventative and corrective maintenance and, whenever necessary, puts intervention mechanisms in place.

4 Smart Lighting

The Street Lighting solution made by Martifer Solar is the main answer to bring light into the night, offering

a complete package for illuminating streets, city parks, playgrounds, etc.

In essence, the photovoltaic lighting system is made up of the solar panels, batteries and all equipment to store energy and provide light for several hours a day and has two or more days of autonomy.

5 R&D-I Outdoor Laboratory

Due to demand for testing new products and technologies, Martifer Solar has built outdoor test facilities.

Modules with different materials, inverters and micro-inverters are tested here.

6 Thermal Solar Modules

This installation is made up of 30 thermal solar panels that heat water.

The solution is made up of a solar heating system (thermal solar panels) and Chillers (used only when the sun does not meet heating requirements), to heat an average of 7,200 litres of water per day.

7 Shades - Tilt 60°

Façade solution, with an anodised aluminium structure, which is quick and easy to install directly on the façade. This solution can be installed on buildings as a shading system, providing greater comfort and energy efficiency.

The example on show at the Campus makes it possible to compare two installations of 1kWp each and two types of silica, polycrystalline and amorphous technology.

8 Roof Solution

The roof of the Martifer Solar Factory is covered with an installed capacity of 250kW and accounts for reduced CO2 emissions of approximately 165 Tons. This is a real example of using and making the most of a "dead" space and transforming it into an asset by installing photovoltaic modules directly at the site of consumption.

9 Off-Grid Solution - Lighting

The term off-the-grid (OTG) can refer to living in a self-sufficient manner without reliance on one or more public utilities.

Off-grid electrification is an approach to access electricity used in countries and areas with little access to electricity, due to scattered or distant population. The off-grid system allows for self-consumption of energy produced.

10 SmartPark® Dual/Single

SmartPark® is an integrated parking solution developed to combine an architectural vehicles cover structure with a solar energy producing system. The cutting-edge technology incorporated in SmartPark® results in a "plug and play" product that can be customized according to the client's requirements.

11 SmartOffice

The SmartOffice is a modular and integrator solution, designed to operate on-grid or off-grid, as an office, with all basic conditions to work. It is a

pre-assembly product for easier and faster installation and this makes the product very attractive, especially for geographies with grid limitations.

12 Smartvoltage®

The SmartVoltage® is a modular and integrator system (solar + diesel generator + batteries, etc.) that can be designed for very specific applications, both on- and off-grid (but especially for off-grid).

The product includes an intelligent energy management system. It is a pre-assembly product for easier and faster installation and this makes the product very attractive, especially for geographies without a grid or with electricity problems.

13 E-W Structure

It is an structure to test different tilts with East-West orientation and compare the performance with others structures with south orientation. This structure have installed different PV technologies with micro-inverters.

14 Smartroofing - Flat Roof

Smartroofing Flat Roof Solution has been designed for the installation of tilted modules on rooftops. The material used, anodised aluminium, is especially adapted to aggressive environments including maritime ones. Safe installation on rooftops is guaranteed by foundation supports. It is adapted for use with independent modules systems.

15 Gravitation Solutions

This kind of solution makes it possible to use photovoltaic panels without having to install foundations or perforation systems. Can be of great use on rooftops and terraces. This type of use requires that weights be added to the inside (concrete blocks, gravel, sand, etc.) so that they can withstand bad weather.

16 Smarttracker® - Tilt 30°

It is a complete PV tracking solution with north-south orientation, 30-degree tilt and east-west rotation axis. Smarttracker® - Tilt 30° is a one axis tracker which ensures high efficiency thanks to its adjustable tilt and tracking system. The position of the actuator is monitored by the controller to ensure alignment. The Range of Motion is +/- 45°.

17 Smartroofing - Integrated Roof

Building Integrated Photovoltaic (BIPV) solution. This solution for rooftops, which replaces conventional roof tiles with a photovoltaic solution that is integrated perfectly into the building, which is guaranteed weatherproof and makes use of a "dead" space by transforming it into an asset. Installation is limited to rooftops with an incline of between 15° and 50°.

18 Concentrated Photovoltaic (CPV)

This concept consists in concentrating sunlight using optical devices that reduce the solar cell area, thus

increasing the module's efficiency. Martifer Solar is developing its own CPV system. This kind of technology requires a good tracking system to follow the sun. It uses 3J cells, Fresnel lenses and secondary optics with an acceptance angle of 1.2 degrees.

19 Electrical Charger

The MCR16 Electrical Charger (produced by Magnum Cap) is the perfect solution for securely charging your vehicle in mode 1, 2 and 3. With a light and appealing design, and total safety for the user and vehicle, it is recommended for indoor and outdoor parking lots and public charging spaces. Graphic charging status indication, including elapsed time, energy consumption by both price and kWh. RFID card reader and charging mode 3.7kW.

20 Smarttracker® - Horizontal Axis

Smarttracker – Horizontal Axis is a complete PV tracking solution, with north-south orientation and an east-west rotational axis. This product is compatible with crystalline and thin film PV modules. The tracking function is provided by a custom microprocessor controller that uses a GPS time reference and a precise astronomical algorithm to automatically and accurately point the panels at the sun. The position of each actuator is monitored by the controller to ensure alignment. The Range of Motion is +/- 45° from zenith.