



Back-up power

Back-up power supply for communication base station

Chunlan power battery has been widely used in the telecommunications, mobile communications base station as back-up power supply.



Model		C-BTS-48-50	C-BTS-48-100
Nominal Capacity	Ah	50	100
Nominal Voltage	V	48	48
Nominal Energy	KWh	2.5	5.0
Voltage range	V	41.6 ~ 57.6	
Overcharge protection cut-off voltage	V	57.6	57.6
Overdischarge protection cut-off voltage	V	41.6	41.6
Cell Qty	piece	16	16
Cell type		LiFePo4	
MAX Charge current	A	50	100
MAX Working current	A	50	100
Weight	kg	35	60
Dimension (W x D x H)	mm	480×480×133	480×420×222
Charging temperature	℃	0 ~ 45	0 ~ 45
Discharge temperature	℃	-20 ~ 60	-20 ~ 60
Charging mode		CC/CV	CC/CV
Cycle life	times	3000-5000	3000-5000



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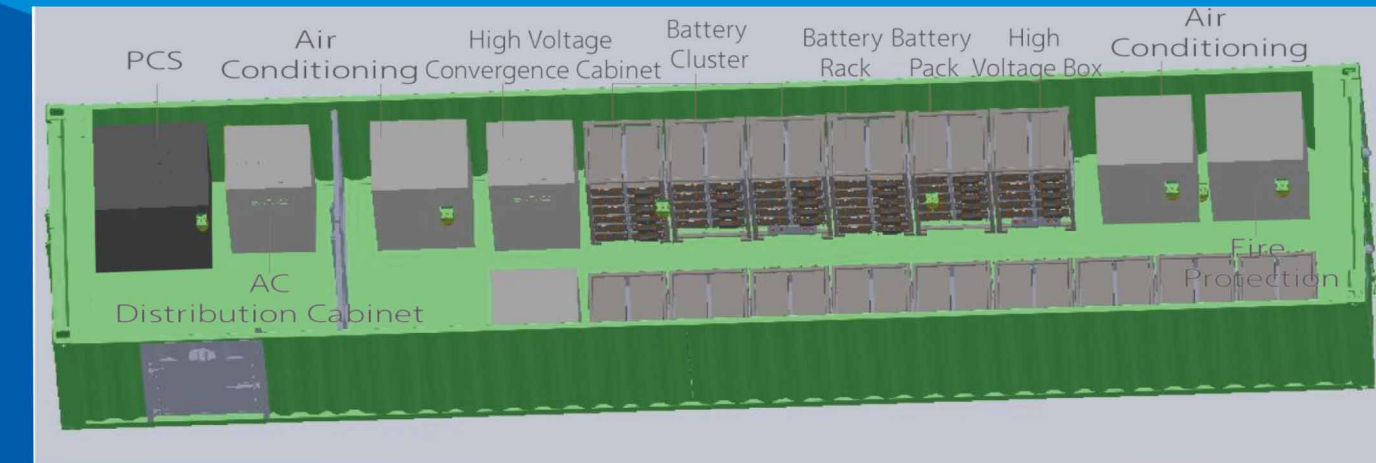
ENERGY STORAGE SYSTEM



Container Energy Storage

Chunlan 1MWh Container Energy Storage System Solution

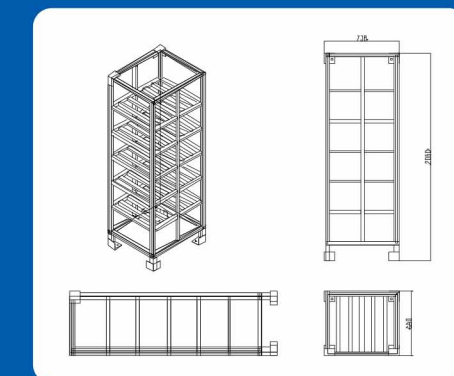
The container energy storage system adopts one 40ft standard container, which is assembled by 160 units battery packs, 2 pcs battery racks and 1 unit 3-level BMS. Battery system is consisted of 5 battery clusters and BMS, connected to DC bus through high voltage convergence cabinet. The whole energy storage system adopts LiFePo4 battery as storage medium, with nominal input & output power 500kW and nominal capacity 1.01MWh.



Battery cluster high voltage wire connection diagram:



Battery cluster rack design:





Container Energy Storage

Feature of 1MWh Energy storage system

Application Fields	Excellent Performance
Solar power plant	<ul style="list-style-type: none">• Excellent cycle life:<ul style="list-style-type: none">– After 8 years of operation in the DOD80 once a day, the total capacity of the battery system is not less than 80% of the initial capacity,• High magnification charge and discharge performance, discharge rate can up to 2C• Excellent consistency performance• Friendly scheduling: standard external communication protocol, to achieve reliable external communication, friendly scheduling• High integration: –using container as a carrier that integrates 1MWh battery system, BMS, environmental monitoring system• High environmental adaptability, can be used in high altitude, cold, windy and sandy area Stable and excellent safety performance
Wind power plant	
Areas of limited access to power grid	
Grid "Black start"	
Grid frequency modulation	

Item	Parameter
Rated Capacity	1MWh
Model	IFPE110C 110Ah
Battery Module	6S3P
Overall connection	192S15P
Battery Cluster	5 Cluster
External Fixing	M16 bolt
Work Temperature Range	-40℃~60℃
Communication Interface	RS485x2 / CANx1 / Ethernet10 / 100Mx2 / RS232x2
Voltage Range	480V-700.8V
Charge-Discharge Rate	Max 2C
Current sampling Accuracy	≤±1%
Temperaturesampling Accuracy	±1℃
Voltage sampling period	≤10ms
Current sampling period	≤10ms
Temperaturesampling period	≤100ms
Historical Data Storage	≥30Days



Residential Energy Storage

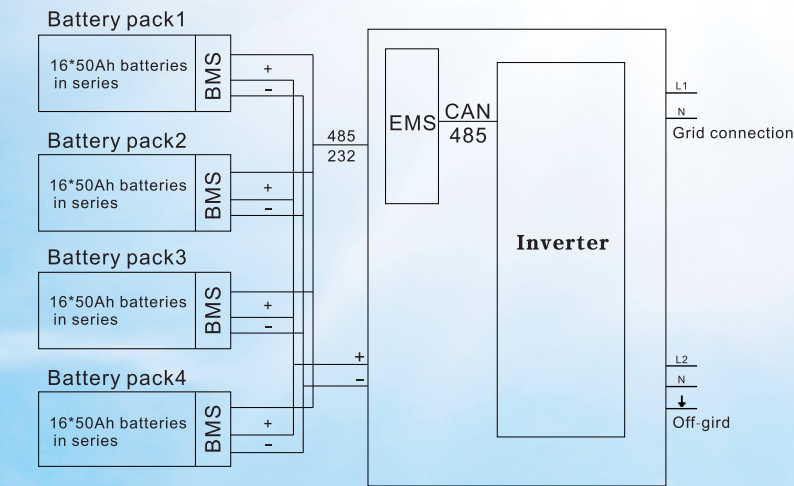
Chunlan residential solar PV energy storage system

The Chunlan residential solar PV energy storage system consists of Battery pack, Inverter and BMS.

One Battery pack includes 2.4kWh battery system, which is assembled by 16 pcs 3.2V 50Ah LiFePO4 batteries in series, 1set of 3-level battery management system.

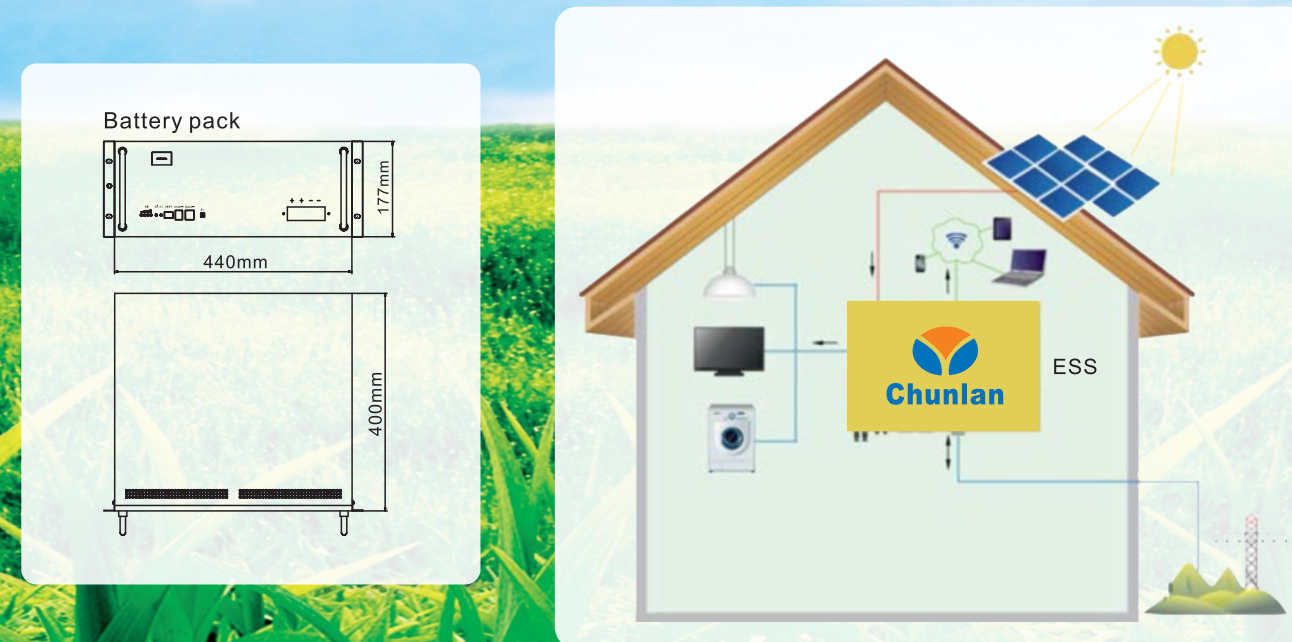
The capacity of the storage system can be adjusted by different quantity of battery packs, according to Customers' requirements .

The system below is combined by four parallel battery packs.



Chunlan distributed solar PV energy storage system

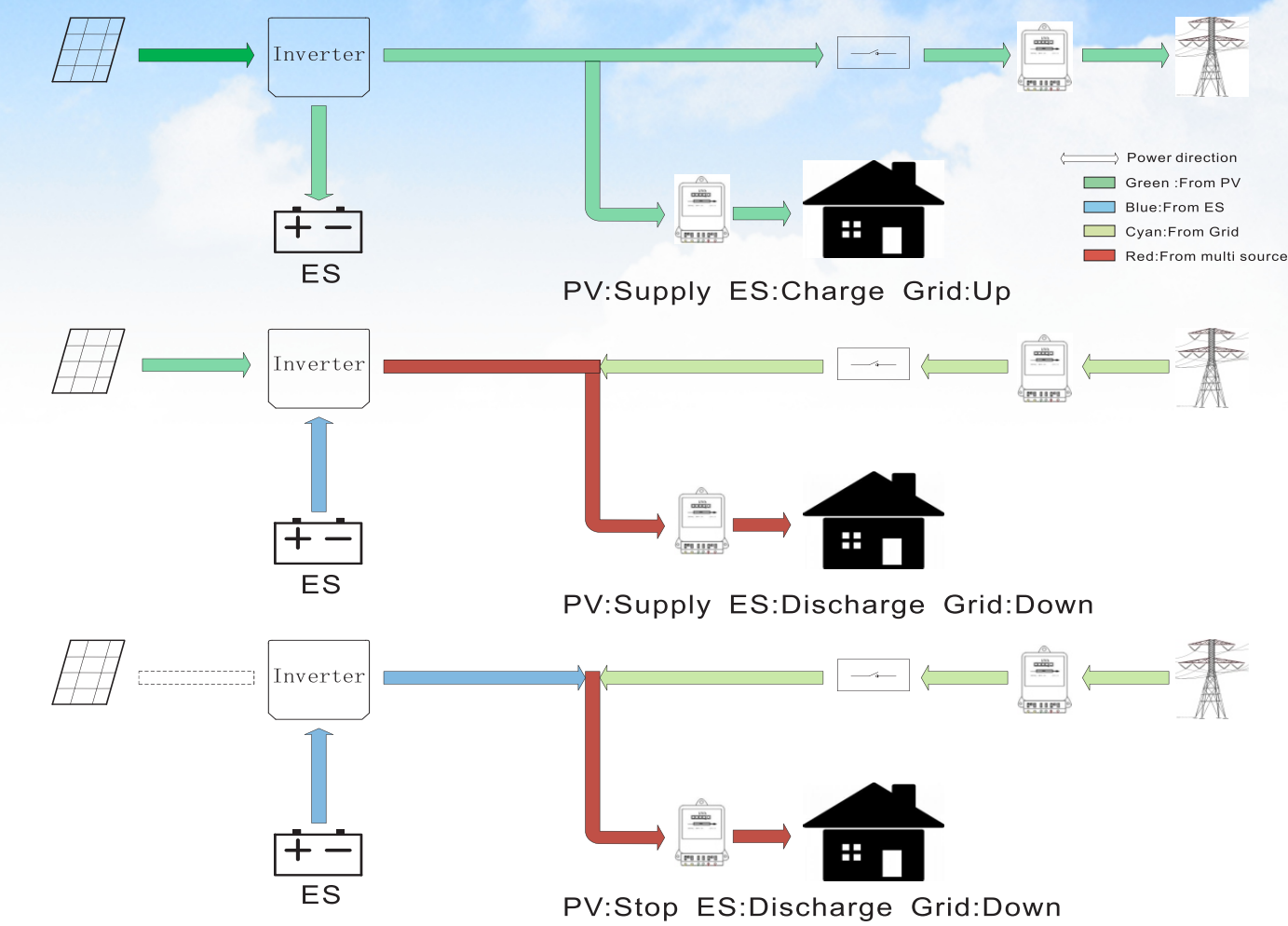
The whole system adopts LiFePO4 battery as storage medium, with nominal input & output power 9.6kW, nominal voltage 48V, and nominal current 200A.



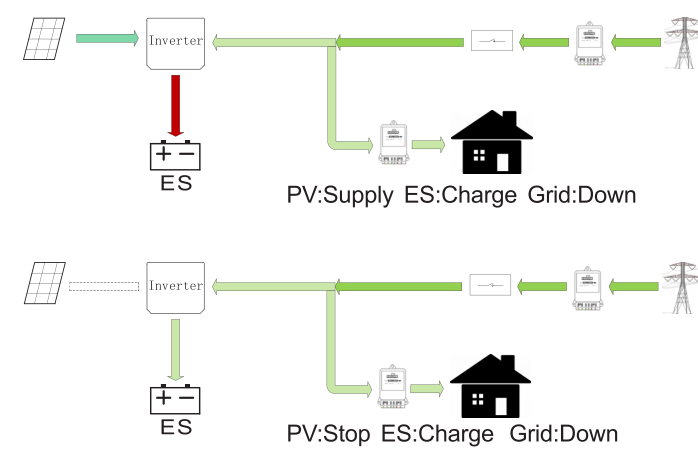
Residential Energy Storage

Smart Energy Management

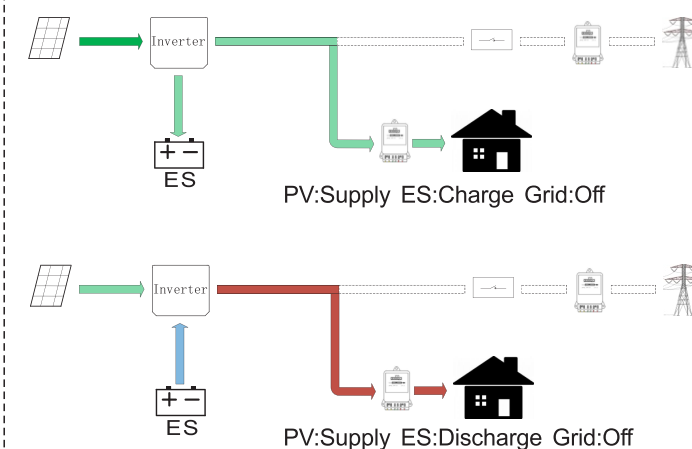
Model 1: Self Consumption



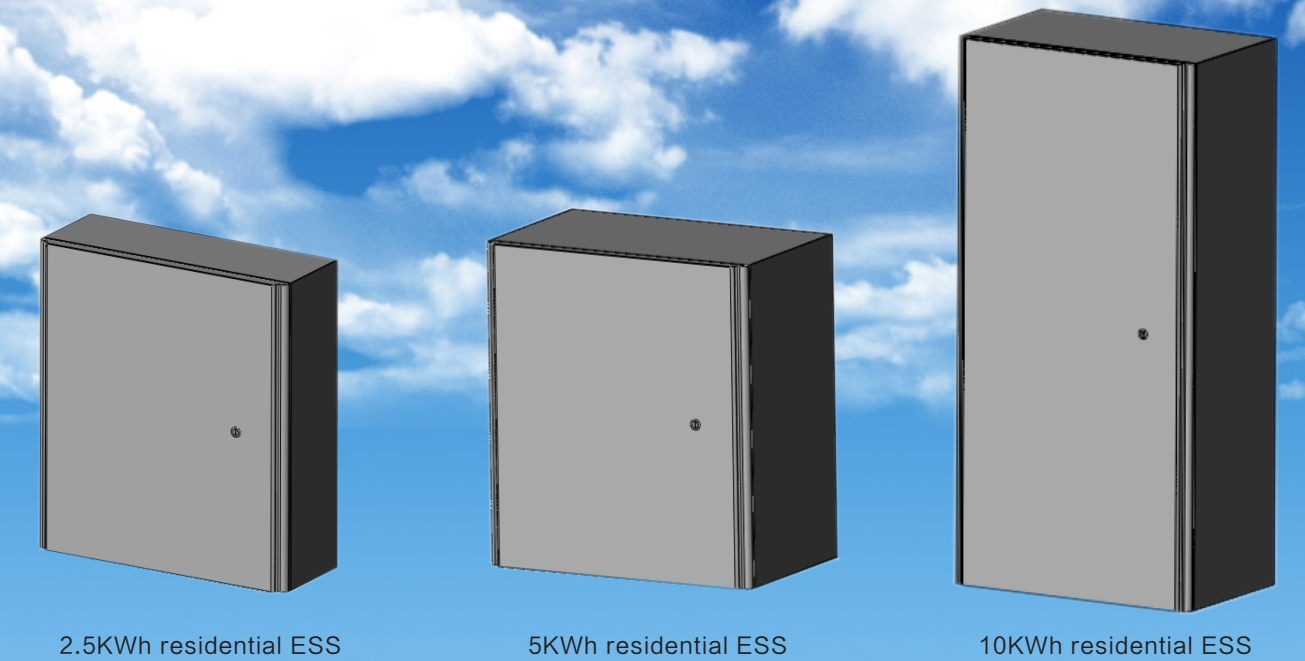
Model 2: Force Charging



Model 3: Off-Grid



Residential Energy Storage



Model	C-DESS-50	C-DESS-100	C-DESS-200
Nominal Voltage	50V	50V	50V
Nominal Capacity	50 Ah	100 Ah	200 Ah
Nominal Energy	2.5 kWh	5 kWh	10 kWh
Cell type	LiFePo4		
Max. Charge current	50A	100A	200A
Max. Working current	50A	100A	200A
Optimum temperature	-10℃ ~55℃	-10℃ ~55℃	-10℃ ~55℃
Weight	55kg	95kg	170kg
Net Dimension (W x D x H)	540*200*600mm	540*340*600mm	540*340*1100mm
Packing Dimension (W x D x H)	600 x 240 x 650mm	600 x 400 x 650mm	600 x 400 x 1180mm
Service Life	10 years	10years	10years
Relative humidity	25%~80%RH	25%~80%RH	25%~80%RH
Altitude	≤ 3600m	≤ 3600m	≤ 3600m