

<b>Maruthi Solar Systems. Bangalore- 560091</b>					
			<b>Form No.</b>		
<b>Title</b>	Specification For BOS for Solar Street light 2x11 W CFL				
<b>Date</b>		<b>Rev. No.</b>	00	<b>Page No.</b>	1 of 2

**SPECIFICIATION NO:**

<b>Sr. No.</b>	<b>Parameter</b>	<b>Value</b>	
<b>1</b>	<b>General</b>		
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, two nos of 4 Pin, Single U MNRE approved	
1.4	Lamp Wattage	2x 11 W	
1.5	Rated Light output (Lumens)	900 ± 5% each lamp	
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	
<b>2</b>	<b>Electrical</b>		
2.1	Rated working voltage	12V DC	
2.2	Working voltage range	10.5 to 14.4V DC	
2.3	Inverter type	Quasi Sine wave, Free running	
2.4	Inverter frequency	24-28 kHz	
2.5	Inverter efficiency	> 80% each Circuit.	
2.6	Crest factor	< 1.6	
2.7	Lamp starting	Soft start	
2.8	Preheating circuit	Typical time 3-5 sec	
2.9	Lamp power (Type) @ High frequency	11 W x 2nos	
2.10	Current consumption @12VDC Input	1.1 A ± 10%of each lamp	
2.11	Reverse Battery protection	Provided with fuse	
2.12	Overload protection	Provided with fuse	
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2.13	Open Circuit Protection	Provided
2.14	Dusk to Down Protection	Provided
2.15	Solar charging Current	6A (Max)
2.16	Regulator Type	PWM Series Regulator
2.17	Self Consumption	< 5 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
<b>3</b>	<b>Mechanical</b>	
3.1	Pole, Structure and battery Box	GI pole 4.5Mt height with two sections. Bottom 65 NB & 55NB with Class B with silver ash spray paint final coating. Suitable panel mounting structure for 75 watts module, battery BOX suitable to house 80 Ah VRLA Battery and charge controller.
3.2	Enclosure	Pole mounting with screws & CF Lamp in base up configuration
3.3	Enclosure Dimensions (Over all)	440x 150x 115 mm
3.4	Case	Injection Molded Engineering Nylon back. Fire Retardant grade.
3.5	Light Diffuser	UV stabilized / Poly carbonate type front cover.
3.6	Reflector	Highly reflective anodized aluminum
3.7	Color (case)	Black color
3.8	Ingress Protection	IP 54
<b>4</b>	<b>Accessories</b>	
4.1	Cable connector	Suitable screw type 2 pin connectors provided for connection of array & battery cables.
4.2	Fuse	Spare fuse - 1 no of suitable type and rating

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