

LS-AC-2.5kWAC/x.xxkWh

Compact AC-Solar Home System

ZIMPERTEC

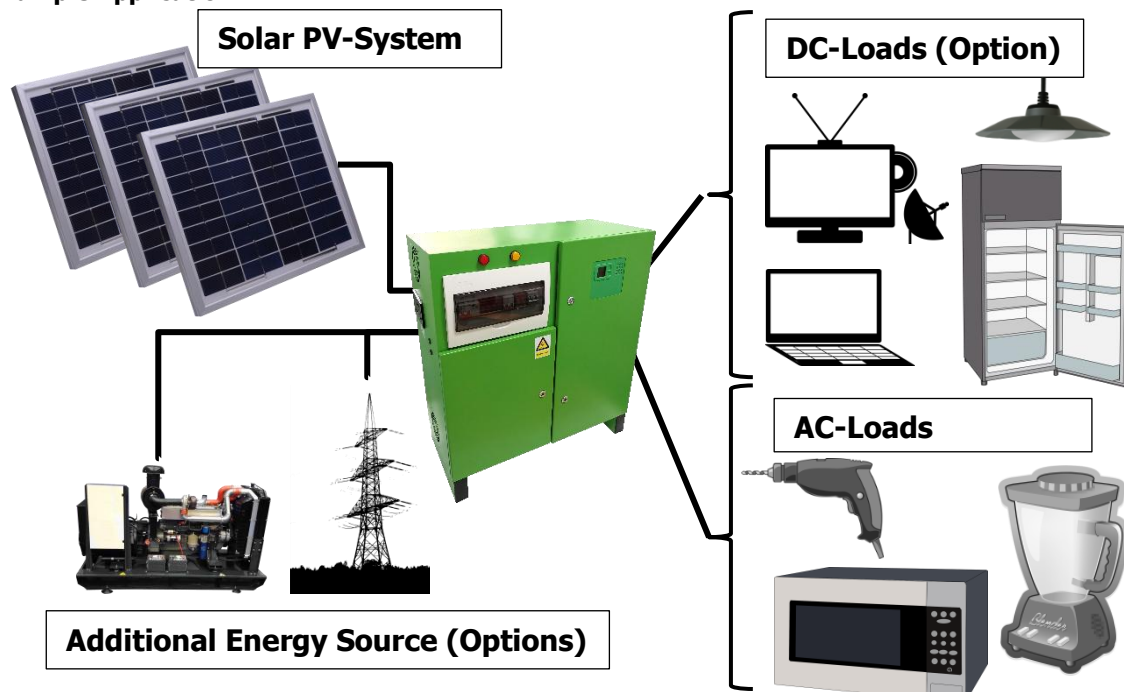
- LiFePO4 battery 2.5 to 5.1kWh capacity (25.6V)
- Integrated Solar MPPT Charge controller with single cell monitoring and controlling
- Long Battery life time (>4000 cycles)
- Integrated BMS with Cell-Balancing
- AC Load output 2.5kW/220V/50Hz
- 24V DC output for operating DC loads
- Plug & Play (with 2 AC socket)
- AC charger input for Generator or similar power source
- AC-Backup-function
- Protections:
 - Earth Leakage protection
 - Air-Breaker for AC distribution
 - Surge Arrestor (AC output, AC input, Panel input)
- Options available
 - Grounding Accessories
 - Ground rod
 - Ground connection
 - Potential equalization rail
 - Daily consumption limit
 - Pay as you Go



System box appearance can modify

The **LiFePO4 Battery** for the **Compact AC Solar Home System** is using one of the longest lifetime Lithium technologies and therefore ideal for solar applications. Its excellent behavior at low SOC conditions can give best performance at low sun conditions and allow making use of the full capacity. Additional the wide operating temperature range makes it ideal for most areas in the world. The Integrated MPPT Charge controller and AC inverter with its unique single cell monitoring for optimizing the battery operation can ensure the best System performance. The ready to use system makes the product useful for many applications, which can significant reduce the service, maintenance and installation cost.

Example Application:



Datasheet: DATASHEET-LS-AC-2.5KWAC-X.XKWH-2026-01-13-V4-0 Subject to change without notice

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Technical Data:

Type:	LS-AC 2kW-2.56kWh	LS-AC 2kW-5.12kWh
Battery:		
Battery type:	LiFePO4	
Nominal Voltage:	25.6V	
Capacity @ 0.25C, 25°C:	2.56kWh	5.12kWh
	100Ah	200Ah
Charging Voltage:	<29.2V	
Low Battery disconnect Voltage:	>22V	
Max. Discharge Current:	120A	
Cycle Life:	>4000 cycles at 100%DOD, 0.5C, 25°C	

Inverter Output:

Rated Power	2500W
Surge Power	5000W
Waveform	Pure sine wave
AC output Voltage	220VAC±5% at battery operation (User selectable)
Inverter Efficiency	Max. 90% - 93%
Transfer Time for switch over form external AC source to Inverter (option)	AC-Backup function 10ms(For Personal Computers) 20ms(For Home Appliances)
Output terminal	AC socket Type on request

Solar MPPT Charger:

PV Open Circuit Voltage	Max. 400VDC
PV MPPT Voltage	30 to 320VDC
PV current in max	18A
PV Power	4kWp
PV Charge Current	Max. 80A
Efficiency	Max. 98%
Input Terminals:	2 sets of 4mm Solar Terminal (+/- input)

AC-Charger:

AC-Input	220V/50Hz, 10A
Charging current	20A
Input Terminals:	AC socket

DC Load output: (Option)

Voltage:	Battery voltage range: 22V to 29.2V
Load Current:	Max. 10A
Protection:	Short Circuit, Overload, Inductive Load protection
Terminal:	2*SAE terminal

Case:

Dimensions	ca. 90*80*35cm	
Weight ca.	74kg	96kg
Protection	IP20	

Environment:

Humidity	5% to 95% non-condensing
Operating Temperature	-20 to 50°C
Storage Temperature	-15 to 60°C

Inverter/charger fulfill following Test Standards:

EN61000-6-4:2007+A1: 2011/ EN61000-6-2: 2005/ EN61000-3-2: 2014/ EN61000-3-3: 2013
EN62109-1:2010

2) on request only

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System Overview:



AC-Output



DC-Output, AC-Input, Panel Input



24V DC Output



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