

# E-20-06\_LP112 Solar Home System

E-20-06\_LP112

Shenzhen Poweroak Newener Co., Ltd

Verify online:

<https://data.verasol.org/products/sek/po-e20>

Valid until: June 30, 2024

Results based on test procedures detailed in IEC TS 62257-9-5 and IEC TS 62257-9-8



Meets the requirements in IEC TS 62257-9-8:2020 for Size A Kits



Mobile charging

**PAYG**

Pay-As-You-Go option available

3

Light point(s)



Plug-and-play



## WARRANTY INFORMATION

A 2- year warranty covering defects in materials and workmanship for battery, PV module, and lights and a 1-year warranty for all other included electrical appliances.

## PERFORMANCE DETAILS

VeraSol Certified?	Included in Kit?	Appliance <sup>a</sup>	Description	Run time after a typical day of solar charging (assuming 5kWh/m <sup>2</sup> /day)	
				Used alone <sup>b</sup>	Used in combination <sup>c</sup>
yes	included	Main lighting unit	3 light points on high totaling 650 lumens and 5 W	2.6 hours	2.6 hours
yes	not included	Radio	portable radio (Li-ion battery: 1 Ah, 3.7 V) with rated power consumption of 0.32 W while in use.	44 hours	2.1 hours
no	not included	Mobile phone	Smart phone (5.7 Wh battery)	2.5 full charge(s)	0.71 full charge(s)

Available daily electrical energy <sup>e</sup> (Wh/day)	17
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Performance measure	Brightness setting: Both 1.2 W lamps and 2.5 W lamp on high
Lighting full battery run time <sup>d</sup> for main unit (hours)	2.6
Total lighting service (lumen-hours/solar-day) (includes the both main lighting unit and any lights with internal batteries included with the product)	1700

<sup>a</sup> Only included appliances were tested. Run times and power ratings for appliances sold separately come from manufacturer ratings or standard estimates.

<sup>b</sup> Without any other loads used during the run time

<sup>c</sup> Based on an example use profile with all of the appliances listed in the "Used in combination" column used simultaneously.

<sup>d</sup> Lighting full battery run time estimates do not account for mobile phone charging or other auxiliary loads; the run time is defined as the time until the output is 70% of the initial, stabilized output.

## LIGHTING DETAILS



Lamp name	Number of lamps	Number of settings	Setting	Light output (lm)	Lumen efficacy <sup>e</sup> (lm/W)	CRI <sup>f</sup>	CCT <sup>g</sup>	Distribution type	Lumen maintenance <sup>h</sup>
1.2 W	2	3	High	150	150	70	6500	Wide	100%
2.5 W	1	3	High	350	350	81	5700	Wide	100%

<sup>e</sup> Lumen efficacy is the power consumption at a light point during the light output test.

<sup>f</sup> Color Rendering Index. An index of 100 is equivalent to viewing objects in daylight; above 80 is considered good.

<sup>g</sup> Correlated Color Temperature in degrees Kelvin. Describes color appearance as warm (2700-3000 K), cool (3000-5000 K), or daylight (>5000 K)

<sup>h</sup> Percent of the original light output that remains after 2,000 hours of run time

SPECIAL FEATURES		
<b>PAYG</b>	★ <b>Pay-As-You-Go enabled</b>	
PORTS		
2	USB 2.0 type A  Mobile phones and radios can be charged. Phone adapter is included.	
4	Barrel jack  12 V ports available to charge devices and power appliances and light points.	
DURABILITY		
Overall durability and workmanship	Pass	
Durability tests passed	Switch test, Strain relief test, Physical ingress protection, PV durability tests	
Level of water protection	Main unit	Water ingress protection not tested, meant for indoor use only.
	PV module	Has protection from permanent outdoor exposure
SOLAR DETAILS		
PV module type	Polycrystalline silicon	
PV maximum power	6.8 watts	
MAIN UNIT BATTERY DETAILS		
Battery replaceability	Not easily replaceable with common tools.	
Battery chemistry	Lithium iron phosphate	
Specific Li-ion battery chemistry	lithium iron phosphate	
Battery package type	18650	
Battery capacity	3 Ah	
Battery nominal voltage	6.4 V	
Battery status indication	Two indicators for battery status.	
MARKS AND CERTIFICATIONS		
Factory certification	ISO 14001:2015, ISO 45001:2018, ISO 9001:2015	
PRODUCT DETAILS		
Manufacturer name	Shenzhen Poweroak Newener Co., Ltd	
Product name	E-20-06_LP112 Solar Home System	
Product model / ID number	E-20-06_LP112	
Contact information	Jack_Sun@poweroak.net	
Website	<a href="http://www.poweroak.solar/eb150">http://www.poweroak.solar/eb150</a>	
Dimensions (entire product in package)	Multiple packages. Contact manufacturer for more information.	
Mass	n/a	
SSS INFORMATION		
Specs sheet expiration date	June 30, 2024	
Revision	2024.02	