

# SOLAR HOME LIGHT



Solar Home System is a user friendly and effective light source using the sunlight to provide reliable and cost effective electricity. The Solar Home System is an ideal light source and a viable solution for household electrification in rural areas.

The solar Home System comprises of a rugged PV module for charging the battery, (a flooded Tubular type / VRLA Battery to store the electric charge), a charge controller for the safe charging and discharging of the battery, 2/3 light units (Luminaries) with an efficient inverter and 7/9/11 W Compact Florescent Lamp and DC Fan.

## FEATURES

- Elegant and efficient luminaries
- Micro controller based electronic circuit
- All necessary protection
- UV stabilised acrylic light diffuser
- Non-polluting
- Available in different configurations
- Safe & easy to install

Model	Lamp	DC Fan	Battery	SPV Module	Luminaries	Duration
SGH9/1220	9W	-	12V20Ah	SGM1220	1	3-4Hrs.
SGH9/1237	9W	-	12V40Ah	SGM1237	2	3-4Hrs.
SGH9F/1237	9W	<16W	12V40Ah	SGM1237	1	1-2Hrs.
SGH9F/1274	9W	<16W	12V75Ah	SGM1274	2	2-3Hrs.
SGH9/1274	9W	-	12V75Ah	SGM1274	4	3-4Hrs.

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## Technical Specification of Solar Home Lighting Systems

SGH9/1220	SGH9/1237	SGH9F/1237	SGH9F/1274	SGH9/1274
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### General

Application	Solar Powered Home Lighting System				
Use	Indoor				
Operating Temperature	0 to 50°C				
Duty Cycle	~4 Hrs	~4 Hrs	1-2 Hrs	2-3 Hrs	~4 Hrs
Number of days of autonomy	3 days				

### System Components

<b>Module</b>					
Module Type	Mono / Poly Crystalline Silicon				
Open circuit voltage	>/=21V				
Module power @ 16.4V @STC	18/20Wp	37/40Wp	2x37Wp or 74Wp		
Module mounting frame	Provided				
Material	Galvanized Iron Frame				
<b>Battery</b>					
Type	Flooded Lead Acid (Tubular) or VRLA SMF Lead Acid				
Battery voltage	12V				
Battery capacity @ C/10	20Ah	40Ah	75Ah		
Battery Box	Provided				
Material	MS sheet, Powder coated / Galvanized finish				
<b>Luminary</b>					
Lamp Type	CFL 4 pin				
Number of Luminary	1	2	1	2	4
Lamp wattage	9W				
Rated light output (lumens)	600±5%				
Lamp colour temperature	5200K (Day light)				
Light coverage	>180°				
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 efficiency	>82%				
DC component at the output voltage	Nil				
Lamp starting	Soft start (Pre-heated)				
Preheating time	<5 seconds				
Power consumption @ 12V DC Input	9.9W ±10%				
Fixing	Wall mounting with screws				
<b>DC Fan</b>					
No. of Fan	-	-	1	-	
Rated Power	</=15W				
Nominal Voltage	12V				
<b>Charge Controller</b>					
Charge controller type	Series pulsed width, two step charging				
Charging current	3A Max.		6A Max.		6A Max.
Load current	3A Max.	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				
<b>Connecting Wires</b>					
Module to charge controller	1 mm <sup>2</sup> wire - 5 mtrs		2.5 mm <sup>2</sup> wire - 5 mtrs		
Battery to charge controller	1.5 mm <sup>2</sup> wire – 0.4/0.65 mtrs		2.5 mm <sup>2</sup> wire – 0.4/0.65 mtrs		
Luminary to charge controller	1 mm <sup>2</sup> wire - 5 mtrs.		2.5 mm <sup>2</sup> wire - 0.2 mtrs.		

Specification & other details mentioned in this sheet subject to change without any prior notice. Please feel free to contact us at the following address. We assure you our best service always.



## SUNGRACE ENERGY SOLUTIONS PVT LTD.

Head Office: F-4, Road No.12, IDA Nacharam, Hyderabad-500 076  
Ph: +91 40 271578 93/94/95 Fax: +91 40 27157893

Regional Office: 24G, Tagore Hill Road, Morabadi, Ranchi – 834 008  
Ph: +91 651 2551871 Fax: +91 651 2551871

www.sungrace.net

email.admin@sungrace.net