



### Product Introduction

Phocos proudly offers solar home system (SHS) kits to bring compact, autonomous power to remote locations. SHS kits are designed for easy operation and selection, with three different kit wattage options available to meet various energy and budget requirements. Each kit converts the sun's energy into electricity, to power various DC electrical appliances (from lights to fans to mobile phone chargers). Phocos developed these SHS kits to offer an economical solution that provides reliable, safe, quiet, and maintenance-free off-grid power.

The eco-friendly SHS kit series has technology that increases each kit's charging efficiency for optimum performance. Using energy dense Lithium technology (safest chemistry LFP), combined with energy efficient DC LED lighting, Phocos has created an innovative packaged solution to perform at the highest standards. The SHS series kits also include features like LED indicators, battery status information and protection functions to help maximize the life of the equipment.

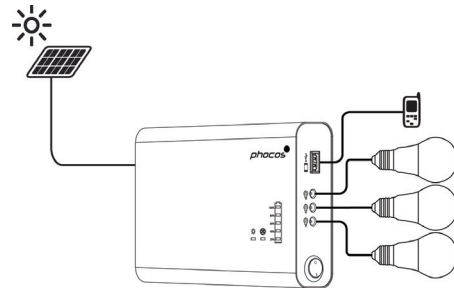
### Product Features

- Compact, portable, lightweight
- Charges 12.8 V battery (included)
- LFP battery offers long cycle life, is safe and energy dense
- USB output to charge mobile devices
- MPPT technology (automatically maximizes power output)
- Battery status through LEDs (simple indicator lights)
- Maintenance-free
- Efficient DC LED lighting
- Regulates current and voltage for longer battery life
- Low-voltage disconnect features (LVD)
- Overcharge and discharge protection
- Load short circuit/ overload protection
- Quiet, reliable DC power

### Accessories Included in Kits

- Solar panel (1 pc) (5 W, 10 W or 20 W)
- Charge controller/ LFP (LiFePO4) battery (1 pc)
- DC LED lamps (3 pcs) (1 W, 2 W or 3 W)
- Panel cable (1 pc)
- E-27 lamp holder assembly with switch (3 pcs)
- Mobile charging adapter (1 pc)

### Technical Drawing



### Technical Data

Type	SHS-5W	SHS-10W	SHS-20W
Charging Type	Maximum Power Point Tracking (MPPT)		
System Voltage	12.8 V		
Solar Input Power	5 Wp	10 Wp	20 Wp
DC LED Lamps	1 W	2 W	3 W
Open Circuit Voltage	21 V		
Battery Capacity (approx.)	20 Wh	40 Wh	75 Wh
Battery Protection	HVD and LVD, inbuilt BMS circuit		
Overvoltage Protection	14.6 V ± 0.1 V		
Undervoltage Protection	11.0 V ± 0.1 V		
Max Charging Current	1000 mA	1500 mA	3000 mA
Max Discharging Current	1500 mA	2600 mA	5000 mA
Estimated Run Time	1 lamp: 15 h*, 2 lamps: 8 h*, 3 lamps: 5 h*		
Electronic Protection	PV reverse polarity, reverse current flow at night, surge & transient protection, over current, battery high and low voltage protection, battery short circuit.		
LED Indicators	Green: solar charging; Yellow: battery SOC; Red: fault indication		
Ambient Temperature	0 to 50 °C while charging, -20 to 55 °C while discharging		
Load Terminals	DC jack 6.5 mm, 3 output terminals		
Battery Type	LiFePO4		
USB Port	USB type A, 5.2 V, 1000 mA		
Dimensions (mm/in) (WxHxD)	375 x 200 x 130/ 14.8 x 7.9 x 5.1**	375 x 200 x 130/ 14.8 x 7.9 x 5.1 (without panel)	
Weight	2.57 kg / 5.66 lbs**	2.30 kg / 5.07 lbs	2.63 kg / 5.80 lbs
Ingress Protection	IP20		
Warranty	2 years		

\*Conditions apply: back up time varies and depends upon the ambient temperature and operating conditions. The run time estimate does not account for mobile phone charging.

\*\*With panel inside