

# Spark 10W

SE-10

Salpha Energy Ltd.

Verify online:

<https://data.verasol.org/products/sek/sal-sf310>

Valid until: October 31, 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

6

Light point(s)



Plug-and-play



## WARRANTY INFORMATION

A 2-year warranty covering manufacturing defects in the system

## 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	LED bulbs, reading light (integrated into main unit)	4 light points and 1 integrated light point totaling 810 lumens and 7.8 W power	4.4 hours	3.9 hours
yes	included	Torch (integrated in main unit)	1 integrated light point (torch) totaling 53 lumens and 0.93 W power	39 hours	--
yes	included	Radio (integrated into main unit)	Integrated battery with a power consumption of 0.52 W while in-use	75 hours	2.9 hours
no	not included	Mobile phone	Basic phone (3.7 Wh battery)	7.4 full charge(s)	1 full charge(s)

Available daily electrical energy <sup>c</sup> (Wh/day)	37
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Performance measure	Brightness setting: 4 LED bulbs on "Brighter", integrated reading light on "On"
Lighting full battery run time <sup>d</sup> for main unit (hours)	4.4
Total lighting service (lumen-hours/solar-day) (includes the both main lighting unit and any lights with internal batteries included with the product)	3600

<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>
LED bulbs	4	2	Brightest	190	110	85	6290	Wide	100%
Integrated reading light	1	1	On	64	64	76	5330	Wide	100%
Integrated torch	1	1	On	53	57	74	8190	Narrow	not tested

<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

PORTS		
1	USB 2.0 type A	 Mobile phones can be charged. Adapters are included.
4	Barrel jack	 6.4 V ports available to power light points.
DURABILITY		
Overall durability and workmanship		Pass
Durability tests passed		Switch test, Drop test, Strain relief test, Physical ingress protection, PV durability tests
Level of water protection	Main Unit	Has protection from occasional rain; met with appropriate warning label
	PV module	Has protection from permanent outdoor exposure
	LED bulb	Water ingress protection not tested, meant for indoor use only.
SOLAR DETAILS		
PV module type		Polycrystalline silicon
PV maximum power		11 watts
MAIN UNIT BATTERY DETAILS		
Battery replaceability		Easily replaceable with common tools; however, the warranty is void if product is opened.
Battery chemistry		Lithium iron phosphate
Battery package type		32650
Battery capacity		6 Ah
Battery nominal voltage		6.4 V
Battery status/ other indicator lights		Four indicators for PV charging and battery status.
PRODUCT DETAILS		
Manufacturer name		Salpha Energy Ltd.
Product name		Spark 10W
Product model / ID number		SE-10
Contact information		sandra@salphaenergy.com
Website		<a href="https://salphaenergy.com/">https://salphaenergy.com/</a>
Co-brand of		SF-310 Solar Lighting System, Qingdao Sunshine New Energy Co., Ltd
Dimensions (entire product in package)		33 x 22 x 13 cm
Mass		2650 g
SSS INFORMATION		
Specs sheet expiration date		October 31, 2024
Revision		2022.08