

bPower50 Solar Home System

PW-B05  
Bboxx Ltd

Verify online:  
<https://data.verasol.org/products/sek/bb-home>  
Valid until: June 30, 2025

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

PAYG

Pay-As-You-Go option available

6

Light point(s)



Plug-and-play



WARRANTY INFORMATION

A 2-year warranty covering manufacturing defects in the control unit, PV module, and lights and a 1-year warranty for all other accessories.

PERFORMANCE DETAILS

				Run time after a typical day of solar charging (assuming 5kWh/m <sup>2</sup> /day)	
VeraSol Certified?	Included in Kit?	Appliance <sup>a</sup>	Description	Used alone <sup>b</sup>	Used in combination <sup>c</sup>
yes	included	Main lighting unit	4 bulbs on high totaling 720 lumens and 5.6 W power, and 1 tubelight totaling 230 lumens and 1.6 W power	21 hours	--
yes	included	Torch	180 lm torch (Li-ion battery: 2.6 Ah, 3.7 V)	78 hours	6.2 hours
yes	included	Television	24" diagonal television (9.6 W power consumption while in use)	18 hours	3 hours
yes	included	Radio	Portable radio (Li-ion battery: 2.4 Ah, 3.7 V), with a power consumption of 3.4 W while in use	150 hours	4.6 hours
no	not included	Mobile phone	Smart phone (5.7 Wh battery)	18 full charge(s)	1.5 full charge(s)
no	not included	Subwoofer	Speaker / sound system (20 W power consumption while in use)	12 hours	--

Available daily electrical energy <sup>c</sup> (Wh/day)	160
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Performance measure	Brightness setting: high
Lighting full battery run time <sup>d</sup> for main unit (hours)	21
Lighting full battery run time of the torch powered by torch battery (hours)	69
Total lighting service (lumen-hours/solar-day) (includes the both main lighting unit and any lights with internal batteries included with the product)	18100

<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 lamp	4	3	high	180	130	82	6000	Wide	99%
Tube light	1	3	high	230	150	81	6500	Wide	100%
Torch	1	3	high	180	130	83	6200	Wide	98%

<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		
2	USB 2.0 type A	 Mobile phone and portable light can be charged. Adapters are included.
6	Barrel jack	 12 V ports available to power lights, TV, and charge devices.
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	Water ingress protection not tested, meant for indoor use only.
	PV module	Has protection from permanent outdoor exposure
	Optimized TV 24"	Water ingress protection not tested, meant for indoor use only.
	tube light	Water ingress protection not tested, meant for indoor use only.
	LED lamp	Water ingress protection not tested, meant for indoor use only.
	Radio	Has protection from occasional rain; met with appropriate warning label
	Torch	Has protection from occasional rain; met with appropriate warning label
SOLAR DETAILS		
PV module type		Polycrystalline silicon
PV maximum power		51 watts
MAIN UNIT BATTERY DETAILS		
Battery replaceability		Easily replaceable with common tools.
Battery chemistry		Lithium iron phosphate
Specific Li-ion battery chemistry		lithium iron phosphate
Battery package type		16 (4S4P) x 26650
Battery capacity		13.2 Ah
Battery nominal voltage		12.8 V
Battery status/ other indicator lights		5 indicators to denote product operation condition
PRODUCT DETAILS		
Manufacturer name		Bboxx Ltd
Product name		bPower50 Solar Home System
Product model / ID number		PW-B05
Contact information		c.baker-brian@bboxx.com
Website		www.bboxx.com
Dimensions (entire product in package)		Multiple packages. Contact manufacturer for more information.
Mass		n/a
SSS INFORMATION		
Specs sheet expiration date		June 30, 2025
Revision		2025.06