



PHOTOVOLTAIC SOLAR ENERGY STREETLIGHTS - SI-ESF-L-MODERN-54W



Street lighting using solar streetlights has developed as one of the major applications of solar photovoltaics.

All our outdoor luminaires are based on high-performance LEDs, and incorporating our unique digital control system allowing the control of the functions of the luminaire (optical, temperature, etc.) and ensure their useful life, and an optical system modular developed to offer virtually exclusive photometric solutions for each client.

It is increasingly common to see on highways, streets and gardens lamps powered by solar energy. These devices, which allow to use solar energy to illuminate the streets, as part of our urban landscape. Our solar lamps are designed as a solution for outdoor lighting systems for public and private sector.

POLE AND BASE FLANGE



Has a tubular shape, is made of hot galvanized steel, according to UNE 37501-71, to avoid damage by weather, and calculated to withstand wind loads.

It supports the luminaire arm as well as the holding structure of the photovoltaic module.

BOX



Galvanized steel box with plastic coating sprayed to contain the electronics and battery management.

PV PANEL



Are the elements responsible for capturing the sun's energy and transform it into electricity. Solar panels are quite similar to those used for other photovoltaic applications, only suitable in size.

LIGHTING



Elements that convert energy stored in the battery light. We employ efficient LED lights to maximize the captured energy, totally ruling out incandescent bulbs for being great wasteful of energy.

BATTERY



Component designed to store the energy collected by the panels during the day to use it at night in the lighting of the luminaires.

CONTROLLER



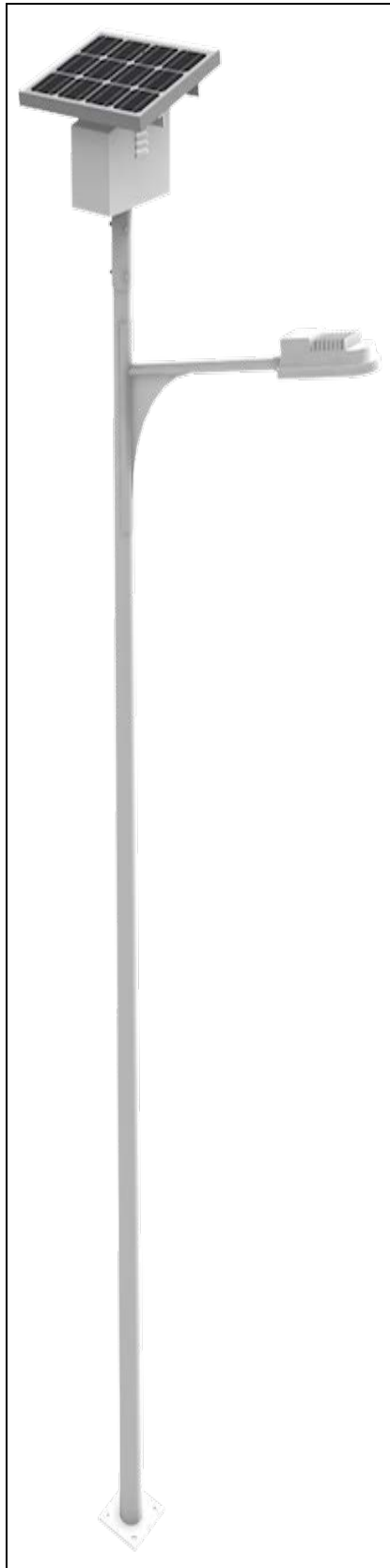
The lamp uses a system of regulation and control that is in a sealed box which guarantees its operation in damp and / or corrosive. This controller has been designed especially for the management of autonomous photovoltaic luminaires. Optimizes and streamlines the use of stored energy.

CHARACTERISTICS OF WORK

On-time 100%	Hours/Day	4
On-time 50%	Hours/Day	6
Autonomy without charge	Days	3-5



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POLE, PANEL BRACKET, BASE FLANGE		
Support structure	Material	Zinc hot dip galvanized and powder-coated
Material	Type	Steel grade Q235
Height	m	6
Thickness	mm	3
Diameter	mm	70 ~ 150
Base flange	mm	280 x 280 x 14
SCREW		
Material	Type	Steel
Thread	mm	M18 x 4
WIRING		
Material	Type	Copper
Section	mm	2 x 2.5
Length	m	15
BOX		
Material	Type	Galvanized steel with plastic coated
Ingress Protection	IP	54
Size	mm	406 x 174 x 232
PV PANELS		
Cells	Type	Monocrystalline/Polycrystalline
Maximum power (Pmpp)	Wp	145
Tolerance	Wp	0 ~ + 3.6
Voltage at maximum power (Vmpp)	Volts	18.25
Current at maximum power (Impp)	Amps	7.94
Open circuit voltage (Voc)	Volts	22.54
Short circuit current (Isc)	Amps	8.62
Maximum system voltage (Vsyst)	Volts	1,000 (IEC)
Diodes (By-pass)	Quantity	4
Maximum series fuse	Amps	15
Efficiency (ηm)	%	14.47
Form Factor	%	≥ 73
Size	mm	1,199 x 808 x 35
Weight	kg	12.5
Guarantee	Years	12
LIGHTING		
Surround	Material	Aluminum/Stainless Steel
Size	mm	610 x 260 x 62
Light source	Type	High Brightness LED diode
Power	W	54
Voltage	Volts	12
Luminous flux	Lm/W	90 ~ 110
Ambient temperature	°C	- 25 ~ + 75
Life span	Hours	75,000
Ingress Protection	IP	65
Guarantee	Years	2
BATTERY		
Technology	Type	Gel (free maintenance)
Size	mm	406 x 174 x 232
Current	Amps	120
Voltage	Volts	12
Weight	kg	34.1
Life span	Years	8 ~ 10
Guarantee	Years	2
ELECTRONIC		
Power control	Type	Optical and timer
Current	Amps	10
Voltage	Volts	12
Ingress Protection	IP	67
Guarantee	Years	2