

Flex 3e Solar Home System

Flex 3e
Brand name: Roofstar

Verify online:
<https://data.verasol.org/products/sek/re-flex3e>
Valid until: May 31, 2026

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 B kits



Mobile charging

4

Light point(s)



Plug-and-play



WARRANTY INFORMATION

A 2-year warranty covering manufacturing defects in the system, a 2-year warranty for the torch, and a 1-year warranty for the radio.

PERFORMANCE DETAILS

				Run time after a typical day of solar charging (assuming 5kWh/m ² /day)	
VeraSol Certified?	Included in Kit?	Appliance ^a	Description	Used alone ^b	Used in combination ^c
yes	included	Main lighting unit	3 light points on high totalling 780 lumens and 7.5 W power	4.2 hours	3.2 hours
yes	included	Torch	30 lumen torch (LiFePO4 battery: 550 mAh, 3.3 V)	43 hours	3.8 hours
yes	included	Radio	Portable radio (Li-ion battery: 1 Ah, 3.7 V), with a power consumption of 0.5 W while in use	14 hours	2.4 hours
no	not included	Mobile phone	Basic phone (3.7 Wh battery)	3.3 full charge(s)	0.7 full charge(s)

Available daily electrical energy ^e (Wh/day)	29
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Performance measure	Brightness setting: 3 lights "on"
Lighting full battery run time ^d for main unit (hours)	5.4
Lighting full battery run time of the torch powered by torch battery (hours)	8.1
Total lighting service (lumen-hours/solar-day) (includes the both main lighting unit and any lights with internal batteries included with the product)	3280

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

^b Without any other loads used during the run time

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

^d 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)	Power consumption (W)	Lumen efficacy ^e (lm/W)	CRI ^f	CCT ^g	Distribution type	Lumen maintenance ^h
LED lantern	3	2	high	260	2.5	100	87	6900	Wide	100%
Torch	1	1	on	30	0.25	100	81	6800	Narrow	100%

^e Lumen efficacy is the power consumption at a light point during the light output test.

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

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

^h Percent of the original light output that remains after 2,000 hours of run time

SPECIAL FEATURES		
Remote		Torch acts as wireless remote control to turn lamps on and off
PORTS		
1	USB 2.0 type A	 Mobile phones, torches, radios can be charged. Adapters are included.
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	LED lantern	Has protection from frequent rain; met IPX4
	PV modules	Have protection from permanent outdoor exposure
	Torch	Has protection from occasional rain; met with appropriate warning label
	Radio	Has protection from occasional rain; met with appropriate warning label
SOLAR DETAILS		
PV module type		Polycrystalline silicon
PV maximum power		11 watts (one 3 W and one 8 W PV module)
PV rated power		11 watts
8 W PV open-circuit voltage (V _{OC})		7.48 volts
3 W PV open-circuit voltage (V _{OC})		7.34 volts
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		26700
Battery capacity		12.6 Ah
Battery nominal voltage		3.2 V
Battery status / other indicator lights		Four LEDS indicate battery state of charge. Three LED indicators show the state of charge for the torch.
PRODUCT DETAILS		
Company name		Roofstar Technology Company Limited
Brand Name		Roofstar
Product name		Flex 3e Solar Home System
Product model / ID number		Flex 3e
Contact information		zelalem@roofstartechnology.com
Website		www.roofstartechnology.com
Dimensions (entire product in package)		36.4 x 19 x 12 cm
Mass		2490 g
SSS INFORMATION		
Specs sheet expiration date		May 31, 2026
Revision		2024.10