10 W Solar Home System

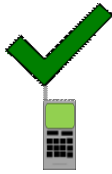**TCSH-010**
Brand name: Acultra
Previously tested under the brand name "Zeitdas"
Results based on test procedures detailed in IEC TS 62257-9-5:2018 and IEC TS 62257-9-8:2020

Verify online:
https://data.verasol.org/products/sek/wt-10wshs
Valid until: May 31, 2026

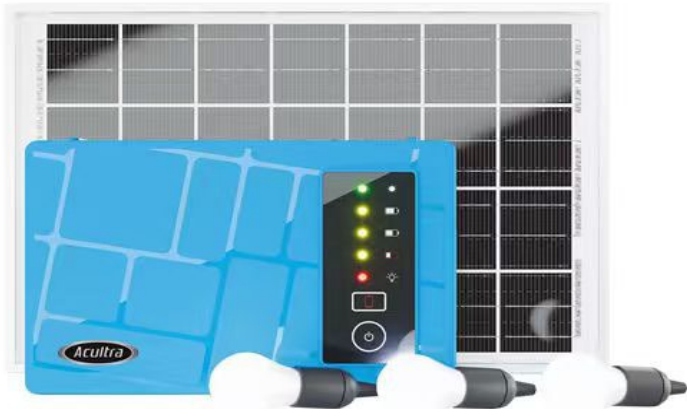✓ **Meets the Requirements in IEC TS 62257-9-8:2020 for Size A kits**

Mobile charging

3 **Light point(s)**

Plug-and-play

WARRANTY INFORMATION

A 3-year warranty covering manufacturing defects in the system and a 1-year warranty for the the optional accessories.

PERFORMANCE DETAILS

VeraSol Certified?	Included in kit?	Appliance[a]	Description	Run time after a typical day of solar charging (assuming 5kWh/m²/day)	
				Used alone[b]	Used in combination[c]
yes	included	Main lighting unit	3 light points on "On" totaling 640 lumens and 5.4 W power	8.5 hours	3.4 hours
no	not included	Radio	Portable radio (Li-ion battery: 1 Ah, 3.7 V) with power consumption of 0.5 W while in use	68 hours	2.6 hours
no	not included	Torch	Torch (0.3 W power, 2 Wh battery)	110 hours	3.4 hours
no	not included	Mobile phone	Basic phone (3.7 Wh battery)	9.2 full charge(s)	--
no	not included	Smartphone	Smart phone (5.7 Wh battery)	6 full charge(s)	0.87 full charge(s)
no	not included	Fan	USB fan (5 W power, 3.7 Wh battery)	9.3 hours	4.3 hours
no	not included	Tablet	Tablet computer (15 Wh battery)	2.2 hours	--
no	not included	Camera	Camera (0.5 W power, 4.5 Wh battery)	68 hours	--

Available daily electrical energy [Wh/day]	46

Performance measure	Brightness setting: 3 lights on "On"
Lighting full battery run time for main unit [hours]	8.5
Total lighting service (lumen-hours/solar-day) (includes the both main lighting unit and any lights with internal batteries included with the product)	5440

[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.
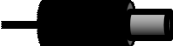
LIGHTING DETAILS

Lamp name	Number of lamps	Number of settings	Setting name	Light output [lm]	Power Consumption [W]	Lumen efficacy[e] [lm/W]	CRI[f]	CCT[g]	Lumen maintenance[h]
LED lamp	3	1	On	210	1.8	120	80	6800	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 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.

PORTS

2	**USB 2.0 type A**		Mobile phones, torches, and other non-lighting appliances can be charged. Adapters included.
4	**Barrel jack**		12.8 V ports available to power 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
	Lamp	Water ingress protection not tested, meant for indoor use only.

SOLAR DETAILS

PV Module Type	Monocrystalline silicon
PV Maximum Power	14 W
PV Rated Power	10 W
PV Open-Circuit Voltage (V_{OC})	19.1 V

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	4x 26700
Battery Capacity (tested)	3.9 Ah
Battery Capacity (rated)	4 Ah
Battery Nominal Voltage	12.8 V
Battery status / other indicator lights	Three indicators for battery level.

PRODUCT DETAILS

Company Name (full)	Wuxi Taichang Electronic Co., Ltd.
Company Name ("brand")	Acultra
Product Name	10 W Solar Home System
Product Model or ID Number	TCSH-010
Company Contact Information	chenguoying@tcpowertec.com
Company Website	http://www.acultra.com/
Mass	2340 g

SSS INFORMATION

Expiration Date	May 31, 2026
Revision	2025.08