

Maruthi Solar Systems, Bangalore.					
Department				Form No.	
Title	Specification For SOLAR STREET LIGHTING SYSTEM CFL 1x 11 Watts				
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SPECIFICIATION OF SOLAR STREET LIGHT :

Sr. No.	Parameter	Value
1	General	
1.1	Application	Solar PV Street Light systems, RV systems, Village electrification, standby light source
1.2	Use	Outdoor
1.3	Lamp Type	Compact Fluorescent Lamp, 4 Pin, Single U MNRE approved
1.4	Lamp Wattage	11W CFL
1.5	Rated Light output (Lumens)	900 ± 5%
1.6	Lamp color temperature	4700-6000 Deg K (Cool white)
1.7	Light coverage	@ 180 Deg
1.8	Rated Lamp life (Average)	8000 Hrs
1.9	Light output degradation after 1000 ON/OFF (2 min ON & 4 min OFF)	< 10%
1.10	Humidity	95%RH
1.11	Storage Temperature	-20 to +70°C
1.12	Operating Temperature	0 to +50°C
2	Electrical	
2.1	Rated working voltage	12V DC
2.2	Rated Solar Module	74Wp
2.3	Battery	12 V 75 Ah @C10 Tubular positive plate
2.4	Working voltage range	10.5 to 14.4V DC
2.5	Inverter type	Quasi Sine wave, Free running
2.6	Inverter frequency	24-28 kHz
2.7	Inverter efficiency	> 80%
2.8	Crest factor	< 1.6
2.9	Lamp starting	Soft start
2.10	Preheating circuit	Required (Typical time 3-5 sec)
2.11	Lamp power (Type) @ High frequency	11 W
2.12	Current consumption @12VDC Input	1.1 A ± 10%
2.13	Reverse Battery protection	Provided with fuse
2.14	Overload protection	Provided with fuse
2.15	Open Circuit Protection	Provided
2.16	Dusk to Down Protection	Provided

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2.15	Solar charging Current	6A (Max)
2.16	Regulator Type	PWM Series Regulator(Micro controller based)
2.17	Self Consumption	< 6 mA (With no LED glowing)
2.18	Low Cut off Voltage	10.8V(+/-0.2V)
2.19	Reconnect Voltage	12.5V(+/-0.2V)
2.20	High voltage boost voltage	15.0V(+/-0.2V)
2.21	High voltage float level	14.5V(+/-0.2V)
2.22	Battery Low indication	Red LED
2.23	Battery charging indication	Green LED
2.24	Reverse blocking protection from battery to Array during night	Provided
2.25	Temperature compensation	Provided
3	Mechanical	
3.1	Pole and structure	4.5 mt GI pole with suitable panel mounting structure for 74 Watts SPV panel, suitable battery box to house battery and bend pipe to fit the luminaire.
3.2	Enclosure Dimensions (Over all)	440x 150x 115 mm
3.3	Case	Injection Molded Engineering Nylon back. Fire Retardant grade. (Optionally ABS plastic also can be offered)
3.4	Light Diffuser	UV stabilized / Poly carbonate type front cover.
3.5	Reflector	Highly reflective anodized aluminum
3.6	Color (case)	Black color
3.7	Sticker	Sticker as per given design.
3.8	Ingress Protection	IP 54
4	Accessories	
4.1	Cable	Interconnecting cables suitable length of 2 X 1.5 sq mm copper PVC insulated with sheathed with end terminals for connection.
4.2	Fuse	Fuse provided inside the luminary - 1 no of suitable type and rating