



Specification of Solar Street Lighting Systems

General

Application	Solar Powered Street Lighting for rural areas
Use	Outdoor
Operating Temperature	0 to 74 ⁰ C
Duty Cycle	12 Hrs
Number of days of autonomy	4 days

System Components

Module	
Module Type	Mono / Poly Crystalline Silicon
Open circuit voltage	>/=21V
Module power @ 16.4V @STC	74Wp / 37Wp(2nos)
Module mounting frame	Provided
Material	MS frame, Galvanized finish
Battery	
Type	Flooded Lead Acid (Tubular) or VRLA SMF Lead Acid
Battery voltage	12V
Battery capacity @ C/10	75Ah
Battery Box	Provided
Material	MS sheet, Powder coated / Galvanized finish
Luminary	
Lamp Type	CFL 4 pin
Lamp wattage	11W
Rated light output (lumens)	900±5%
Lamp colour temperature	5200K (Day light)
Light coverage	>180 ⁰
Light output degradation after 1000 ON/OFF (2 min On & 4 min OFF)	<8%
Nominal working voltage	12V DC
Inverter type	Quasi sine wave, Free running
Inverter frequency	24-28 kHz
Inverter efficiency	>80%
Lamp current crest factor	<1.6
DC component at the output voltage	Nil
Lamp starting	Soft start (Pre-heated)
Preheating time	<5 seconds
Lamp power @Inverter Frequency	11W
Lamp current @ Inverter Frequency	150mA
Power consumption @ 12V DC Input	13.5W ±10%
Fixing	Pole mounting with mounting brackets
Charge Controller	
Charge controller type	Series pulsed two step
Charging current	6A Max.
Charge controller efficiency	>92%
Idle consumption	<5mA
Indications	Charge and Low battery
Protection	Overcharge, Deep discharge, Reverse polarity, Module reverse current flow, Overload
Pole	
Height	4 Meters above the ground
Diameter	3" ± 5%
Material	Painted /Galvanized Iron (GI) pipe
Connecting Wires	
Module wire	2.5 mm ² wire with fork terminals
Battery to light unit wire	2.5 mm ² wire with ring and fork terminals