

Litio Solar: SHS Solar Home System Kit



The Litio Solar Home System Kit combines long life products with easy Plug & Play installation. The Lithium Battery System`s built-in solar battery PWM charger, battery monitoring system and load output control optimize the conditions for a long battery lifespan. The advanced LCD display provides the user with valuable and precise system information. The charge indicator shows the remaining operation time calculation/display and can help the user to manage his energy consumption. The USB outlet allows many 5V USB devices to be recharged or operated. Common 12V loads can be operated by the system.

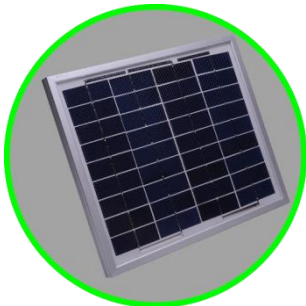
The Sunflower LED Lamp`s unique heat sink design and high frequency LED driver and included excess-temperature protection (dimming) as well as the absence of electrolytic capacitors make sure the lamp can last for very long time, even in harsh environments. The built-in 5m wire with switch and plug for an easy installation makes the system setup very simple. The optional extra extension wires make the system highly adjustable to different distances between the lamps place of use and the Litio System.

The Solar Panels power is optimized for recharging the Lithium Battery. In order to recharge the battery faster or in case of higher energy demands, it is possible to add more solar power to the system; multiple Kits can be combined and recharged together. As multiple Kits can be combined and recharged together it is easy to expand existing systems on request.



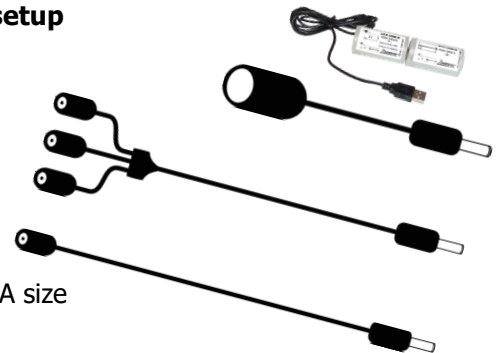
SHS Key features and optional accessories

- **Very Long-Life Lithium Iron Phosphate Battery System >3000 full cycles**
- 12.8V: can operate standard 12V loads
- Rugged ABS housing
- **256Wh to 640Wh capacity available**
- PWM-Charge Controller
- LCD-Display with remaining load operation time
- Battery Management System integrated
- Single battery cell monitoring
- Low-battery warning
- System paralleling (load and panel side)
- **Built in 1 year Data-Logger** (standard)
- **Pay As You Go Ready with Luzhy Platform**
- **2G connectivity, remote monitoring with Luzhy platform (option)**
- LED Lamps
- Sunflower LED **long life lamp** >60,000h (L70)
- High performance heatsink
- Excess temperature protection dimming
- Excellent performance in high altitude and hot environments
- 280lm/420lm/560lm available
- **Constant lumen output** and constant Power during battery discharge
- **Mini Sunflower 17lm (5V and 12V Versions)**
- Solar Panel, various power possible
- Standard 12V panel can be applied (any power)



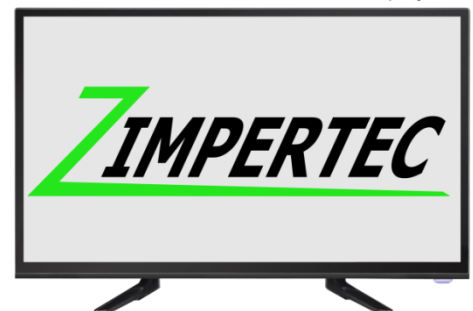
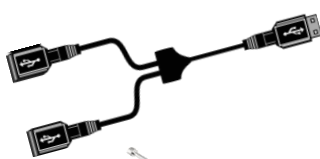
Wiring options for flexible System setup

- Extension wires
- Distribution wires
- Cigar lighter socket adapter
- USB distributor



Optional Accessories:

- TV, FM/AM rechargeable Radio
- NiMH battery charger for AA and AAA size batteries
- Laptop charger
- Radio battery adapter



Solar Home System Kit SHS50-C001-Household 6 Lamps



	Description:	charging current	load current	Rating:			Content:
Battery System SHS	Litio SHS with integrated PWMcharger and LCD display. Load Plug and Play feature	16 A	20 A	12,8V	50,0 Ah	640 Wh	1 pc

Description of optional Light Points and other Loads:				Individual Lumen Output:		Content:
TV/Media Lighting	Light:	Sunflower Equipped with 6m wire and switch	2,0 W	280 lm		4 pc
	Light:	Sunflower Equipped with 9m wire and switch	3,0 W	420 lm		
	Load:	Radio AM/FM	0,50 W	Individual full battery runtime: 1280 hours		1 pc
	Load:	TV-24"	14,00 W	Individual full battery runtime: 46 hours		1 pc
Fan Fridge	Load:	Fridge 50L Domestic use	60,00 W	171 Wh/d @32°C		1 pc
	Load:	Desk Fan	3,00 W	Individual full battery runtime: 213,3 hours		
	Load:	Mobile Phone charger	5,00 W	Individual full battery runtime: 128,0 hours		1 pc
	total light point power					
total load power (incl. Light points)						98,50 W

All light points lumen output:						2160 lm
All light points run time after typical day of solar charging						45,71 hours
assume solar day: 5,0 KWh/m2/day						640,0 Wh/day
extra Energy during day time: →						(160 Wh/day)
All lighting points + loads full battery runtime:						6,5 hours
All lighting points full battery runtime:						45,7 hours

Solar	Description:	Rating:	Content:
	Polycrystalline Silicon Solar Panel Equipped with 8m wire	120 Wp	2 pc = 240 Wp
	charging current max.	14,7 A	-

Accessory	Description:	Details	Content:
	Mobile phone adapter	USB wire, 1.5m Adapters: Nokia8210, Nokia 6101, Micro USB, Mini USB	1 pc
	Load distribution wire	Length: 3m, 3 outputs	2 pc
	Load extension wire	Length: 5m	2 pc
	SAE connector for fridge	Length: 1,5m	1 pc
	Panel Wire MC4 6 mm ² Set	Length: 8m	1 pc
	Solar Panel Branch Connector 2 set		1 pc

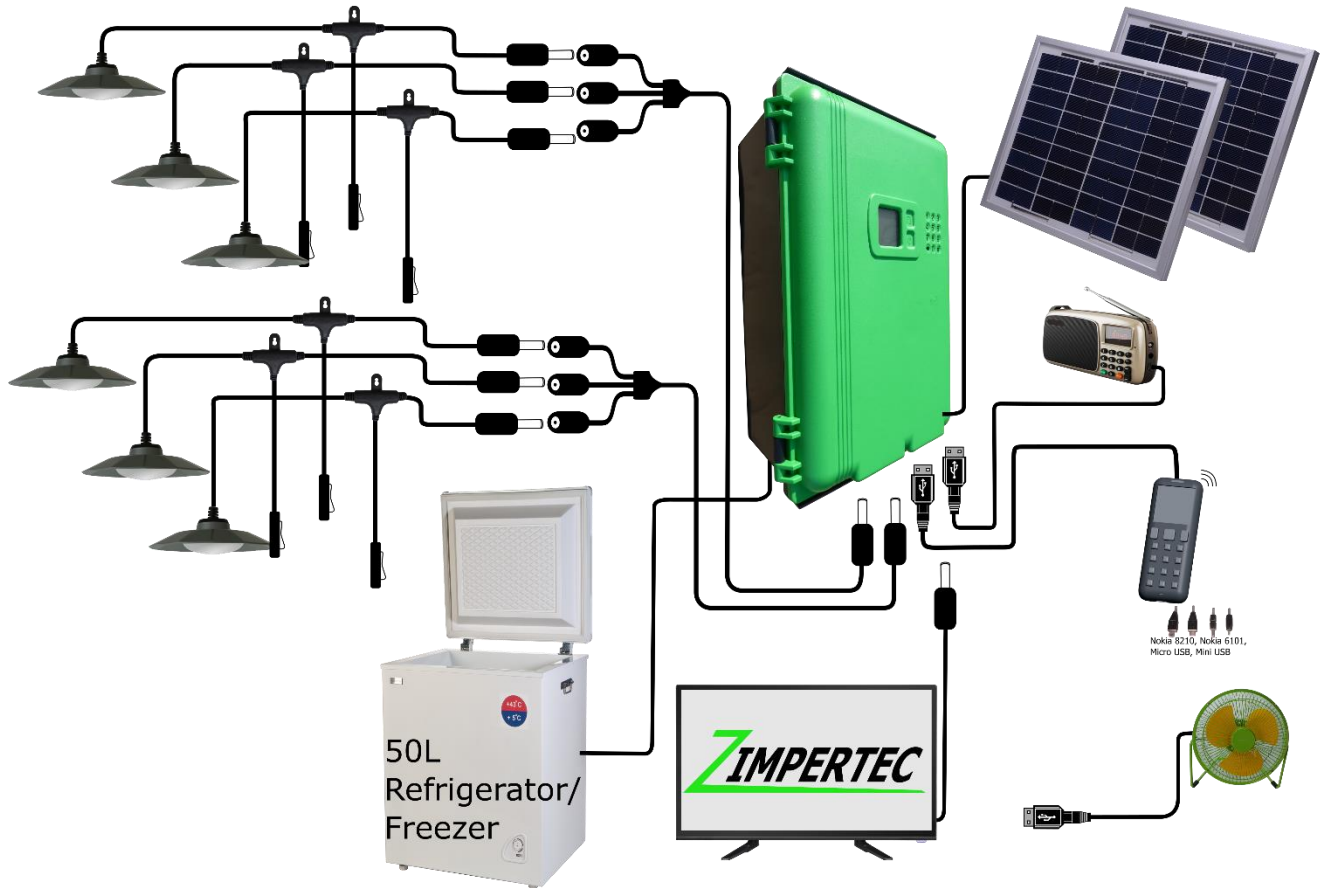
Values are calculated and can variate according environment conditions

Solar Home System Kit SHS50-C001-Household 6 Lamps



Product Warranty: 3 years on materials and manufacturing defects

Operation ambient temperature -20 to +50°C; All values at 25°C ambient temperature



Nokia 8210, Nokia 6101,
Micro USB, Mini USB

Solar Home System Kit

SHS50-C002-Restaurant/ Farm

5 Lamps



	Description:	charging current	load current	Rating:			Content:
Battery System SHS	Litio SHS with integrated PWMcharger and LCD display. Load Plug and Play feature	16 A	20 A	12,8 V	50,0 Ah	640 Wh	1 pc

Description of optional Light Points and other Loads:				Individual Lumen Output:		Content:
Lights	Light:	Sunflower	2,0 W	280 lm		5 pc
		Equipped with 5m wire and switch		Individual full battery runtime:	320 hours	
TV/ Media	Load:	Radio AM/FM	0,50 W			1 pc
				Individual full battery runtime:	1280 hours	
Fridge/ Freezer	Load:	TV-24"	14,00 W			1 pc
				Individual full battery runtime:	46 hours	
Fridge/ Freezer	Load:	Fridge 160L	60,00 W	350Wh/d @32°C		1 pc
		Commercial use		Individual full battery runtime:	1,8 days	
	Load:			Individual full battery runtime:	0,0 hours	-
	Load:	Mobile Phone charging	5,00 W			1 pc
				Individual full battery runtime:	128,0 hours	
		total light point power				10,00 W
		total load power (incl. Light points)				91,50 W

All light points lumen output:					1600 lm
All light points run time after typical day of solar charging					64,00 hours
assume solar day: 5,0 KWh/m²/day					640,0 Wh/day
extra Energy during day time: →					(290 Wh/day)
All lighting points + loads full battery runtime:					7,0 hours
All lighting points full battery runtime:					64,0 hours

	Description:	Rating:	Content:
Solar	Polycrystalline Silicon Solar Panel Equipped with 8m wire	120 Wp	3 pc = 360 Wp
	charging current max.	22,0 A	-

	Description:	Details	Content:
Accessory	Mobile phone adapter	USB wire, 1.5m Adapters: Nokia8210, Nokia 6101, Micro USB, Mini USB	1 pc
	Load distribution wire	Length: 3m, 3 outputs	1 pc
	Load extension wire	Length: 5m	1 pc
	SAE connector for fridge	Length: 1,5m	1 pc
	Panel Wire MC4 6 mm ² Set	Length: 8m	1 pc
	Solar Panel Branch Connector 3		1 pc

Values are calculated and can variate according environment conditions

Product Warranty: 3 years on materials and manufacturing defects

Operation ambient temperature -20 to +50°C; All values at 25°C ambient temperature

Solar Home System Kit SHS50-C002-Restaurant/ Farm 5 Lamps

