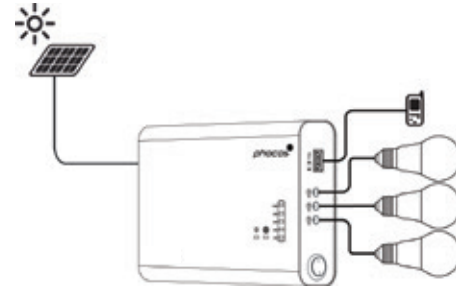




Technical Drawing



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 (one of the safest chemistries: LiFePO4), 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 (integrated)
- LiFePO4 battery offers long cycle life, is safe and energy dense
- USB charging port transforms the ECO Pico into a Powerbank
- MPPT technology (automatically maximizes power output)
- Electronic protection: PV reverse polarity, reverse current flow at night, surge & transient protection, over current, battery high and low voltage protection, battery short circuit
- Maintenance-free
- Efficient DC LED lighting
- Regulates current and voltage for longer battery life
- Low-voltage disconnect features (LVD)
- Load short circuit/ overload protection
- Battery protection: HVD and LVD, inbuilt BMS circuit
- Battery status through LEDs

Accessories Included in Kits

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

Technical Data

Type	SHS-5W	SHS-10W	SHS-20W
Charging Type	Maximum Power Point Tracking (MPPT)		
System Voltage	12.8 V		
Max. Charge Current	1000 mA	1500 mA	3000 mA
Max. Discharge Current	1500 mA	2600 mA	5000 mA
Operation Runtime	1 lamp: 15 h*, 2 lamps: 8 h*, 3 lamps: 5 h*		
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
Overvoltage Protection	14.6 V ± 0.1 V		
Undervoltage Protection	11.0 V ± 0.1 V		
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		
Battery Type	LiFePO4		
USB Charging Port	5.2 V, 1000 mA		
Load Terminals	DC jack 6.5 mm, 3 output terminals		
Dimensions (WxHxD)	375 x 200 x 130 mm/ 14.8 x 7.9 x 5.1 in**	375 x 200 x 130 mm/ 14.8 x 7.9 x 5.1 in (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 PV panel inside