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GRID-INTERACTIVE Energy Storage Solutions

Full range of ESS for Industrial & Commercial
and Residential Grid-interactive Applications

Who we are

We, 3Tech Corporate Limited, HQ in Hongkong and shared by Tellhow listed in shanghai stock exchanger. Since founded, we have been focusing on full range of renewable utilization for Industrial, Commercial, and Residential applications.

Based on our strength of 20 years Generator manufacturing and management in industrial and commercial markets, we supply the most effective and optimized system integration to materialize customer's power demand in the world.



Value of Our Grid-Interactive ESS Added to Users

Earlier exploiter of energy storage system: Evolved from battery manufacturer so the weakest part in the system guaranteed;

Lower total ownership cost: Maximizing users value by

More utilization of power: Effectively and efficiently manage all power sources.

What is Our Grid-Interactive ESS

Our Grid-Interactive ESS represents the highest level and most sophisticated energy storage system applied for load frequency regulation, peak-shifting and storage of vast volume of renewable energy.

With our basic Grid-Interactive PCS units used for Battery-only and Micro-Grid, and two deep cycle endurable battery series, FCP and Lithium ion, we offer a variety of solutions of Grid-Interactive ESS both to the existing and initially installing of the new renewable energy power plants.

Composition of System

Our Grid-Interactive ESS is composed of 4 main integral units, Bi-Directional PCS Assembly, Battery Bank Assembly, PV Modules & Wind turbine and Accessories.

Bi-Directional PCS Assembly is the unit managing all functions working properly, and its main leading technologies keep our system the most cost effective options.

Battery Bank Assembly is optional within Sacred Sun's full range of endurable, cyclic battery solutions acting as the power reservoir, extending the longer warranty expectations of users.

PV Modules & Wind turbine and all Accessories are available from our long term well known partners in our responsibility to supply the warranty.

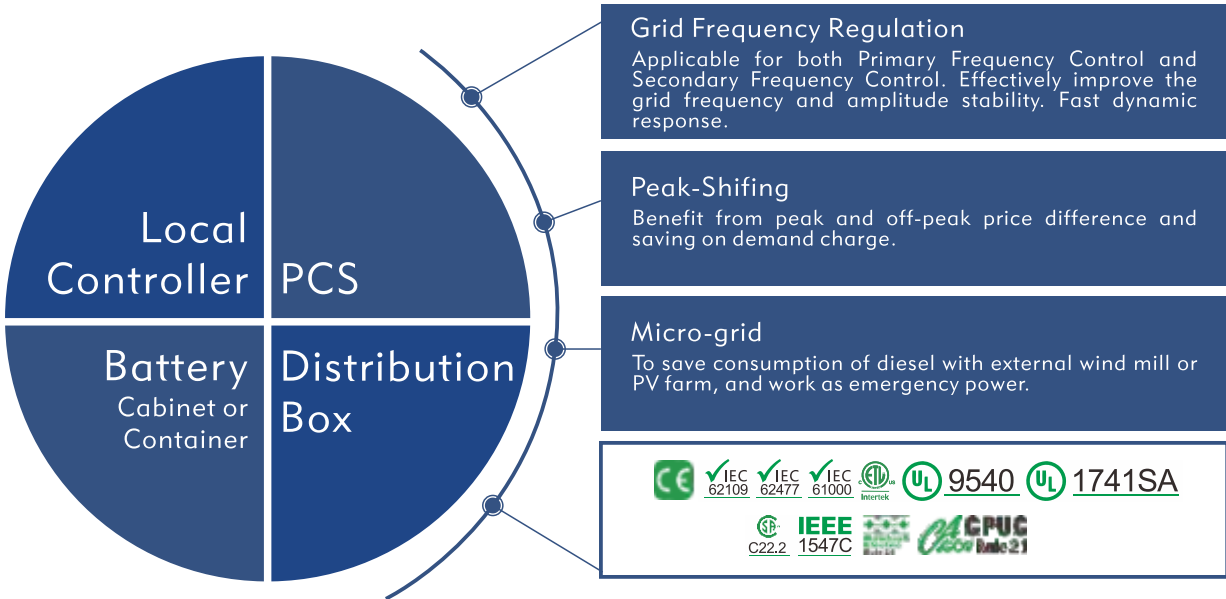


Grid-Interactive ESSfor Industrial & Commercial Applications

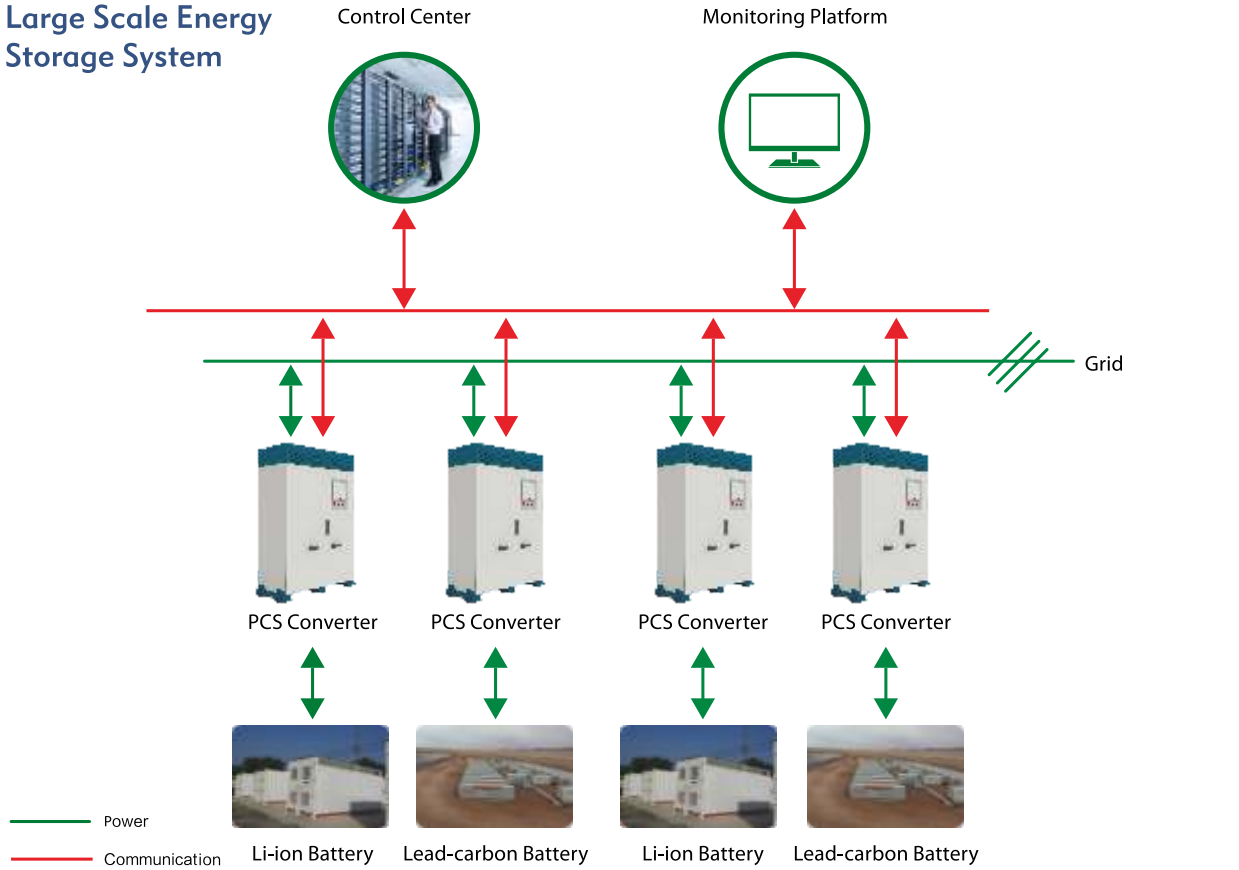


System Topology

Energy storage system is mainly consist of the bidirectional converter and batteries, to realize the grid power peak shaving, stabilize the volatility, increase electric quality and economic benefit,and also supply back-up power for loads.

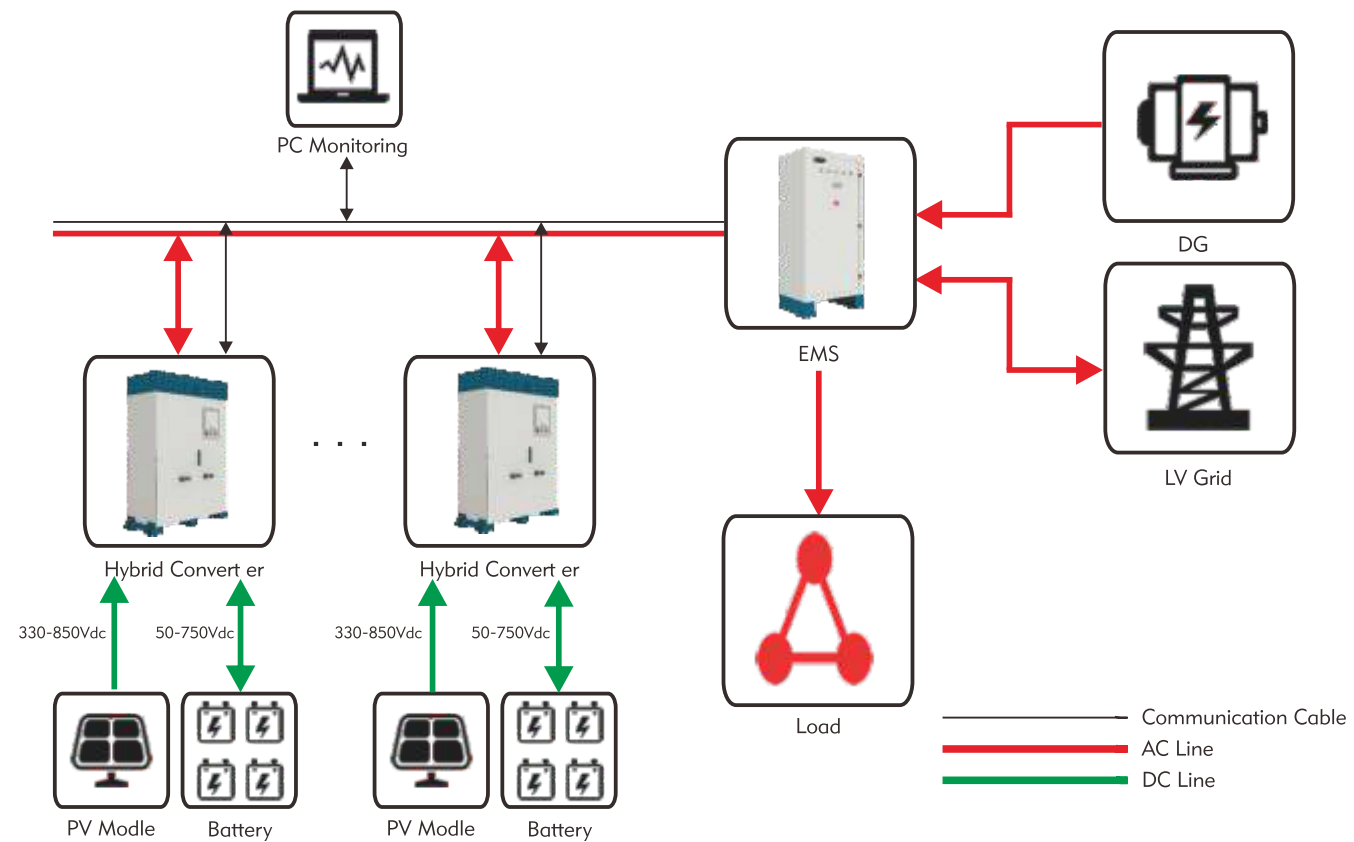


Large Scale Energy Storage System



Solutions

Commercial PV Energy Storage Hybrid System Solutions



Application Scenarios

- Commercial Buildings, Industrial Parks and Other Place With Large Quantity Of Load;
- Multi energy complementary, Self Generate and Self consume applications;
- Installation of PV power plants;
- Communication base stations, border posts, islands and other independent micro grid area;

System Highlights

- Support Multi Time-Segment & multi working mode flexible settings to meet the needs of various applications;
- Auto switching between working mode, unattended operation;
- Higher facility utilization ratio, minimal space occupation and lower system cost ;
- Improve PV utilization ratio, optimize the renewable energy usage;
- Support Smooth Seamless Switching Between On Grid and Off Grid Mode, Have Emergency Power Supply Function;

Applicable Products

EHPC50

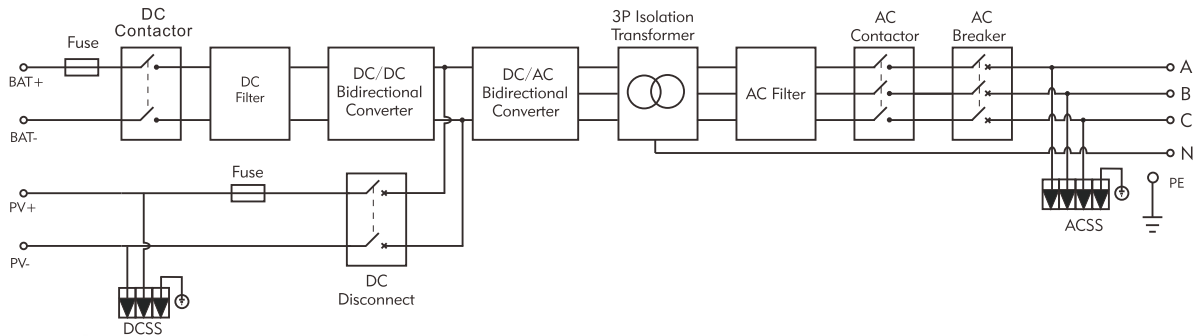
EHPC250



Product Highlights

- ✓ PV & energy storage integrated design, PV module, battery bank and power grid access simultaneously;
- ✓ Direct DC coupling from PV to battery, higher charging efficiency;
- ✓ Support on grid and off grid operation, built-in virtual synchronous generator control mode;
- ✓ Off grid mode support 100% three-phase unbalanced load, Strong resistance to load impact.

EHPC50 Electrical Principle Diagram



Product Model EHPC50

PV Side

Max Power	58kWp
Rated Voltage	600Vdc
MPP Voltage Range	330-850Vdc
Max Input Voltage	1000Vdc
Max Input Current	175A
MPPT NO.	1

Battery Side

Rated Voltage	350Vdc
Operating Voltage Range	50-750Vdc (Based On PV Input Voltage)
Full load Voltage Range	195-750Vdc
Max DC Power	55kW
Max DC Current	280A

AC Side

Rated Power	50kVA/50kW
Max AC Power	55kVA/55kW
Max AC Current	80A
Max THDI	<3% (Rated power)
Rated Grid Voltage	400Vac
AC Voltage Range	320-450Vac(Adjustable)
Rated Grid Frequency	50Hz
Rated Power Factor	>0.99
Power Factor Range	+/- 0.8
Off Grid Voltage Range	400Vac±3%
Off Grid Voltage Distortion	<1% (Linear Load)
Unbalanced Load Capacity	100%
Isolation Transformer Integrated	Integrated
Wiring	3P4W

Efficiency

PV- Grid	95%
Battery- Grid	94%

Common Parameters

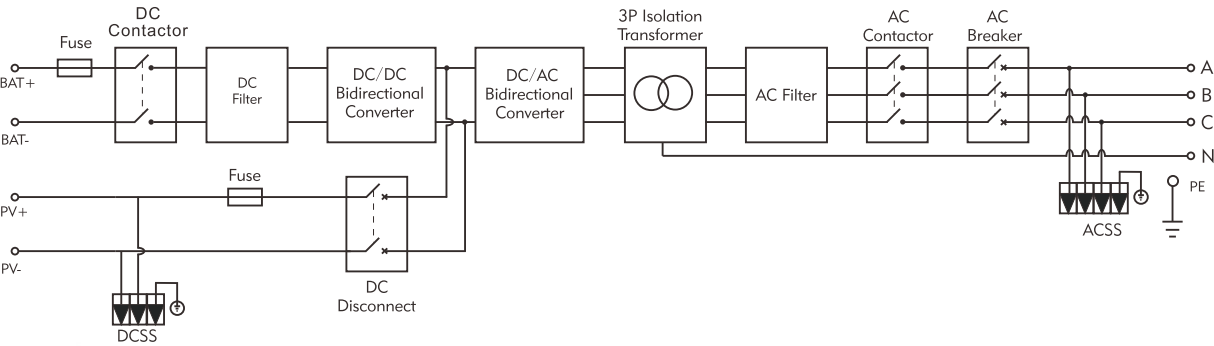
Size (Width * Height *Depth)	1250x1990x625mm
Weight	735kg
Operation Temperature Range	-30°C- + 60°C
Standby Power Consumption	<150W
Cooling	Forced Air
Protection Level	IP54
Relative Humidity	0-95%(Non Condensing)
Altitude	4000m
Display	7" Touch Screen
Communication	RS485, CAN(optional), TCP/IP(optional)



Product Highlights

- ✓ PV & energy storage integrated design, PV module, battery bank and power grid access simultaneously;
- ✓ Direct DC coupling from PV to battery, higher charging efficiency;
- ✓ Support on grid and off grid operation, Built-in virtual synchronous generator control mode;
- ✓ Off grid mode support 100% three-phase unbalanced load, Strong resistance to Load Impact.

EHPC250 Electrical Principle Diagram



Product Model EHPC250

PV Side

Max Power	290kWp
Rated Voltage	700Vdc
MPP Voltage Range	500-850Vdc
Max Input Voltage	1000Vdc
Max Input Current	579A
MPPT NO.	1

Battery Side

Rated Voltage	400Vdc
Operating Voltage Range	50-750Vdc (Based On PV Input Voltage)
Full load Voltage Range	350-750Vdc
Max DC Power	275kW
Max DC Current	750A

AC Side

Rated Power	250kVA/250kW
Max AC Power	275kVA/275kW
Max AC Current	397A
Max THDI	<3% (Rated power)
Rated Grid Voltage	400Vac
AC Voltage Range	320-450Vac(Adjustable)
Rated Grid Frequency	50Hz
Rated Power Factor	>0. 99
Power Factor Range	+/- 0. 8
Off Grid Voltage Range	400Vac±3%
Off Grid Voltage Distortion	<1% (Linear Load)
Unbalanced Load Capacity	100%
Isolation Transformer Integrated	Integrated
Wiring	3P4W

Efficiency

PV- Grid	97.1%
Battery- Grid	95.5%

Common Parameters

Size (Width * Height *Depth)	1800x2222x1089mm
Weight	1920kg
Operation Temperature Range	-30°C- + 60°C
Standby Power Consumption	<150W
Cooling	Forced Air
Protection Level	IP54
Relative Humidity	0-95%(Non Condensing)
Altitude	4000m
Display	7" Touch Screen
Communication	RS485, CAN(optional), TCP/IP(optional)

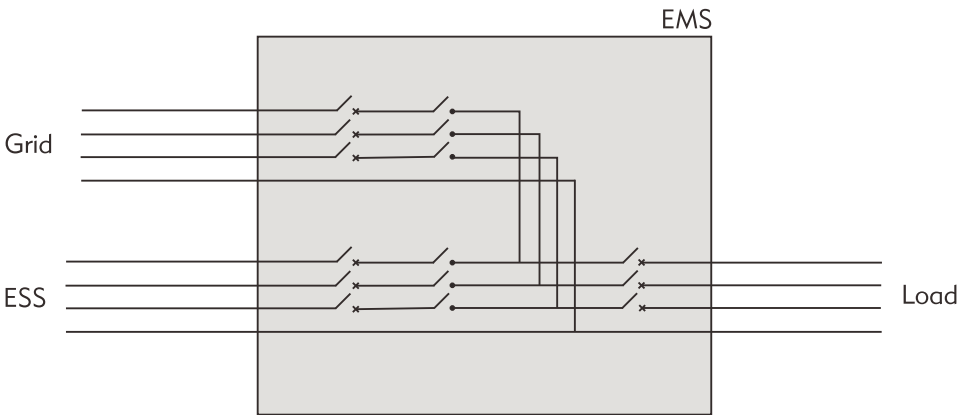


Product Features

- ✓ Suitable for energy management and monitoring applications such as energy storage systems;
- ✓ Support time-segment multi operation mode preset, have anti grid power reverse function;
- ✓ Multi communication interfaces available, meets the needs of various networking modes and remote dispatching;
- ✓ Real time display energy storage system equipments operation parameters;
- ✓ Maintenance bypass function;
- ✓ Optional access port for diesel generator.

Product Model	EHPC250	EHPC250	EHPC250
Electrical Parameter			
Rated Power	150kW	500kW	1000kW
Output Over Load Power	165kW	550kW	1100kW
Rated Output Voltage		400Vac	
Rated Output Frequency		50Hz	
Communication and Display			
Display		Touch Screen	
Background Communication		RS485,TCP/IP	
Communication Protocol		Modbus	
Device Communication		RS485	
Power Supply			
AC Power Supply		230Vac	
Self Power Consumption	<30W	<60W	<80W
I/O Port			
Isolated Input Node		3 Road	
Isolated Output Node		3 Road	
Other Parameters			
Dimension(W * H * D)	800x1750x1000mm	1000x1980x1100mm	1200x2120x800mm
Weight	180kg	280kg	380kg
Operating Temperature Range		-30°C- + 60°C	
Protection Level		IP20	
Relative Humidity		0-95%(Non Condensing)	
Altitude		4000m	

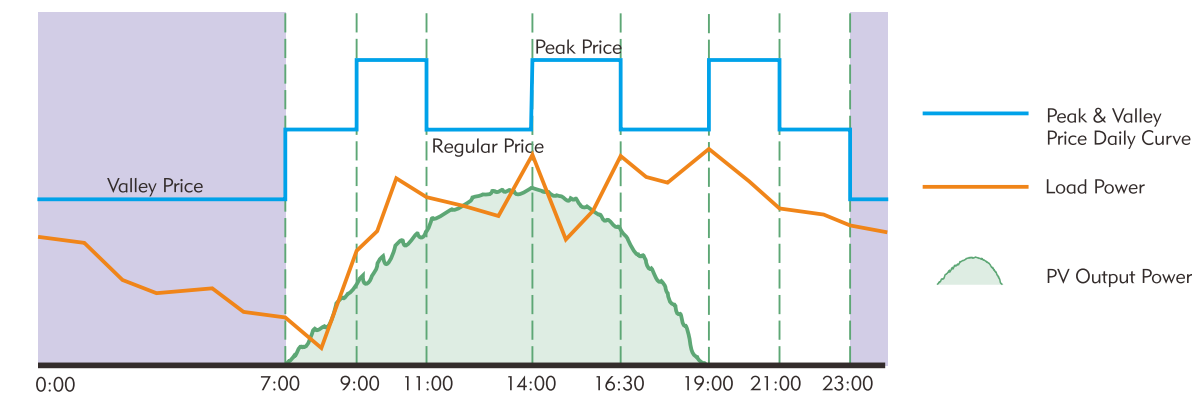
Energy Management System Electrical Principle Diagram



Typical Applications

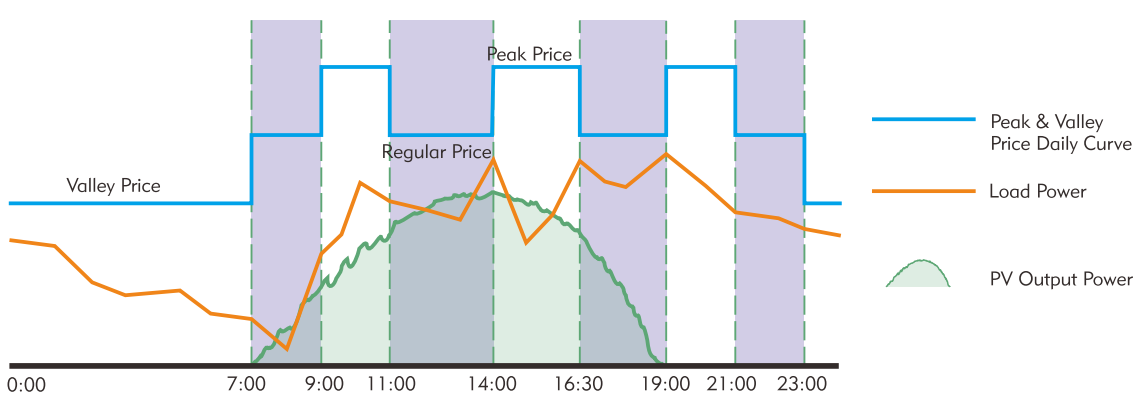
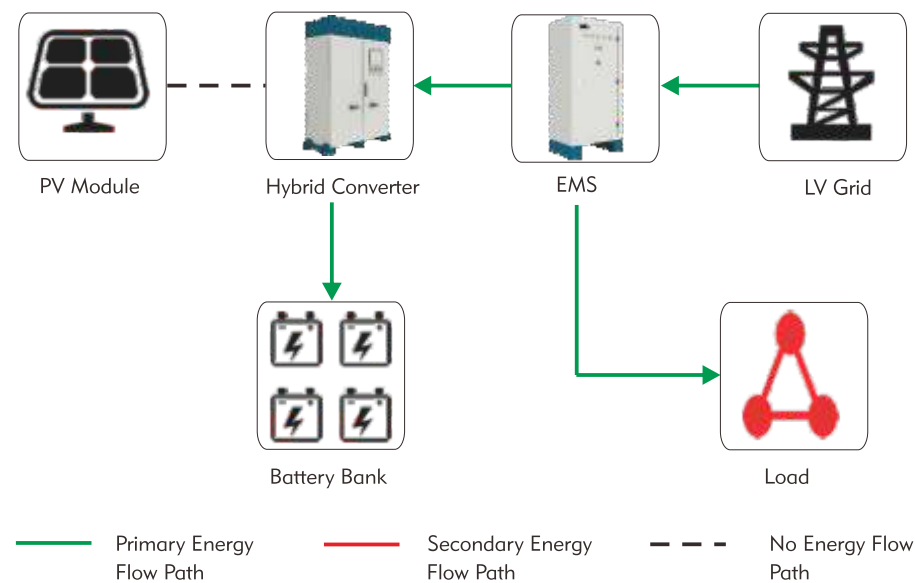


PV & Battery Hybrid, Peak Shaving & Valley Filling



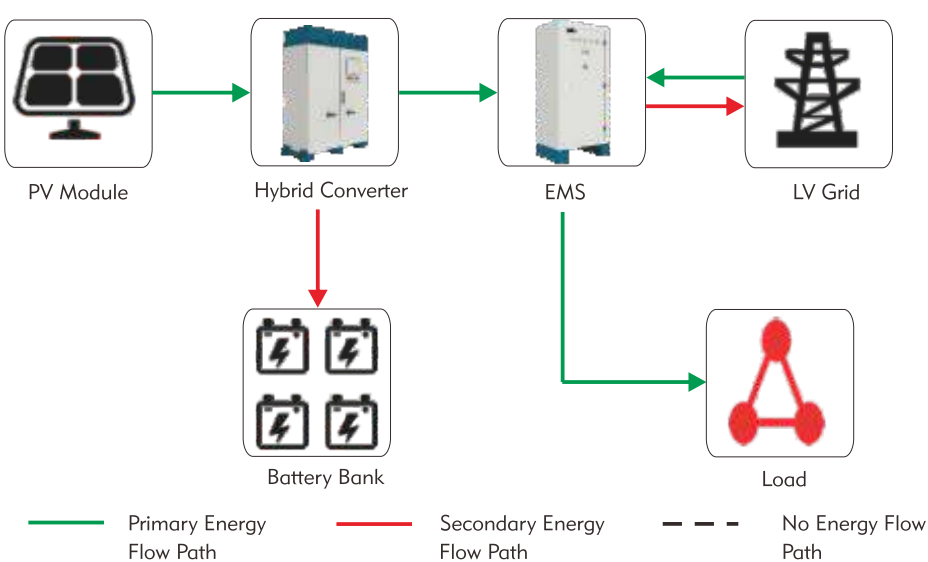
1/ Valley Mode

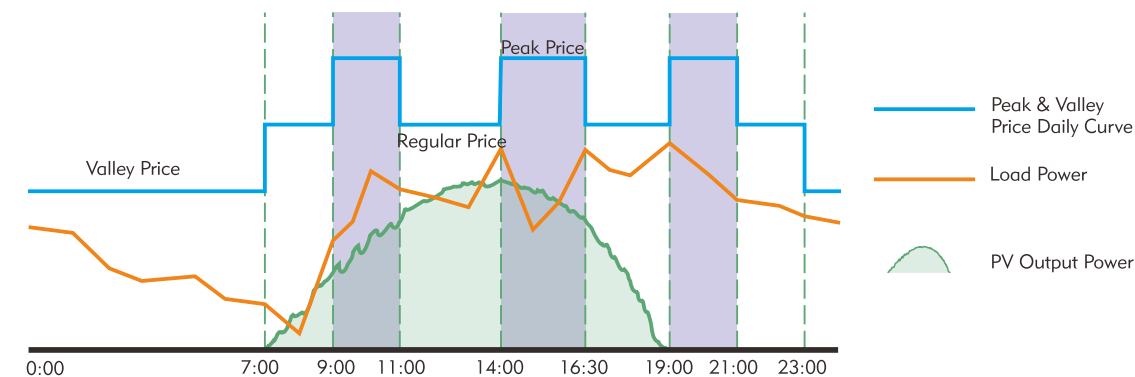
During valley price period (mid-night), no PV input power, the grid supplies power to the load and charges the battery at the same time ;



2/ Normal Mode

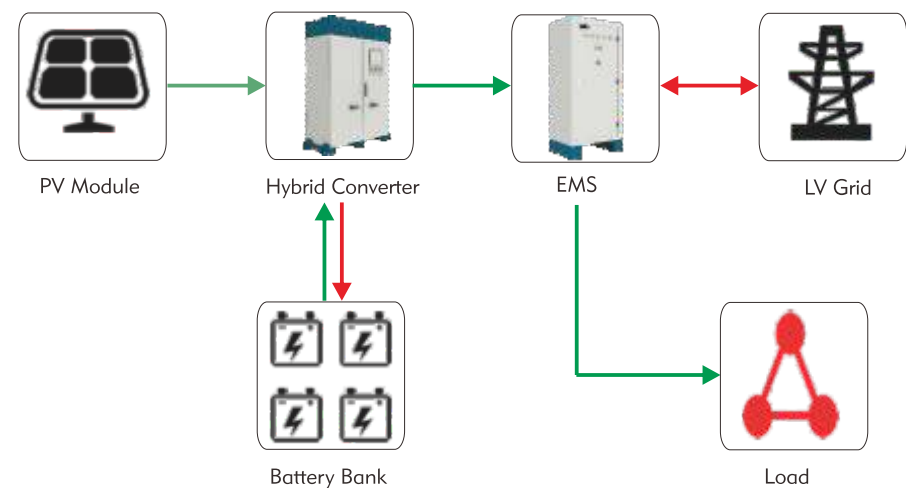
When the PV power is lower than the load demand, both PV and grid supply the power to load, battery is standby, not charge nor discharge;
 When the PV power is higher than the load demand, PV supply power to load first, extra power feed to grid.
 When the feeding grid power is over the allowed limit, the residual PV power will charge the battery;





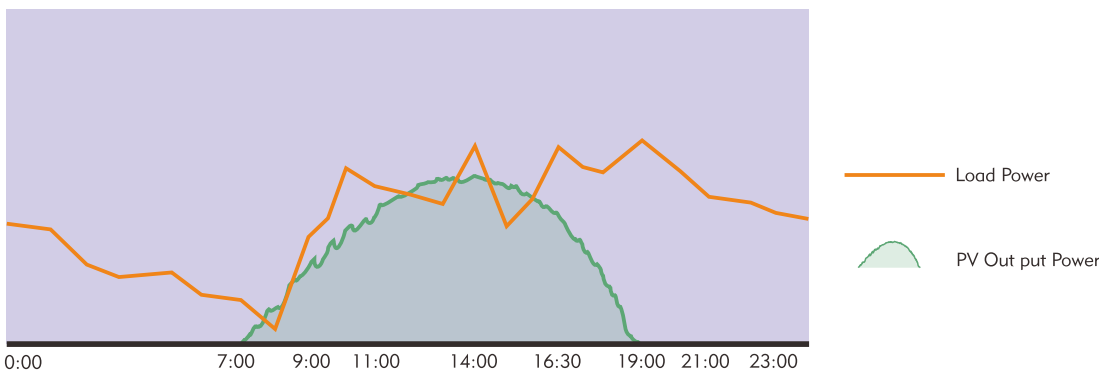
3/ Peak Mode

In this peak mode, when the PV power is under the load demand, both PV and battery work together to supply power to Load, if the battery energy is used out, PV and grid supply power to load;
When PV power is over the load power demand, PV supply power to load and extra power feed to grid;
When the feeding grid power is over the allowed limit, the residual PV power will charge the battery;



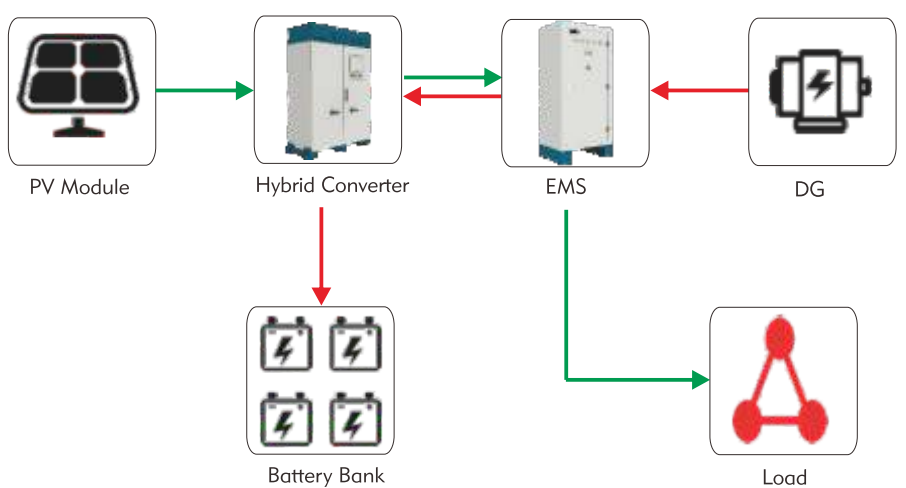
— Primary Energy Flow Path
— Secondary Energy Flow Path
- - - No Energy Flow Path

PV & Battery Hybrid, off grid operation mode



4/ Off Grid Mode

In this off grid mode, when the PV power is under the load demand, PV & battery power the load together;
When the battery energy is insufficient, start the diesel generator to support the load, in the mean time extra power of dg and PV power can charge battery;
If PV power is over the load demand, PV supply power to load, the residual PV power will charge the battery;



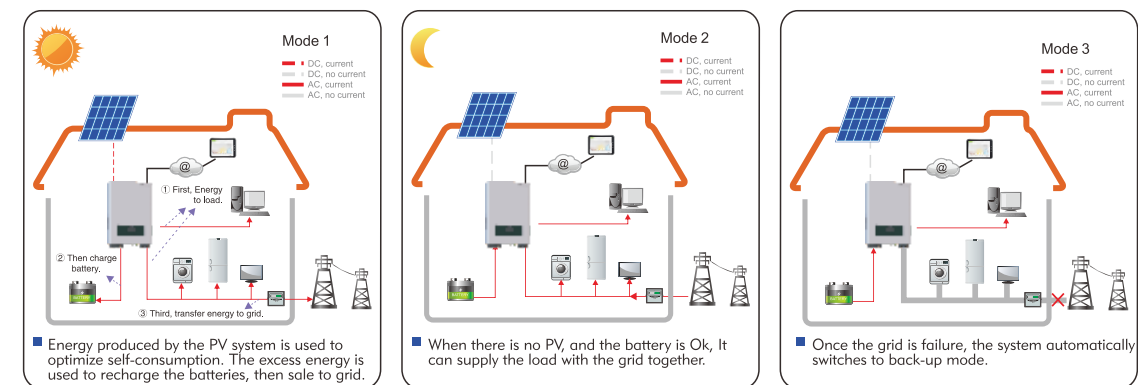
— Primary Energy Flow Path
— Secondary Energy Flow Path
- - - No Energy Flow Path

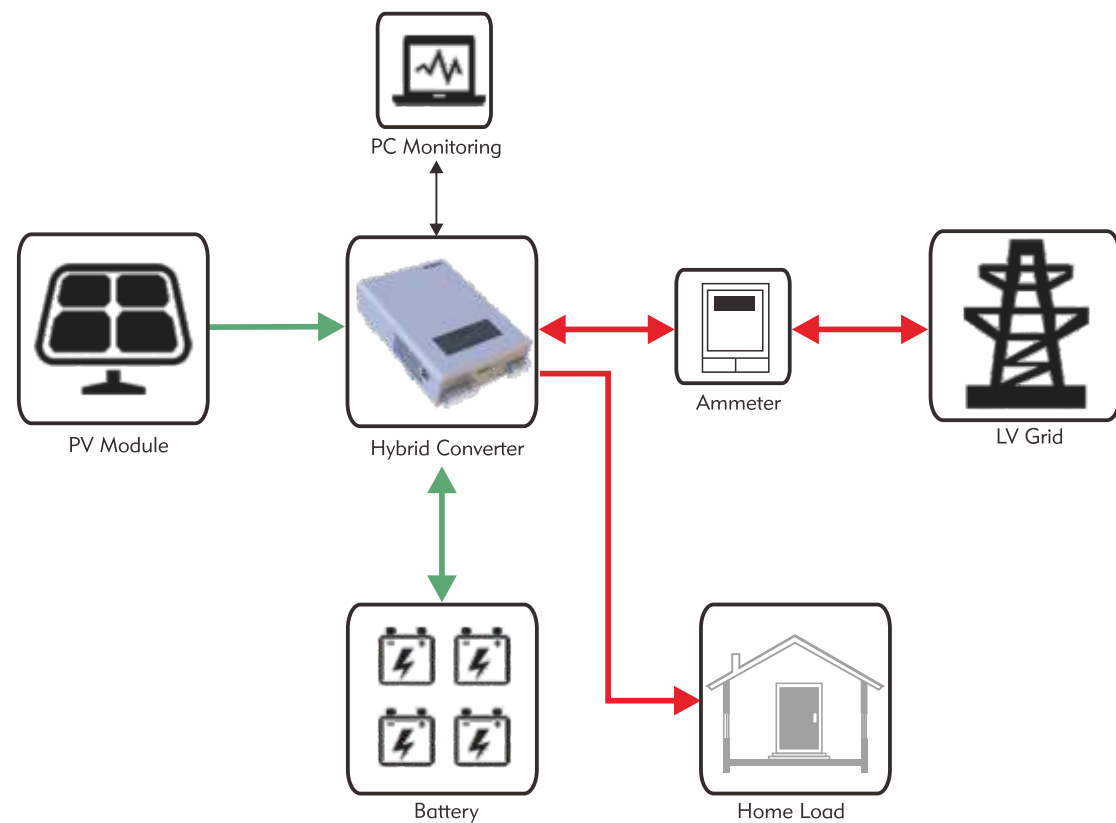
Solutions

ESS for Residential Applications

As leading Residential ESS designer and integrator, we developed, 3/5KW Inverter integrated with PV Charger to be connected detached Energy Storage Assembly for initial installations, PV and Energy Storage Assembly Converter for vast amount of existing On-grid PV Inverters and Integration of Inverter, PV Charger and Lithium ion battery.

How does it work?





Application Scenarios

- Home house, villa and other PV power generation application;
- A small commercial district, office, etc;
- Big step price between peak and valley period;
- Power grid instability or isolated island area;

System Highlights

- Support Multi Time-Segment & multi working mode flexible settings to meet the needs of various applications ;
- Small footprint, integrated vertical design of converter, battery and intelligent power distribution box;
- Adopts centralized management mode, integrates high intelligence EMS and BMS;
- Improve PV utilization ratio, optimize the renewable energy usage;
- Support smooth seamless switching between on grid and off grid mode, have emergency power supply function;

Applicable Products

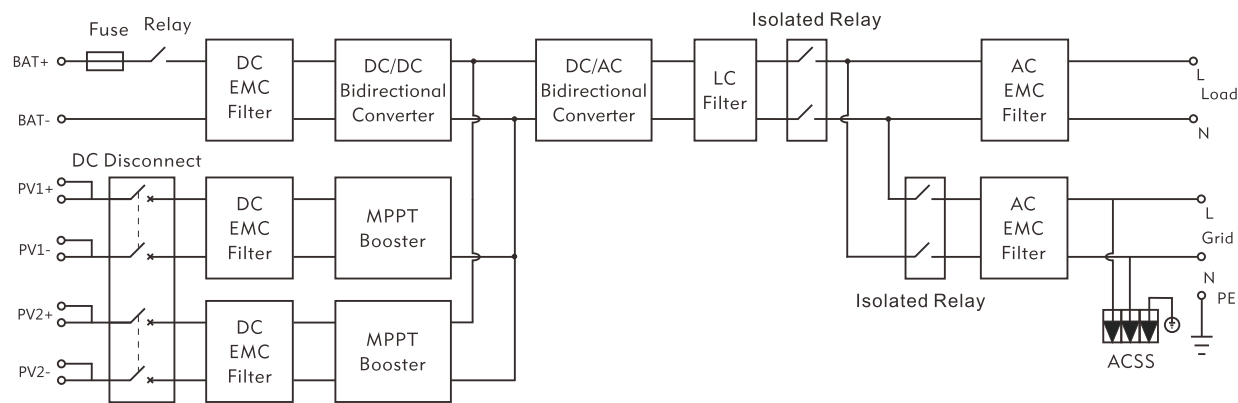
EHS3 EHS3.7 EHS4.6 EHS5 EHS10



Product Highlights

- ✓ PV & energy storage integrated design□PV module, battery bank, power grid and load access simultaneously;
- ✓ Direct DC coupling from PV to battery, higher conversion efficiency;
- ✓ Support On Grid and Off Grid Operation, built-in active and reactive control function;
- ✓ Integrated intelligent energy management system, Optimize the use of renewable energy;
- ✓ Wide DC input voltage, good for retired power battery echelon reuse.

EHS series converter electrical schematic diagram



Product Model	EHS3	EHS3.7	EHS4.6	EHS5	EHS10
PV Side					
Max Power	4kWp	5kWp	6kWp	6kWp	12kWp
Rated Voltage			360Vdc		
MPP Voltage Range			250-450Vdc		
Max Input Voltage			500Vdc		
Max Input Current		22Adc(11\11Adc)			
MPPT NO.			2		
Battery Side					
Rated Voltage			120Vdc		240Vdc
Operating Voltage Range			85-400Vdc		
Max DC Power			6kW		11kW
Max DC Current			54A		
Grid Side					
Rated Power	3kVA/3kW	3.7kVA/3.7kW	4.6kVA/4.6kW	5kVA/5kW	10kVA/10kW
Rated AC current	13A	16A	20A	21.7A	43.4A
Max AC Power	3.3kVA/3.3kW	4kVA/4kW	5kVA/5kW	5.5kVA/5.5kW	11kVA/11kW
Max AC Current	14.3A	17.4A	21.7A	24A	48A
Max THDI			<3%(Rate Power)		
Rated Grid Voltage			230Vac		
Grid Voltage Range			184-264Vac		
Rated Grid Frequency			50Hz		
Rated PF			>0.99		
PF Range			+/- 0.8		
EPS Output					
EPS Rated Power	4kVA/4kW	4kVA/4kW	5kVA/5kW	5kVA/5kW	10kVA/10kW
EPS Output Voltage			230Vac±1%		
EPS Output Current	17.4A	17.4A	21.7A	21.7A	43.4A
Peak Output Power	8kVA@10s	8kVA@10s	10kVA@10s	10kVA@10s	20kVA@10s
THDV			<2% (linear load)		
Switch Time			<500ms		
Efficiency					
PV- Grid			97.8%		
Battery- Grid			95%		
Common Parameters					
Topology	Transformer less				
Dimension (W * H * D)	480x680x178mm				
Weight	25kg				
Operation Temperature Range	-30°C- + 60°C (>45°C Derating)				
Standby Power Consumption	<10W				
Cooling	Forced air				
Protection Level	IP20				
Relative Humidity	0-95%(Non Condensing)				
Altitude	4000m				
Communication	RS485,WIFI, CAN, Ethernet				

Intelligent Power Distribution Box

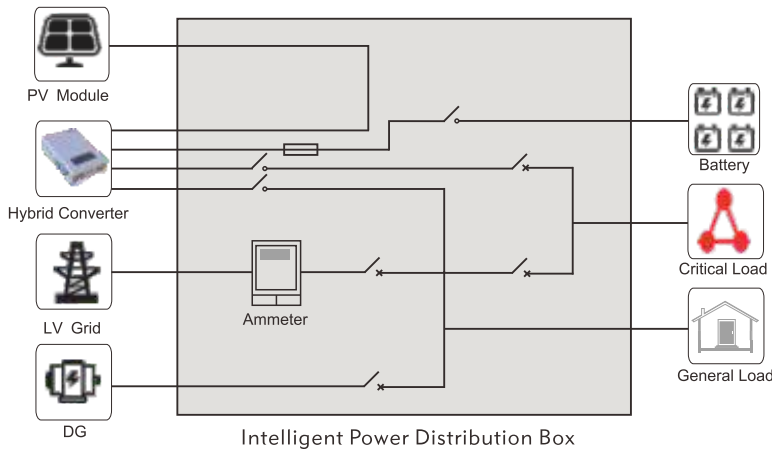


Product Features

- ✓ Suitable for household energy storage system applications;
- ✓ Smart meter real-time display grid power consumption;
- ✓ Support dual load output to ensure reliable power supply for critical load;
- ✓ Optional access port for diesel generator;
- ✓ Maintenance bypass function.

Product Model	EDC-EMS5	EDC-EMS10
Electrical Parameters		
Maximum PV Input Current	11A*2	11A*4
Maximum PV Input Voltage	600Vdc	
Rated Battery Input Voltage	120Vdc	240Vdc
Battery Voltage Range	96- 144Vdc	192- 288Vdc
Maximum Charge/Discharge Current	50A	50A
Rated Output Load Current(On Grid)	24A	48A
Rated Output Load Current(Off Grid)	24A	48A
Rated Grid Voltage	230Vac	
Rated Grid Frequency	50Hz	
Rated DG Input Voltage	230Vac	
Maximum DG Input Current	25A	50A
Common Parameters		
Dimension (W*H*D)	460x600x174mm	
Weight	20kg	
Operating Temperature Range	-30°C - + 60°C	
Protection Level	IP20	

Intelligent Power Distribution Box System Diagram





Product Features

- ✓ Elegant appearance, convenient wiring;
- ✓ Centralized management mode, touch screen real-time display, high intelligence;
- ✓ Flexible and convenient to move, suitable for family use;
- ✓ Small footprint, integrated vertical design of converter, battery and intelligent power distribution box;
- ✓ Support cloud monitoring via internet;



PV energy storage hybrid converter



Intelligent power distribution box



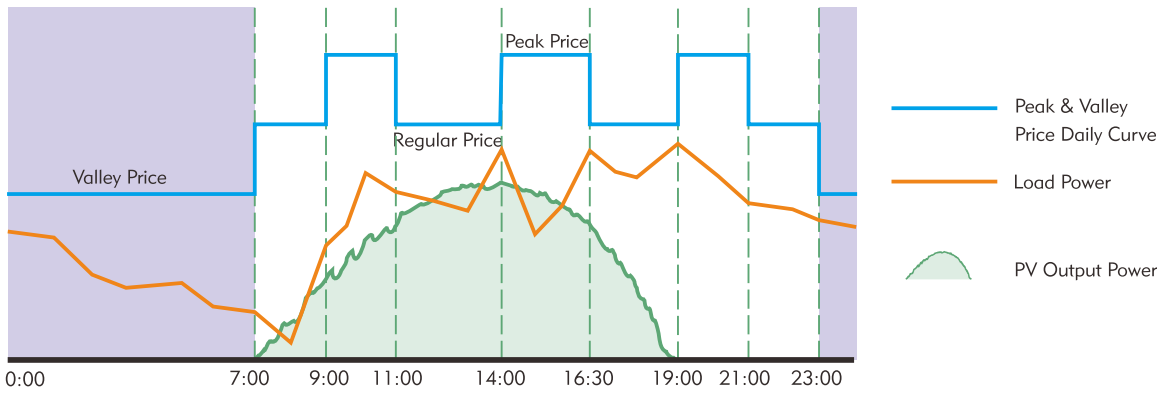
Energy storage battery system

Product Model	EHESS
PV Input	
Max Input Power	12kWp
MPPT Voltage Range	250Vdc-450Vdc
MPP No.	2
Battery Parameters	
Rated Battery Voltage	240Vdc
Battery Voltage Range	192Vdc-288Vdc
AC Parameters	
Max Output Power	11kW
Rated Grid Voltage	230Vac
AC Off Grid Parameters	
Rated Voltage	230Vac
Rated Frequency	50Hz
Rated Power	10kW
PF	±0.80
System Parameter	
Max Battery Capacity Of The System	12kWh
Installation Mode	Vertical Cabinet
Dimension (W*H*D)	600x600x1800mm
Weight	400kg
IP Level	IP20
Operating Temperature Range	-30°C-60°C
Human Machine Interface	
Display	7 Inch Touch screen display
Communication	RS485,WIFI,CAN,Ethernet

Typical Applications

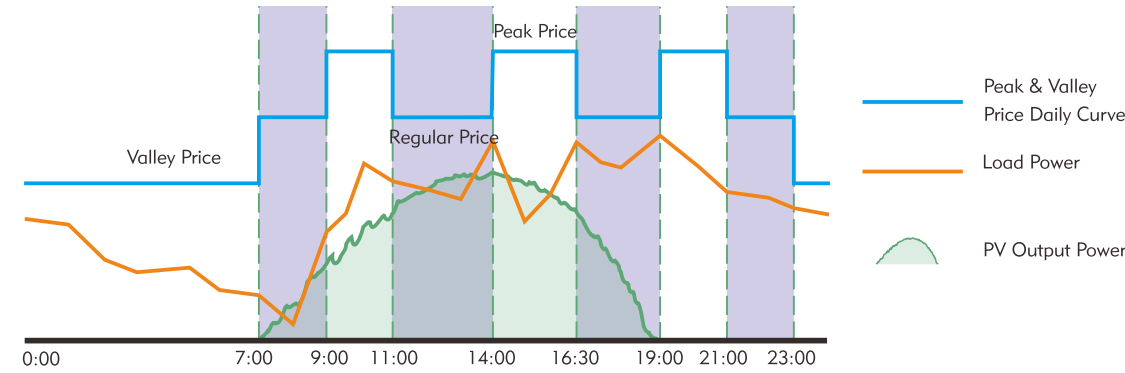
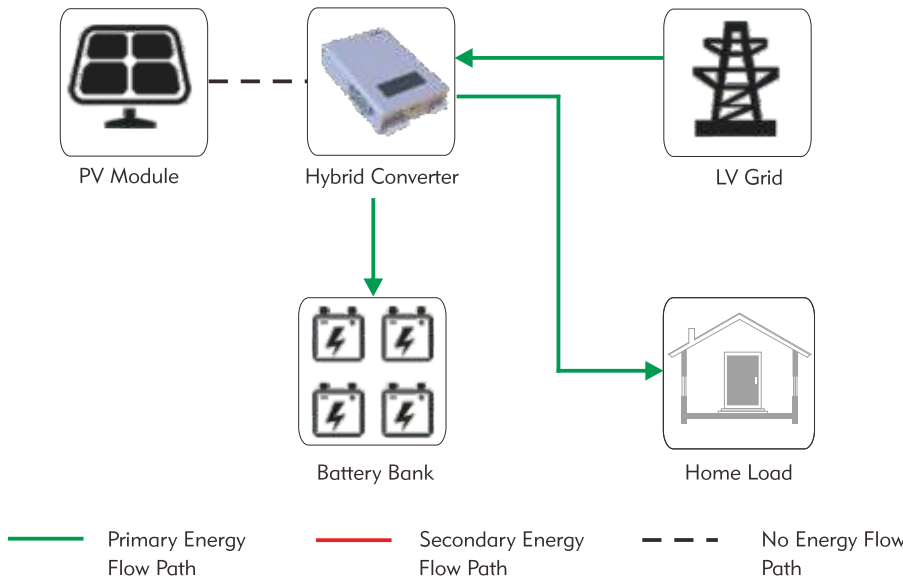


PV & Battery Hybrid, Peak Shaving & Valley Filling



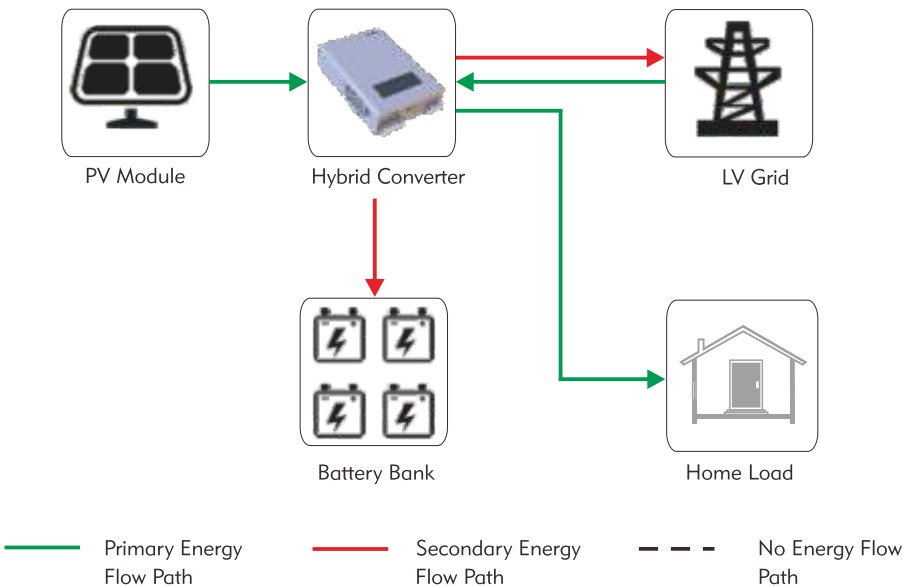
1/ Valley Mode

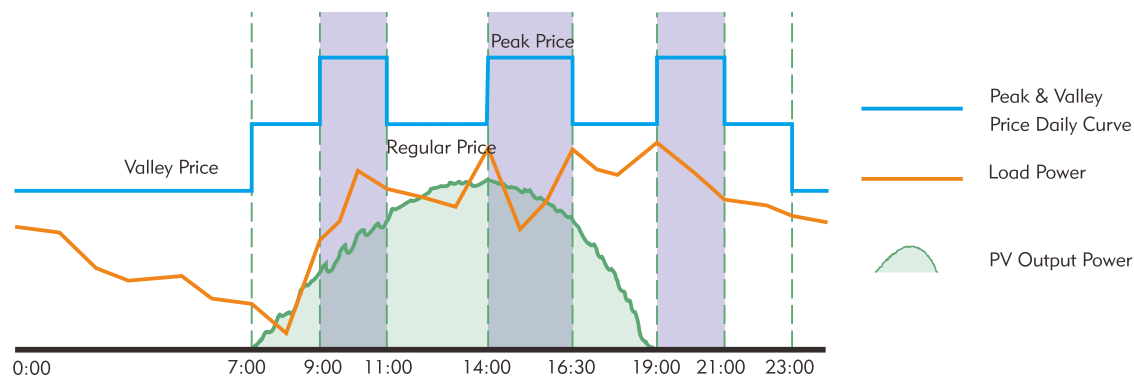
During valley price period (mid-night), no PV input power, the grid supplies power to the load and charges the battery at the same time;



2/ Normal Mode

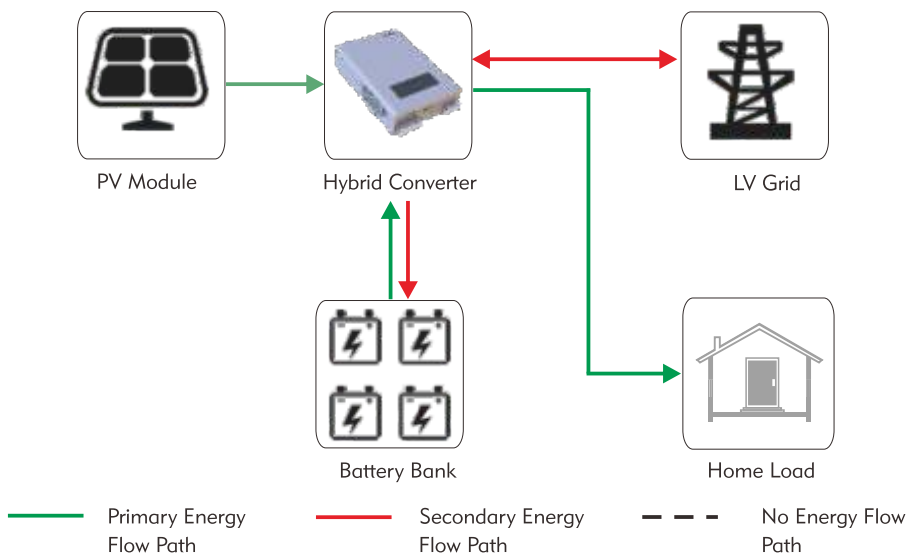
When the PV power is lower than the load demand, both PV and grid supply the power to load, battery is standby, not charge nor discharge;
When the PV power is higher than the load demand, PV supply power to load first, extra power feed to grid; When the feeding grid power is over the allowed limit, the residual PV power will charge the battery;



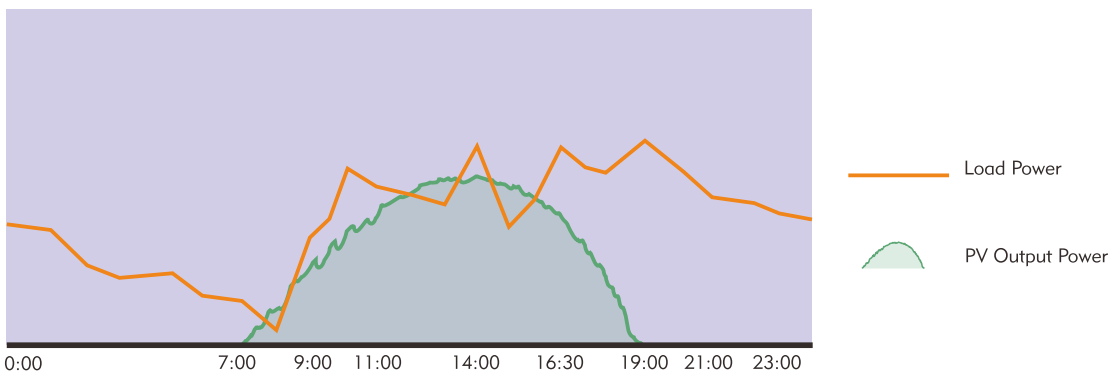


3/ Peak Mode

In this Peak mode, when the PV power is under the load demand, both PV and battery work together to supply power to load, if the battery energy is used out, PV and grid supply power to load;
When PV power is over the load power demand, PV supply power to load and extra power feed to grid; When the feeding grid power is over the allowed limit, the residual PV power will charge the battery;

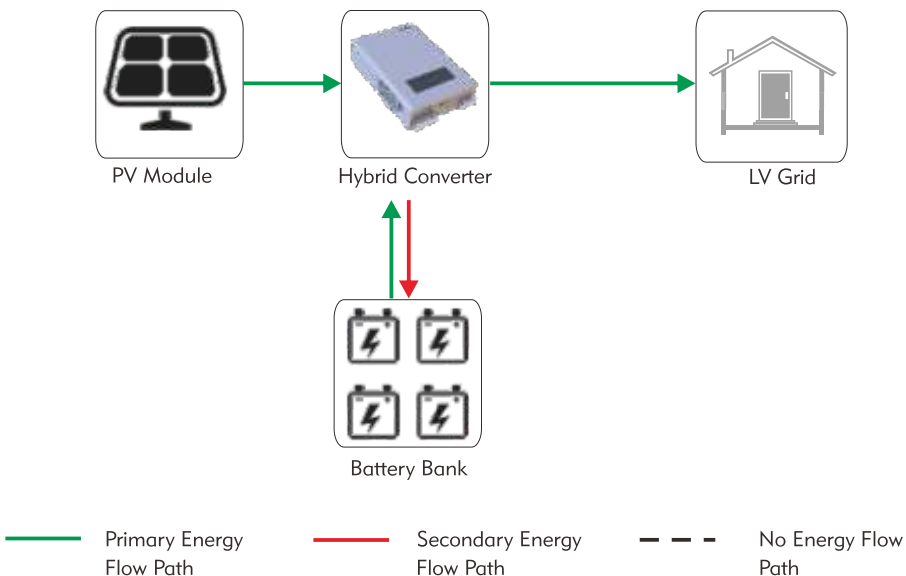


PV & Battery Hybrid, Off Grid Operation Mode



4/ Off Grid Operation Mode

Grid power is not available and PV power is lower than the load demand, PV and battery work together to supply the power to load;
If PV power is high and over the load demand, PV supply power to load, the residual PV power will charge the battery;





Lithium Battery

High Quality Lithium Battery Cell

Investigate enormously in the establishment of full-automacti Lithium Battery production based in Zhangzhou city, Fujian province and Xiangyang city, Hubei province. The annual production capacity is 16GWh.

Three Pack factories in Shanghai, Shenzhen and Shiyan focus on high quality lithium battery cell in application of EV and Energy Storage System.





18650 Cylindrical Lithium Ion Battery cell



Square aluminum-shell Lithium Ion Battery cell



Specifications

Battery Cell						
	Model	Dynacell -50Ah	Dynacell -115Ah	Dynacell 18650-26P	Dynacell 18650-29P	Dynacell 18650-32E
	Nominal Capacity	50Ah	120Ah	2600mAh	2900mAh	3200mAh
	Minimum Capacity	50Ah	115Ah	2450mAh	2750mAh	3050mAh
	Nominal Voltage	32V	32V	3.6V	3.6V	3.6V
	Material	LiFePO4	LiFePO4	NCM	NCM	NCM
Charge	Cut-off Voltage	3.65V	3.65V	4.2V	4.2V	4.2V
	Charge Current	10A(0.2C)	57.5A(0.5C)	1300A(0.5C)	1450A(0.5C)	1600A(0.5C)
	Max. continuous current	50A(1C)	230A(2C)	2600A(1C)	2900A(1C)	3200A(1C)
Discharge	Cut-off Voltage	2.0V	2.5V	2.75V	2.75V	2.75V
	Discharge Current	10A(0.2C)	115A(1C)	520mA(0.2C)	580mA(0.2C)	640mA(0.2C)
	Max. continuous current	150A(3C)	230A(2C)	5200mA(2C)	5800mA(2C)	6400mA(2C)
Cycle life	25°C	>5000	>5000	>3000	>3000	>3000

Applications

New Energy Vehicles

Renewable Energy System

FM Ancillary Service

Household Energy Storage

Lithium Battery

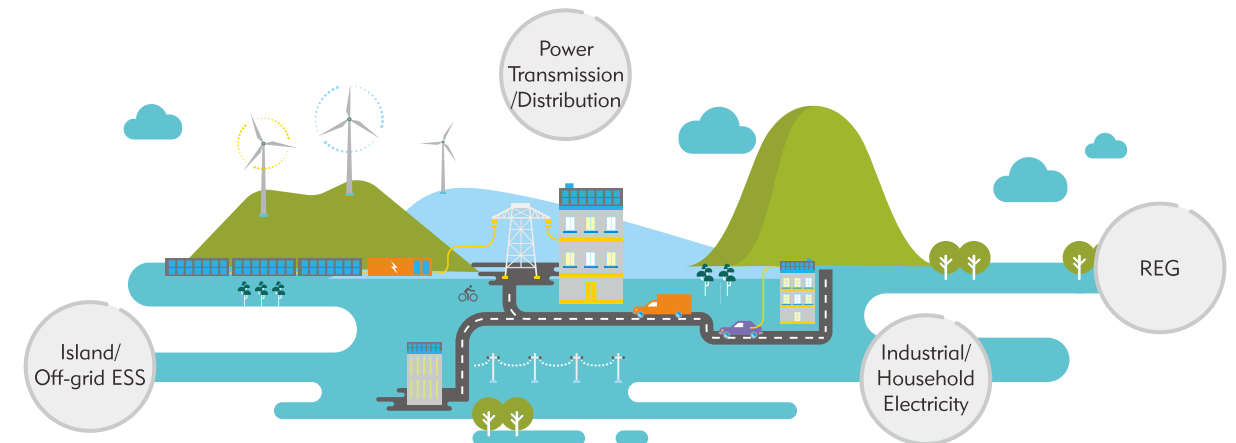
High Voltage Energy Storage System

This system with its modular design concept, enables the highest flexibility both for rack mounted and container based constructions, giving the flexibilities for customer to deploy the system nearly in any nodes in the grid, supporting the services such as emergency power, new energy stabilizer, energy shifting load shaving, grid stabilizer, frequency responding (under development).

With our deep experience in BESS (battery energy storage system), vertical industrial chain consolidation and fantastic ROI control, DYNAVOLT will be your trustable system in all ESS application.



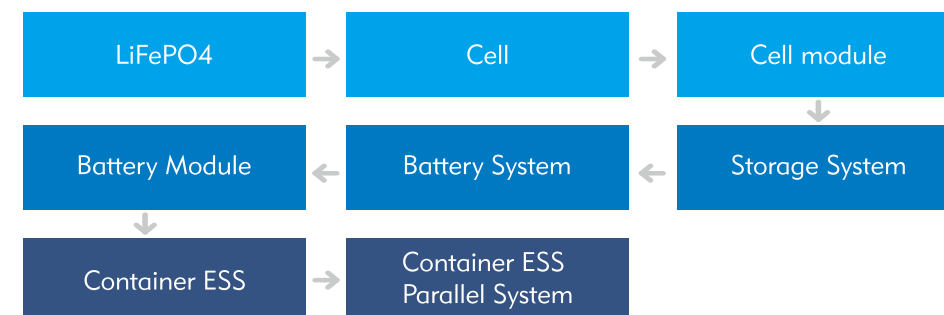
Applications



Key Features




- Modular design with different density, flexible voltage range from 150 VDC to 1000 VDC, suits all scenarios and easy maintenance;
- Three layer management system design delivers highest reliability;
- With LiFePO₄ battery cell, service life is more than 10years;
- T Rack mounted or container based system configuration with more flexible deployment;
- Certificates: TUV, CE, UN38.3 etc.





Components of Container ESS

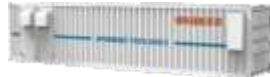



Specifications

Main Controller			
Model Name	ESC0500A-100S X1	ESC1000A-100S H1/H2	ESC1000A-200E M1
Controller Working Voltage	100-435Vdc	200-1000Vdc	200VAc
System Working Voltage	100-435Vdc	200-1000Vdc	0-1000Vdc
Charge Current (Max.)(A)	100	100	200
Discharge Voltage (Vdc)	100-435	200-1000	0-1000
Discharge Current (Max.)(A)	100	100	200
Self-Consumption Power (W)	8	8	10
Dimension(W*D*H,mm)	442x390x132	442x390x132	330x628x150.5
Communication	RS485/CAN	RS485/CAN	RS485/CAN
Protection Class	IP20	IP20	IP20
Weight (kg)	8.2	8.2	14.5
Operation Life	15years	15years	15years
Operation Temperature	-20-65°C	-20-65°C	-20-65°C
Storage Temperature	-40-80°C	-40-80°C	-40-80°C
Certificate	TUV(IEC62619)	TUV(IEC62619)	TUV(IEC62619)

Battery Module			
Model Name	EH48050	EH48070	EH32148
Capacity (kWh)	2.40	3.55	4.74
Nominal Voltage(Vdc)	48	48	32
Nominal Capacity (AH)	50	74	148
Voltage Range (Vdc)	45-54	45-54	30-36
Depth of Discharge	80%(10-90%)	80%(10-90%)	80%(10-90%)
Dimension (W*D*H,mm)	442x390x100	442x390x132	330x628x150.5
Communication	RS485/CAN	RS485/CAN	CAN
Protection Class	IP20	IP20	IP20
Weight (kg)	24	32	48
Operation Life	10+years	10+years	10+years
Operation Cycle Life	4000	4000	4000
Operation Temperature	0-50°C	0-50°C	0-50°C
Storage Temperature	-20-60°C	-20-60°C	-20-60°C
Certificate	TUV(IEC62619)	TUV(IEC62619)	TUV(IEC62619)

Energy Storage System				
Model Name	EDYNAESS-X1 (384V50AH)	EDYNAESS-H1 (672V50AH)	EDYNAESS-H2 (576V74AH)	EDYNAESS-M1 (736V148AH)
System Capacity (kWh)	19.20	33.60	42.62	108.93
Battery System Voltage(Vdc)	384	672	576	736
Battery System Capacity(AH)	50	50	74	148
Battery Module	H48050	H48050	H48074	H32148
Battery Module Capacity(kWh)	2.40	2.40	3.55	4.74
Battery Module Quantity(pcs)	8	14	12	23
Charge Upper-Voltage(Vdc)	432	756	648	828
Charge Current (Standard)	10	10	15	30
Charge Current (Normal)	25	25	37	74
Charge Current (Max.)	50	50	74	148
Discharge lower-Voltage(Vdc)	360	630	540	690
Efficiency	96%	96%	96%	96%
Depth of Discharge	80%(10-90%)	80%(10-90%)	80%(10-90%)	80%(10-90%)
Dimension(W*D*H,mm)	600x600x1600	600x600x2150	600x600x2150	815x659x2130
Weight (kg)	250	400	450	1250
Operation Life	10+years	10+years	10+years	10+years
Operation Cycle Life	3500	3500	3500	3500
Operation Temperature	0-50°C	0-50°C	0-50°C	10-40°C
Storage Temperature	-20-60°C	-20-60°C	-20-60°C	-20-60°C
Battery Modules Qty	3-8pcs	5-14pcs	5-12pcs	1-23pcs
Certificate	TUV(IEC62619)	TUV(IEC62619)	TUV(IEC62619)	TUV(IEC62619)

Container ESS		
Container		
Model Name	EDYNAESS-20H	EDYNAESS-40H
Battery Capacity (MWh)	1.3	2.6
Voltage Range (Vdc)	736(690-828)	736(690-828)
Dimension(W*D*H,m)	6.058x2.438x2.896	12.192x2.438x2.896
Weight (Tons)	18	35
Storage Temperature	-20-50°C	-20-50°C
Communication	CAN/RS485	CAN/RS485



Lithium Battery

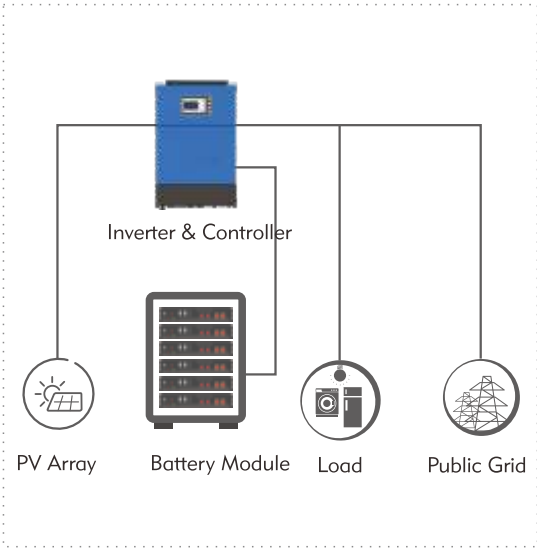
Household Energy Storage System



Specifications

- Developed with our own LFP battery cell to ensure the highest safety and most promising cycle life;
- Vertical industry integration ensures more than 4500 cycles with 90% DOD;
- Compact and fashionable design fits in your sweet home environment;
- Parallel operation up to 8units (Max. 48V400AH);
- Safety Certificates: TUV, CE, UN38.3;
- Self-design BMS protects the cell in all angels such as abnormal temperature, current, voltage, SOC, SOH;
- Communication: RS485, RS232, CAN;
- Support 100A (2C) charge/discharge current;
- Compatible with most of the available Hybrid inverters.

Solution




EUS2000 Household Energy Storage System is our new design with LiFePO4 battery and smart battery management system (BMS).With long service life, highest energy and power density and easiness of installation and expansion, it's suitable for daily charge/discharge application and provide the end users the best experience.



EUS2000

Specifications

	Battery Module	
Nominal	Nominal Voltage (V)	48
	Nominal Capacity (Ah)	50
Physical	Dimension (mm)	440x410x88.5
	Weight (kg)	24
Electric	Discharge Voltage (V)	45~54
	Charge Voltage (V)	52.5~54
	Max. Dishcharge Current (A)	100(2C)@1Min
	Rated Discharge Current (A)	25
	Max. Charge Current (A)	100(2C)@1Min
	Rated Charge Current (A)	25
Others	Working Temperature	0°C~5°C
	Certificate	TUV / CE / UN38.3 / TLC
	Communication Port	RS232,RS485,CAN
	Cycle life	>5000

Lithium Battery

Bi-directional EPCS




This EPCS achieves rectification via threephase full bridge converter and inverts battery DC to AC output or charge battery with AC input.

It's suitable for large & medium-sized new energy storage power station.



Specifications

	EPCS	
Nominal	Model Name	FP-500-T1
	Rated Output Power	500kW
	Max Input Power (KW)	550kW
	DC Voltage Range	590-690Vdc
	Max DC Current (Adc)	630VDC
	Rated DC Range	1000A
	Max AC Current (A)	800A
	Rated Output Frequency (Hz)	400V
Perform	Rated Output Voltage (Vac)	50Hz
	Transformer	Yes
	Altitude	0~95%
	Humidity	≤3000m
	Operating Temperature	-30℃~55℃
	Islanding Protection	Touch-sensitive display
	Display	VaciFac
	THD	<2%
	Regulating Reactive Power	PF-0.9~0.9, Reactive Capacity 220kVA-220kVA
	LVRT	GB19964-2012
	Communication	RS485 Modbus
	EMC	IEC61000-6-1/-2/-3/-4
	Grid Disturbance	IEC61000-3-2/-3
	Over-load	DIN VDE 0126
	Grid Testing	Adjust peak power automatically
	Self-consumption	<50W
	DC Voltage Ripple	Vpp<5%
	Protection Level	IP20
Efficiency	Max. Efficiency	98.70%≥
	European Efficiency	98.50%≥