

Litio Solar: SHS Solar Home System Kit

V 3.0 SHS C3



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.

Solar Home System Kit





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 in1 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-C3A



Description:	charging current	load current	Rating:			Content:
Litio SHS with integrated PWM charger and LCD display. Load Plug and Play features	20 A	20 A	12.8 V	50.0 Ah	640 Wh	1 pc

escriptio	n of optional Light Points	and other L	oads:	Lumen Out	out:		Content:
Liabti	Sunflower	3 W	10.0 h	420 lm			4 no
Light:	Equipped with 2*5m + 2*9m wire and	wire and switch 120 Wh Individual full battery runtime: 2		213 hours		4 pc	
Loodi	Radio AM/FM	0.50 W	10.0 h				1 no
Load:			5 Wh	Individual full battery runtime:	1280 hours		1 pc
l a a d .	Fridge 50L	60.00 W		285Wh/d @32°C			1
Load:	Commercial use			Individual full battery runtime: 2.2 days			1 pc
Load:	Mobile Phone charging	5.00 W	1.0 h				1 pc
			5 Wh	Individual full battery runtime:	128.0 hours		•
	total light point power	<u>-</u>					12.0 W
	total load power (incl.	Light point	ts)				77.5 W
All ligh	nt points lumen outp	ut:					1680 lm
	All light points run time	e after typi	cal day o	f solar charging			53.3 hours
	assume solar day: 5.0 KWh/m2/day						640.0 Wh/day
			1	extra Energy during d	ay time: →		(74 Wh/day)
	All lighting p	oints full ba	attery rur	ntime:			53.3 hours

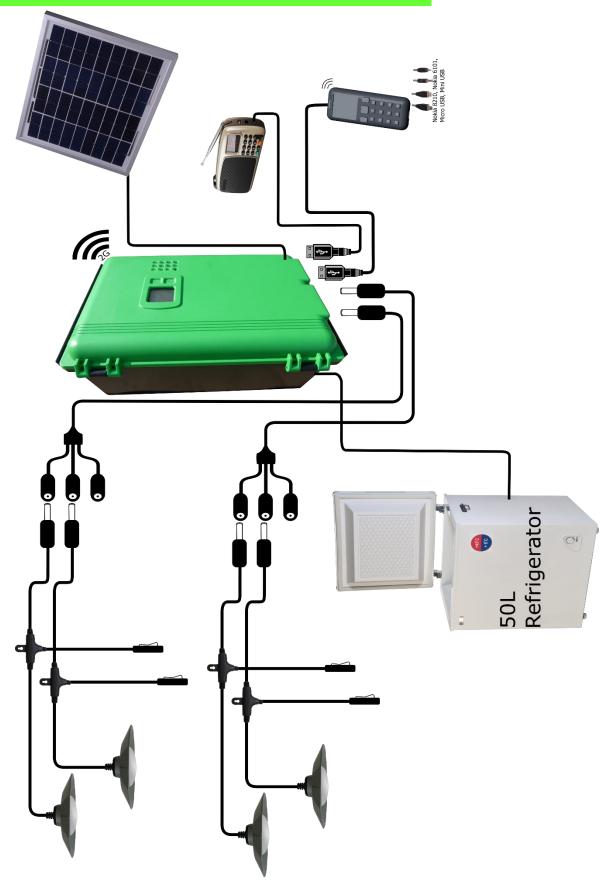
<u> </u>	Description:	Rating:	Content:
Sola	Polycrystalline Silicon Solar Panel Equipped with 8m wire	210 Wp	1 pc = 210 Wp

	Description:		Details	Content:		
ccessory	Mobile phone adapter	Adapters	USB wire, 1.5m : Nokia8210, Nokia 6101, Micro USB, Mini USB	1 pc		
S	Load distribution wire		Length: 3m, 3 outputs	2 pc		
ď	Remote Connectivity		2G Communication	Opiton		
	PAYG-Ready with Luzhy platform			yes		
	Values are calculated and can varia	te accordin	g environment conditions			
	Product Warranty: 3 years on ma	aterials and	manufacturing defects			
	Operation ambient temperature -20 to +50	°C; All valu	es at 25°C ambient temperature			
TT	L consumption per day:		415.0 Wh			
Ba	ttery Capacity:		640 Wh			
Ba	ttery autonomy at full battery:	1.54 days				
Da	ily harvest @ 5kWh/m2/Day up to:		714 Wh			
Da	ily harvest @ 3kWh/m2/Day up to:		428 Wh			

Solar Home System Kit SHS50-C3A







Solar Home System Kit SHS75-C3B

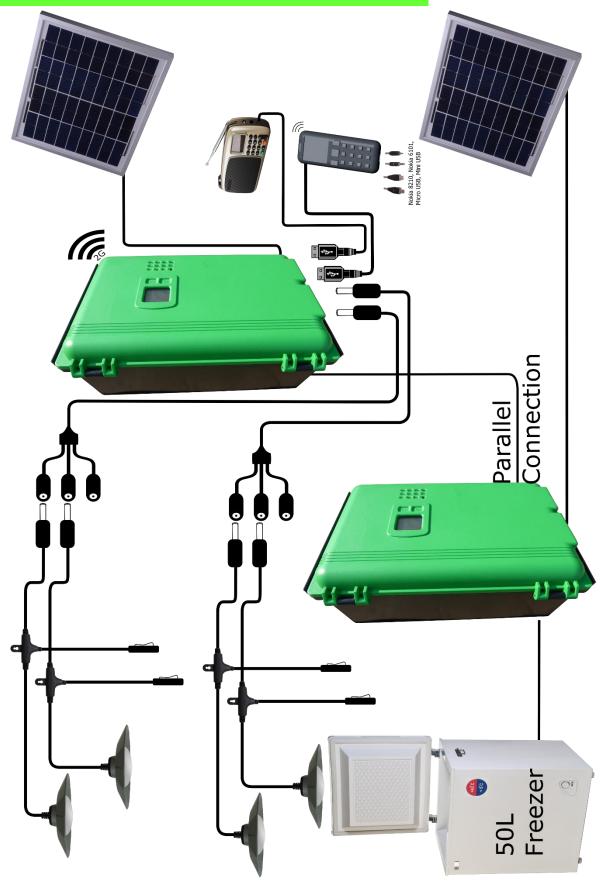


	Description:	charging current	load current		Rating:		Content:
	Litio SHS with integrated PWM	20 A	20 A		25.0 Ah	320 Wh	1 pc
	charger and LCD display. Load Plug and Play features	20 A	20 A	12.8 V	50.0 Ah	640 Wh	1 pc

			ı				
D	escriptio	n of optional Light Points	and other L	oads:	Lumen Out	put:	Content:
	I talak	Sunflower 3 W 10.0 h 420 lm					4
	Light:	Equipped with 2*5m + 2*9m wire and	d switch	120 Wh	Individual full battery runtime: 320 hours		4 pc
	Loodi	Radio AM/FM	0.50 W	10.0 h			1 no
	Load:			5 Wh	Individual full battery runtime:	1920 hours	1 pc
	Load:	Freezer 50L	60.00 W		456Wh/d @32°C		1 pc
	Load.	Commercial use			Individual full battery runtime:	2.1 days	ı pc
	Load:	Mobile Phone charging	5.00 W	1.0 h			1 pc
				5 Wh	Individual full battery runtime:	192.0 hours	
	total light point power						12.0 W
		total load power (incl.	Light point	s)			77.5 W
	All ligh	nt points lumen outp	ut:				1680 lm
		All light points run tim	e after typi	cal day o	f solar charging		80.0 hours
		assume sola	r day: 5.0	KWh/m	n2/day		960.0 Wh/day
			extra Energy during day time: \rightarrow			(128 Wh/day)	
					extra Energy during d	ay time: \rightarrow	(120 Will, ddy)
		All lighting p	oints full ba			ay time: →	80.0 hours
	Descript	5 5 1	oints full ba				. , ,,
olar	_	5 5 1			ntime:		80.0 hours Content: 2 pc
Solar	Polycrys	tion:			ntime:		80.0 hours Content:
Solar	Polycrys Equipped	tion: stalline Silicon Solar Par with 8m wire			Rating:		80.0 hours Content: 2 pc = 320 Wp
	Polycrys	tion: stalline Silicon Solar Par with 8m wire			Rating: 160 Wp		80.0 hours Content: 2 pc
	Polycrys Equipped	tion: stalline Silicon Solar Par with 8m wire		attery rur	Rating:)	80.0 hours Content: 2 pc = 320 Wp
	Polycrys Equipped of the polycryster of the polycry	tion: stalline Silicon Solar Parwith 8m wire tion: one adapter		Adapters	Rating: 160 Wp Details USB wire, 1.5m : Nokia8210, Nokia 61 USB, Mini USB Length: 3m, 3 outputs	01, Micro	80.0 hours Content: 2 pc = 320 Wp Content: 1 pc 2 pc
Accessory	Polycrys Equipped of the photostal p	stalline Silicon Solar Par with 8m wire tion: one adapter bution wire onnectivity		Adapters	Rating: 160 Wp Details USB wire, 1.5m : Nokia8210, Nokia 61 USB, Mini USB	01, Micro	80.0 hours Content: 2 pc = 320 Wp Content: 1 pc 2 pc Option
	Polycrys Equipped of the photostal p	stalline Silicon Solar Par with 8m wire tion: one adapter bution wire onnectivity dy with Luzhy platform	nel	Adapters	Rating: 160 Wp Details USB wire, 1.5m : Nokia8210, Nokia 61 USB, Mini USB Length: 3m, 3 outputs 2G Communication	001, Micro	80.0 hours Content: 2 pc = 320 Wp Content: 1 pc 2 pc
	Polycrys Equipped of the photostal p	tion: stalline Silicon Solar Par with 8m wire tion: one adapter sibution wire onnectivity dy with Luzhy platform Values are calculate	nel	Adapters te according	Rating: 160 Wp Details USB wire, 1.5m : Nokia8210, Nokia 61 USB, Mini USB Length: 3m, 3 outputs	01, Micro	80.0 hours Content: 2 pc = 320 Wp Content: 1 pc 2 pc Option
	Polycrys Equipped of the photostal p	tion: stalline Silicon Solar Par with 8m wire tion: one adapter sibution wire onnectivity dy with Luzhy platform Values are calculate	nel ed and can varia	Adapters te according aterials and	Pating: Rating: 160 Wp Details USB wire, 1.5m : Nokia8210, Nokia 61 USB, Mini USB Length: 3m, 3 output: 2G Communication g environment condition manufacturing defects	01, Micro	80.0 hours Content: 2 pc = 320 Wp Content: 1 pc 2 pc Option
Accessory	Polycrys Equipped Descript Mobile pho Load distri Remote Co PAYG-Rea	tion: stalline Silicon Solar Parwith 8m wire tion: one adapter sibution wire onnectivity dy with Luzhy platform Values are calculate Product Warranty	nel ed and can varia	Adapters te according aterials and	Pating: Rating: 160 Wp Details USB wire, 1.5m : Nokia8210, Nokia 61 USB, Mini USB Length: 3m, 3 output: 2G Communication g environment condition manufacturing defects	01, Micro s ons emperature	80.0 hours Content: 2 pc = 320 Wp Content: 1 pc 2 pc Option
Accessory	Polycrys Equipped Descript Mobile pho Load distri Remote Co PAYG-Rea	stalline Silicon Solar Par with 8m wire tion: one adapter ibution wire onnectivity dy with Luzhy platform Values are calculate Product Warranty Operation ambient tempera	nel ed and can varia	Adapters te according aterials and	Pating: 160 Wp Details USB wire, 1.5m : Nokia8210, Nokia 61 USB, Mini USB Length: 3m, 3 output: 2G Communication g environment condition g environment condition manufacturing defects es at 25°C ambient te	001, Micro s ons s emperature 0) Wh	80.0 hours Content: 2 pc = 320 Wp Content: 1 pc 2 pc Option
Accessory Bat	Polycrys Equipped Descript Mobile pho Load distri Remote Co PAYG-Rea consultery Ca ttery Ca	stalline Silicon Solar Par with 8m wire tion: one adapter bution wire onnectivity dy with Luzhy platform Values are calculate Product Warranty Operation ambient tempera	nel ed and can varia v: 3 years on ma ature -20 to +50	Adapters te according aterials and	Rating: 160 Wp Details USB wire, 1.5m : Nokia8210, Nokia 61 USB, Mini USB Length: 3m, 3 outputs 2G Communication g environment condition g e	0.01, Micro s ons emperature 0 Wh 0 Wh	80.0 hours Content: 2 pc = 320 Wp Content: 1 pc 2 pc Option
Accessory Batt Batt	Polycrys Equipped Descript Mobile pho Load distri Remote Co PAYG-Rea consultery Ca ttery Ca	stalline Silicon Solar Par with 8m wire tion: one adapter bution wire onnectivity dy with Luzhy platform Values are calculate Product Warranty Operation ambient tempera	nel ed and can varia r: 3 years on ma eture -20 to +50 ry: y up to:	Adapters te according aterials and	Patime: Rating: 160 Wp Details USB wire, 1.5m : Nokia8210, Nokia 61 USB, Mini USB Length: 3m, 3 outputs 2G Communication g environment condition manufacturing defects es at 25°C ambient te	ons emperature) Wh) Wh days	80.0 hours Content: 2 pc = 320 Wp Content: 1 pc 2 pc Option

Solar Home System Kit SHS75-C3B





Solar Home System Kit SHS75-C3C

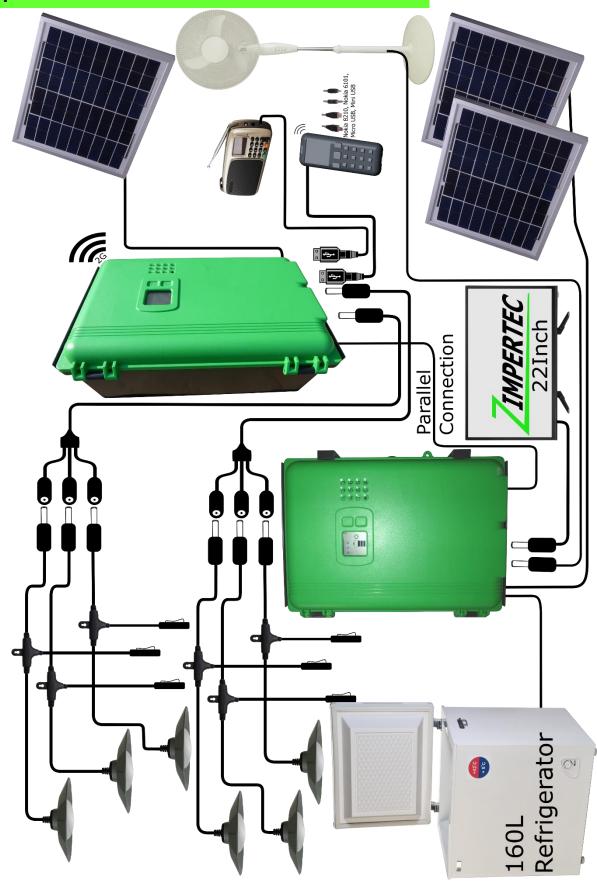


	Description:		charging current	load current		Rating:		Content:		
		HS with integrated PWM	20 A	20 A		25.0 Ah	320 Wh	1 pc		
		r and LCD display. Load ig and Play features	20 A	20 A	12.8 V	50.0 Ah	640 Wh	1 pc		
_	oscrintio	on of optional Light Points	and other I	oadsi	1.	ımen Outı	aut.	Content:		
	escriptio	Sunflower	3 W	10.0 h	L	420 lm	Jut.	Content.		
	Light:			180 Wh	Individu	al full battery	320 hours	6 pc		
	Equipped with 2*5m +4*9m wire and		1		ru	ntime:	320 Hours			
	Load:	Radio AM/FM	0.5 W	10.0 h	Individua	al full battery	T	1 pc		
				5 Wh		ntime:	1920 hours			
	Load:	TV-22"	14 W	10 h	Individus	al full battery		1 pc		
			T	140 Wh		ntime:	69 hours	- PG		
	Load:	Fridge 160L	60.00 W	24 h		/d @32°C		1 pc		
	Luau.	Commercial use		350 Wh		al full battery ntime:	2.7 days	1 pc		
	11-	Stand Fan	10 W	10 h				4		
	Load:			100 Wh		al full battery ntime:	96.0 hours	1 pc		
	Load:	Mobile Phone charging	5 W	1.0 h	10	intinic.		1 pc		
				5 Wh		al full battery ntime:	192.0 hours	· ·		
		total light point power	•		14	nume.		18.0 W		
		total load power (incl.		ts)				107.5 W		
	All ligh	nt points lumen outp						2520 lm		
		All light points run tim		cal day c	of solar	charging		53.3 hours		
		assume sola						960.0 Wh/day		
		40541116 5014	. uu j. 0.0	,	_	rgy during d	av time: →	(672 Wh/day)		
		All lighting p	oints full ha	attery rui		. 5,	a, a	53.3 hours		
_	Descript			I	Rating:		Content:			
Solar	Polycry	stalline Silicon Solar Par with 8m wire	nel			160 Wp		3 рс		
0,								= 480 Wp		
	Descript	tion:				Details		Content:		
Accessory	Mobile pho	one adapter		Adapters	: Nokia82	ire, 1.5m 10, Nokia 61 Mini USB	01, Micro	1 pc		
Ö	Load distri	ibution wire		Length: 3m, 3 outputs		2 pc				
	Remote Co	onnectivity			2G Com	munication		Option		
Ă	B 43 45 -	dy with Luzhy platform	ate accordin	na environ	ment conditi	ons	yes			
Ă	PAYG-Rea		Values are calculated and can variate according environment conditions Product Warranty: 3 years on materials and manufacturing defects							
Ă	PAYG-Rea	Values are calculate			l manufac	turina defect	·s			
Ă	PAYG-Rea	Values are calculate Product Warrant	y: 3 years on m	naterials and						
		Values are calculate Product Warrant Operation ambient temper	y: 3 years on m	naterials and		C ambient to	emperature			
TTL	. consu	Values are calculate Product Warrant Operation ambient temper mption per day:	y: 3 years on m	naterials and		C ambient to	emperature O Wh			
TTL Bat	. consu	Values are calculate Product Warrant Operation ambient temper mption per day: pacity:	y: 3 years on m ature -20 to +5	naterials and		780.0 780.0	O Wh			
TTL Bat Bat	. consultery Ca	Values are calculate Product Warrant Operation ambient temper mption per day: pacity: stonomy at full batte	y: 3 years on mature -20 to +5	naterials and		780.0 960.0 1.23	O Wh O Wh days			
TTL Bat Bat	. consultery Catery au	Values are calculate Product Warrant Operation ambient temper mption per day: pacity:	y: 3 years on mature -20 to +5 ry: y up to:	naterials and		780.0 780.0	O Wh O Wh days			

Solar Home System Kit SHS75-C3C







Solar Home System Kit SHS100-C3D



	Descript	tion:	charging current	load current		Rating:		Content:	
	charge	HS with integrated PWM r and LCD display. Load g and Play features	20 A	20 A	12.8 V	50.0 Ah	640 Wh	2 pc	
D	escriptio	n of optional Light Points	and other I	Loads:	Lu	ımen Outp	out:	Content:	
	Light:	Sunflower	3 W	10.0 h		420 lm		6 pc	
	Ligit.	Equipped with 2*5m +4*9m wire and	switch	180 Wh		al full battery ntime:	427 hours	6 pc	
	Load:	Radio AM/FM	0.5 W	10.0 h				1 nc	
	Luau.			5 Wh		al full battery ntime:	2560 hours	1 pc	
	Load:	TV-22"	14 W	10 h				1 nc	
	Luau.			140 Wh		al full battery ntime:	91 hours	1 pc	
	Load:	Freezer 160L	60 W	24 h		/d @32°C		1 nc	
	Loau.	Commercial use		560 Wh		al full battery ntime:	2.3 days	1 pc	
	1 0 0 0	Stand Fan	10 W	10 h				1	
	Load:			100 Wh		al full battery ntime:	128.0 hours	1 pc	
	Load:	Mobile Phone charging	5 W	1.0 h				1 pc	
				5 Wh		al full battery ntime:	256.0 hours		
		total light point power	•					18.0 W	
		total load power (incl.	Light poin	ts)				107.5 W	
	All ligh	nt points lumen outpo	ut:					2520 lm	
		All light points run time	e after typi	cal day of solar charging				71.1 hours	
		assume sola	r day: 5.0	KWh/n	12/day	1		1280.0 Wh/day	
					extra Ene	rgy during da	ay time: →	(779 Wh/day)	
		All lighting p	oints full ba	attery runtime:				71.1 hours	
_	Descript	tion:				Rating:		Content:	
Solar	Polycry: Equipped	stalline Silicon Solar Par with 8m wire	nel		160 Wp			4 pc = 640 Wp	
	Descript	tion:				Details		Content:	
Accessory		one adapter		USB wire, 1.5m Adapters: Nokia8210, Nokia 6101, Micro USB, Mini USB		01, Micro	1 pc		
Ö		ibution wire				m, 3 outputs	5	2 pc	
4		onnectivity			2G Com	munication		1 pc	
	raig-kea	dy with Luzhy platform Values are calculate	ed and can vari	ate accordir	ng environ	ment conditi	ons L	yes	
		Product Warrant							
		Operation ambient temper							
TTI	_ consu	mption per day:				990.0) Wh		
	tery Ca	<u> </u>		1			0 Wh		
		tonomy at full batte	ry:				days		
_		est @ 5kWh/m2/Day	-	2059 Wh					
Dai	ily harv	est @ 3kWh/m2/Day	up to:			1306	5 Wh		
	vany narvest @ skirin/ ini2/ bay ap to:								

Solar Home System Kit SHS100-C3D





