



## PHOTOVOLTAIC SOLAR ENERGY STREETLIGHTS - SI-ESF-L-MODERN-36W



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



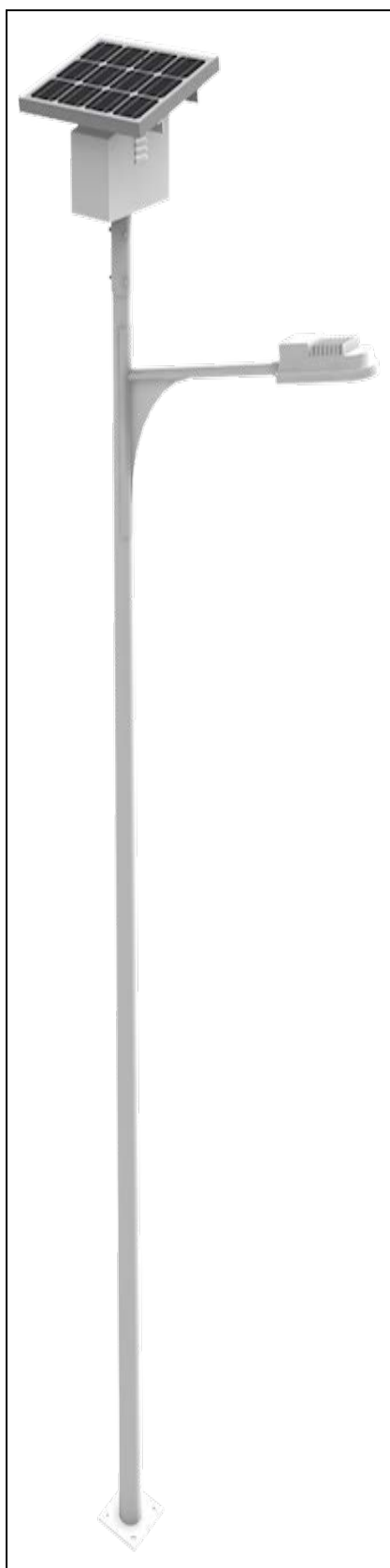
The lamp uses a system of regulation and control that is in a sealed box which guarantees its operation in damp and / or corrosive. This controller has been designed especially for the management of autonomous photovoltaic luminaires. Optimizes and streamlines the use of stored energy.

### CHARACTERISTICS OF WORK

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



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POLE, PANEL BRACKET, BASE FLANGE		
<b>Support structure</b>	Material	Zinc hot dip galvanized and powder-coated
<b>Material</b>	Type	Steel grade Q235
<b>Height</b>	m	6.2
<b>Thickness</b>	mm	3
<b>Diameter</b>	mm	63 ~ 140
<b>Base flange</b>	mm	280 x 280 x 14
SCREW		
<b>Material</b>	Type	Steel
<b>Thread</b>	mm	M18 x 4
WIRING		
<b>Material</b>	Type	Copper
<b>Section</b>	mm	2 x 2.5
<b>Length</b>	m	15
BOX		
<b>Material</b>	Type	Galvanized steel with plastic coated
<b>Ingress Protection</b>	IP	54
<b>Size</b>	mm	406 x 174 x 232
PV PANELS		
<b>Cells</b>	Type	Monocrystalline/Polycrystalline
<b>Maximum power (Pmpp)</b>	Wp	120
<b>Tolerance</b>	Wp	0 ~ + 3.6
<b>Voltage at maximum power (Vmpp)</b>	Volts	17.90
<b>Current at maximum power (Impp)</b>	Amps	6.70
<b>Open circuit voltage (Voc)</b>	Volts	22.60
<b>Short circuit current (Isc)</b>	Amps	7.20
<b>Maximum system voltage (Vsyst)</b>	Volts	715 (IEC)
<b>Diodes (By-pass)</b>	Quantity	2
<b>Maximum series fuse</b>	Amps	15
<b>Efficiency (ηm)</b>	%	13.61
<b>Form Factor</b>	%	≥ 73
<b>Size</b>	mm	1,240 x 676 x 35
<b>Weight</b>	kg	10.4
<b>Guarantee</b>	Years	12
LIGHTING		
<b>Surround</b>	Material	Aluminum/Stainless Steel
<b>Size</b>	mm	350 x 166 x 174
<b>Light source</b>	Type	High Brightness LED diode
<b>Power</b>	W	36
<b>Voltage</b>	Volts	12
<b>Luminous flux</b>	Lm/W	90 ~ 110
<b>Ambient temperature</b>	°C	- 25 ~ + 75
<b>Life span</b>	Hours	75,000
<b>Ingress Protection</b>	IP	67
<b>Guarantee</b>	Years	2
BATTERY		
<b>Technology</b>	Type	Gel (free maintenance)
<b>Size</b>	mm	406 x 174 x 232
<b>Current</b>	Amps	120
<b>Voltage</b>	Volts	12
<b>Weight</b>	kg	34.1
<b>Life span</b>	Years	8 ~ 10
<b>Guarantee</b>	Years	2
ELECTRONIC		
<b>Power control</b>	Type	Optical and timer
<b>Current</b>	Amps	10
<b>Voltage</b>	Volts	12
<b>Ingress Protection</b>	IP	67
<b>Guarantee</b>	Years	2