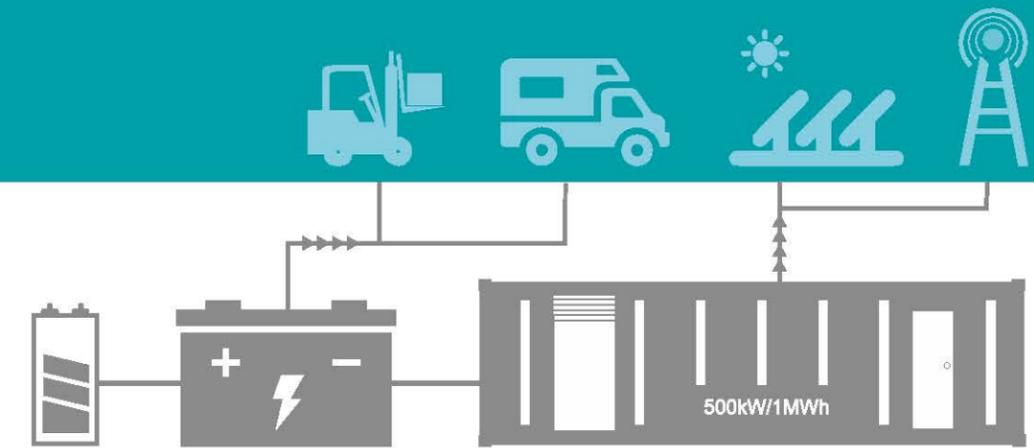




# LITHIUM BATTERY

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Stock code: 002139



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## TOPBAND

CATALOGUE

- 1** Company Profile .....02
- 2** Cell .....05
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COMPANY PROFILE



**Background**  
 Founded in 2006, a wholly owned subsidiary of Topband Group.



**Location**  
 Headquarters and R & D center :Shenzhen, production base :Huizhou,



**Capacity**  
 Employees exceed 5000. factory area is 100,000m<sup>2</sup> square meters, the core production capacity is 3Gwh.



**Certification**  
 ISO9001,ISO14001,IATF16949, OHSAS18001,UL, CE,UN38.3, TUV.

# QUALITY CERTIFICATION



# Production Equipment





# CELLS



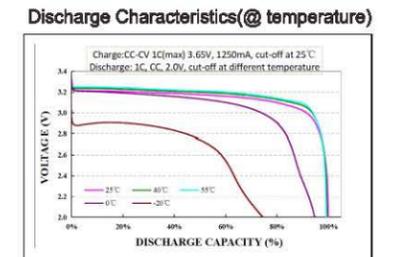
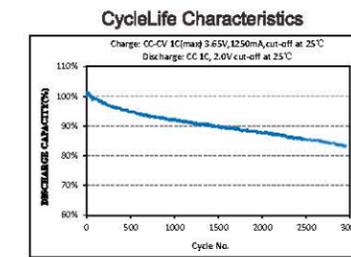
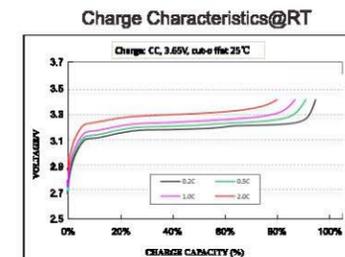
## Specification

Item/Model	20Ah	25Ah
Nominal voltage	3.2V	3.2V
Capacity	20Ah	25Ah
Impedance	≤4mΩ	≤4mΩ
Charge Voltage	3.65V	3.65V
Continuous discharge current	3C	3C
Peak discharge current	5C/10S	5C/10S
Storage Temperature	-10 ~ 30°C	-10 ~ 30°C
Cycle life(100%DOD)	≥3000(1C/1C)	≥3000(1C/1C)
Weight	520±20g	650±20g
Dimension	27x70x145mm	27x70x180mm

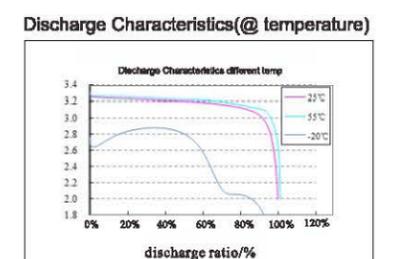
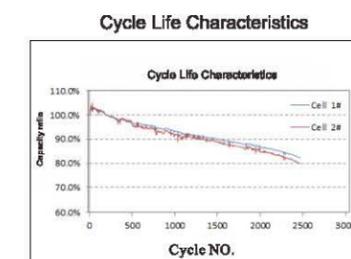
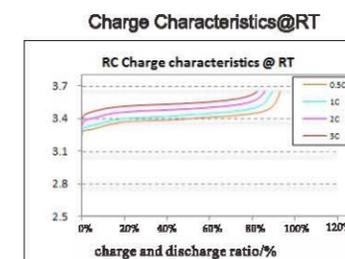
Item/Model	50Ah	100Ah
Nominal voltage	3.2V	3.2V
Capacity	50Ah	100Ah
Impedance	≤2mΩ	≤0.4mΩ
Charge Voltage	3.65V	3.65V
Continuous discharge current	3C	3C
Peak discharge current	5C/10S	5C /10S
Discharge Temperature	-20 ~ 55°C	-20 ~ 55°C
Cycle life(100%DOD)	≥2000(1C/1C)	≥2000(1C/1C)
Weight	1280±20g	2600±20g
Dimension	32×173×128mm	174 x48 x170mm

## Cell Performance Graph

### 25Ah



### 100Ah



# PACK ABILITY

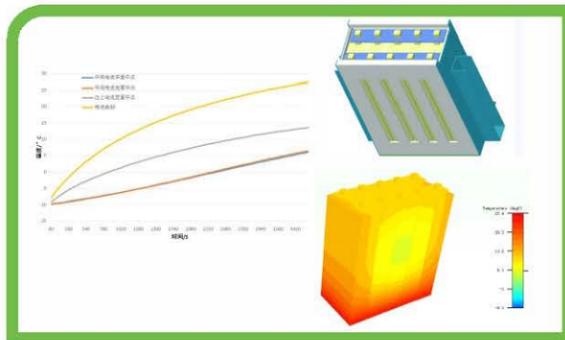
## Module design



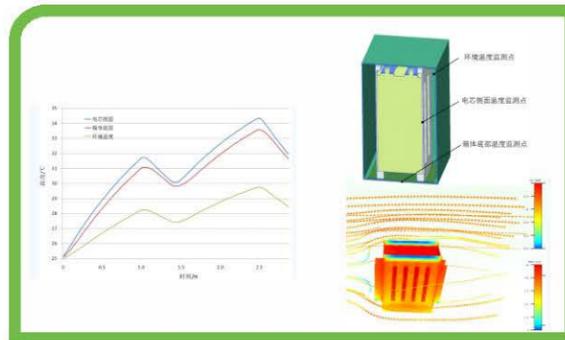
### ► Features

- Resistant to vibration and shock
- Multiple series and parallel configuration
- Good tightness and free maintenance
- Material stable and Flame-retardant V0
- Heating/Cooling device at the bottom
- Cells matching group with multiple parameters unified, better improve system consistency
- Collecting temperature and voltage by soldering

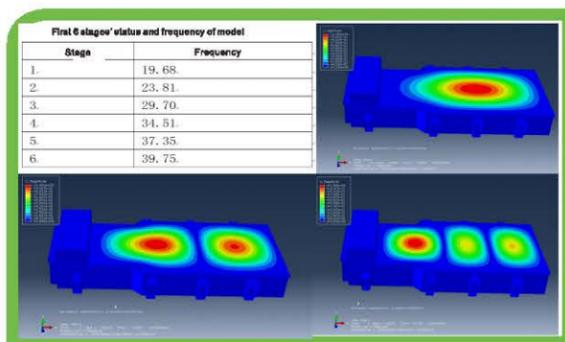
## Pack energetic simulation analysis



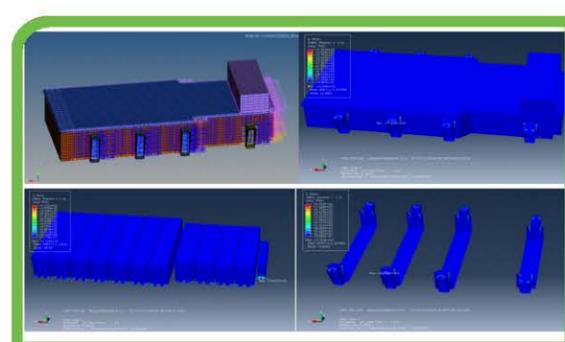
Module heating temperature simulation



Module charge & discharge temperature simulation



Pack status analysis



Pack shock analysis

# BMS

Topband insists on technology creates value. Focusing on intelligent control industrial for many years, we provide safe, reliable BMS solutions for different applications.



### E-vehicles Series

According to ISO26262 ASIL C level



### Energy Storage Series

Multi- framework, safe, stable, reliable



### Backup Power Series

Super earthquake-resistant and high-low temp. performance

# BATTERY PACK



## 12V Series

Model	Nominal voltage	Typical capacity	Charge current	Constant discharge current / Peak current(3s)	Weight	Dimension (L*W*H)
TB1206F	12V	6Ah	6A	6A/30A	0.83kg	151*65*95mm
TB1209F	12V	9Ah	9A	9A/35A	1.15kg	151*65*95mm
TB1210F	12V	10Ah	10A	15A/35A	1.5kg	142*80*80mm
TB1212F	12V	12Ah	12A	15A/60A	1.6kg	151*98*95mm
TB1215F	12V	15Ah	15A	15A/60A	1.9kg	151*98*95mm
TB1220F	12V	20Ah	20A	30A/68A	3.0kg	180*76*166mm
TB1224F	12V	24Ah	24A	30A/68A	3.0kg	180*76*166mm
TB1225F	12V	25Ah	25A	30A/68A	3.0kg	116*100*200mm
TB1230F	12V	30Ah	30A	30A/150A	5.3kg	196*165*174mm
TB1240F	12V	40Ah	40A	50A/170A	6.35kg	196*165*174mm
TB1250F	12V	50Ah	50A	50A/170A	6.5kg	196*165*174mm
TB1260F	12V	60Ah	50A	50A/170A	8.5kg	260*167*211mm
TB1275F	12V	75Ah	50A	50A/150A	9.8kg	260*168*213mm
TB1280F	12V	80Ah	80A	100A/350A	12.1kg	318*165*215mm
TB12100F	12V	100Ah	80A	100A/350A	12.3kg	318*165*215mm
TB12125F	12V	125Ah	80A	100A/350A	15.0kg	318*165*215mm
TB12150F	12V	150Ah	80A	100A/350A	19.8kg	485*170*245mm
TB12200F	12V	200Ah	80A	100A/350A	25.0kg	485*170*245mm
TB12300F	12V	300Ah	80A	100A/350A	35.0kg	520*221*269mm

## 24V Series

Model	Nominal voltage	Typical capacity	Charge current	Constant discharge current / Peak current(3s)	Weight	Dimension (L*W*H)
TB2410F	24V	10Ah	6A	15A/55A	2.95kg	180*76*166mm
TB2412F	24V	12Ah	12A	15A/50A	2.8kg	180*80*150mm
TB2420F	24V	20Ah	20A	20A/85A	6.5kg	196*165*174mm
TB2425F	24V	25Ah	25A	25A/85A	6.5kg	196*165*174mm
TB2450F	24V	50Ah	50A	50A/140A	12.0kg	318*165*215mm
TB24100F	24V	100Ah	80A	100A/300A	24.2kg	485*170*245mm
TB24125F	24V	125Ah	80A	100A/350A	32.2kg	518*271*222mm
TB24150F	24V	150Ah	80A	100A/300A	35.0kg	520*221*269mm
TB24200F	24V	200Ah	100A	200A/350A	60.6kg	605*490*155mm
TB24300F	24V	300Ah	100A	175A/450A	85.0kg	602*530*202mm



## 48V Series

Model	Nominal voltage	Typical capacity	Charge current	Constant discharge current / Peak current(3s)	Weight	Dimension (L*W*H)
TB4810N	48V	10Ah	10A	20A/60A	2.8kg	274*151*41.5mm
TB4812F	48V	12Ah	10A	10A/50A	6.5kg	335*195*89mm
TB4820F	48V	20Ah	6A	20A/75A	9.1kg	250*150*170mm
TB4825F	48V	25Ah	15A	50A/115A	12.2kg	318*165*215mm
TB4850F(3U)	48V	50Ah	25A	50A/120A	28kg	482*360*132mm
TB4860F	48V	60Ah	30A	60A/100A	31kg	503*240*222mm
TB4875F	48V	75Ah	60A	100A/350A	47kg	520*269*221mm
TB48100F	48V	100Ah	50A	50A/150A	56kg	482*470*200mm
TB48200F	48V	200Ah	100A	150A/200A	125kg	552*400*400mm
TB48300F	48V	300Ah	150A	300A/350A	200kg	721*403*431.5mm
TB48400F	48V	400Ah	200A	200A/350A	333kg	800*600*1200mm
TB48600F	48V	600Ah	200A	200A/350A	454kg	800*600*1600mm



## Bluetooth Battery or WiFi Battery

Model	Nominal voltage	Typical capacity	Charge current	Constant discharge current/ Peak current(3s)	Weight	Dimension (L*W*H)
TB-BL1209F	12V	9Ah	9A	9A/35A	1.2kg	150*65*95mm
TB-BL1212F	12V	12Ah	12A	15A/60A	1.6kg	150*97*96mm
TB-BL1220F	12V	20Ah	20A	30A/68A	3.0kg	180*75*165mm
TB-BL1222F	12V	22Ah	20A	30A/68A	3.0kg	180*75*165mm
TB-BL1224F	12V	24Ah	20A	30A/55A	3.0kg	180*75*165mm
TB-BL1250F	12V	50Ah	50A	50A/150A	6.5kg	196*165*174mm
TB-BL1275F	12V	75Ah	50A	75A/350A	9.6kg	318*165*215mm
TB-BL12100F	12V	100Ah	100A	100A/350A	12.3kg	318*165*215mm
TB-BL12125F	12V	125Ah	100A	100A/350A	14.8kg	318*165*215mm
TB-BL12150F	12V	150Ah	100A	100A/350A	19.8kg	485*170*245mm
TB-BL12200F	12V	200Ah	100A	100A/350A	24.2kg	485*170*245mm
TB-BL12300F	12V	300Ah	100A	100A/350A	37.7kg	520*269*221mm
TB-BL2450F	24V	50Ah	50A	50A/140A	12.3kg	318*165*215mm
TB-BL24100F	24V	100Ah	50A	80A/350A	32kg	352*337*220mm

# LOW TEMPERATURE LITHIUM BATTERY

## ► Features

Low temperature operation: Core with heating device, to ensure normal charging below -20 °C, for modes from 100Ah to 300Ah .

## ► Specification

Item/Model	12100F-M110A_HEAT
Normal capacity	100Ah
Nominal energy	1.28KWh
Nominal voltage	12V (LFP-4S)
Internal resistance	≤40mΩ @1kHz AC
Normal charge voltage	14.6±0.5V
Allowed MAX charge current	100A
Recommended charge current	100A
Discharge temperature	-20°C ~ 60°C
Charging Temperature	0°C ~ 45°C
End of discharge voltage	10.0V
Dimension	318x165x215mm



# HIGH CURRENT SERIES

## ► Features

- High current capability
- With pre-charge feature to handle high inrush current
- Compatible with various inverters
- Support max 4pcs in parallel or max 4pcs in series



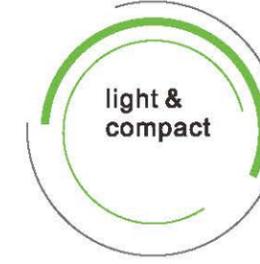
## ► Specification

Item/Model	12V100Ah	12V150Ah	12V200Ah	12V300Ah
Charge current	80A	120A	150A	150A
Discharge current	100A	150A	200A	200A
Peak discharge current(3s)	350A	500A	500A	500A
Nominal Voltage	12.8V	12.8V	12.8V	12.8V
Internal resistance	≤30mΩ	≤20mΩ	≤20mΩ	≤20mΩ
Weight	12.3Kg	19.8Kg	24.2Kg	37.7Kg
Dimension	318x165x215mm	485x170x240mm	485x170x240mm	518x271x222mm

# COMMUNICATION BACKUP POWER SOLUTION

The 48V series lithium iron phosphate battery are widely used in communication base stations, intelligent computer rooms, public security monitoring and other fields.

## ► Features



## ► Specification

Item/Model	TB4820F-T110	TB4850F-T110	TB48100F-T105G
Nominal voltage	48V	48V	48V
Capacity	20Ah	50Ah	100Ah
Impedance	≤80mΩ	≤40mΩ	≤25mΩ
Storage temperature	0~45°C	0~45°C	0~45°C
Discharge current	20A	50A	50A
Charging current	≤10A	50A	50A
Weight	15.5±0.5kg	28kg	56kg
Dimension	482x330x88mm	375x482x133mm(3U)	482x480x200mm

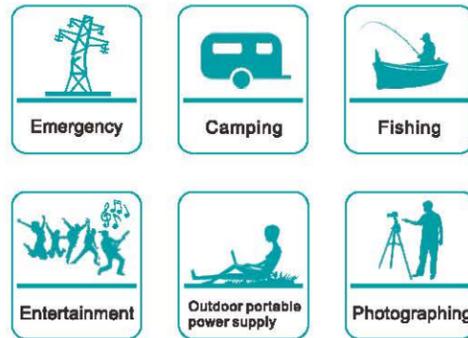


## PORTABLE POWER STATION

TB1250N-T500W Portable Power Station is small, fashion, and convenient to carry. It can support power supply for many home appliances for emergency situation and can also meet the electricity demand of various outdoor operations and automobile tour.

### ► Features

-  **Solar Energy/Car Charge/AC Charge**  
Adopts single silicon, conversion rate 17%
-  **600Wh ultra-large capacity**  
Strong endurance, long power-on time
-  **With built-in high configuration lithium battery**  
High temperature resistance, safety
-  **Protections**  
Overcharge, over discharge, over current, overload, over-temperature, short-circuit protection
-  **Portable**  
Light weight, laptop size, easy to carry



### ► Specification

Item/Model	TB1250N-T500W
DC charge voltage	13.5V-18V
AC output max continuous output power	500W
Output voltage	110Vac /220V±10%
Max DC output current	8A(VCD)
AC adapter charge voltage	13.5V
DC output voltage	DC12V±5%
USB DC 5V output voltage	DC5V±5%
Net weight	9.2KG
Size	385*280*150mm

## BACKUP UPS ESS

### ► Features

-  Integrated, small, light, energy-saving and eco-friendly
-  Intelligent centralized monitoring, maintenance and management
-  Convenient operation, standardized cabinet installation



**Applications:**  
Large network room, railway traffic power supply, medical institute, communication service room and IDC room.

### ► Specification

Item/Model	TB-512200F
Nominal voltage	512V
Capacity	200Ah
Impedance	≤100mΩ
Power	5000W
Discharge temperature	-20°C ~ 55°C
Cycle life	≥ 4000(80%DOD)
Dimension	800x840x2100mm



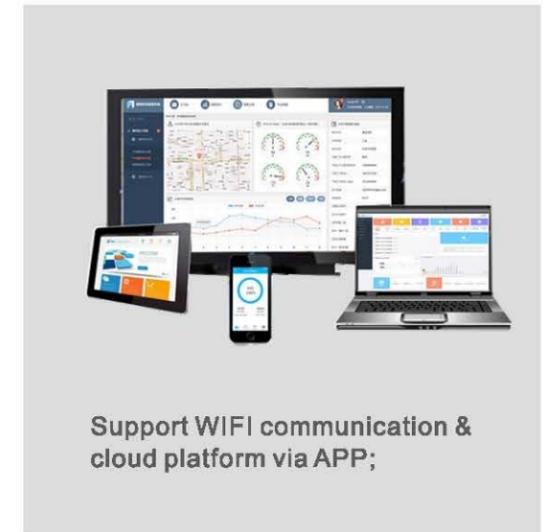
## RESIDENTIAL LITHIUM ENERGY STORAGE SYSTEM



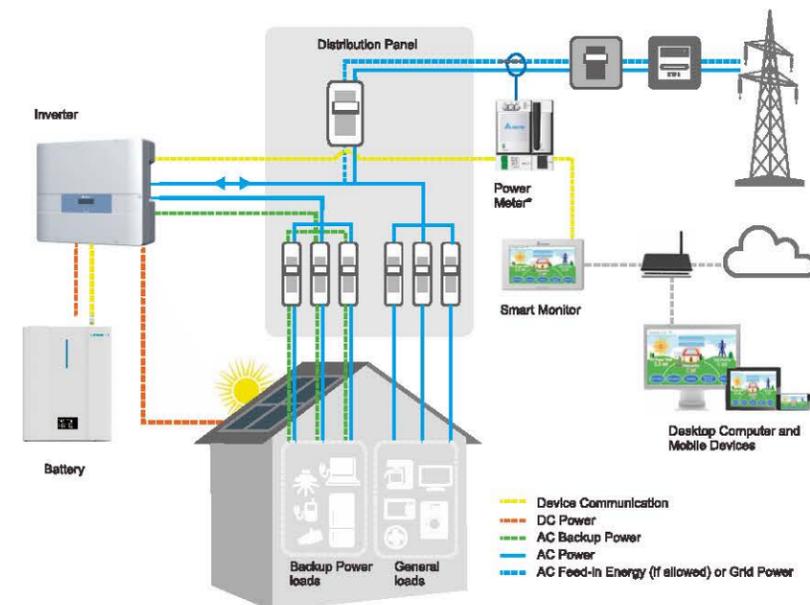
This battery pack is widely used for residential energy storage systems, for both off-grid and grid-tied applications. The pack can communicate with other devices via Modbus RS485 or CAN. Through the APP and cloud platform, the product status can be remotely monitored.

### ► Specification

Item/Model	TB51150F-T110A
Nominal voltage	51.2V
Nominal capacity	150Ah
Nominal energy	7.68KWh
Chemistry	LiFePO4
Operation voltage range	40~58.4V
Allowed Max charging power	7KW
Allowed Max discharging power	7.5KW
Cycle life (DOD80%)	≥2000cycles
Battery module size	758x617x220mm
Environmental Conditions	
Humidity Range	10%-90%RH
Cooling	Natural cooling
Storage Temperature & Humidity Range	-10-30℃
Installation Altitude(above sea level)	<2,000m



### ► How it works



\*1 phase or 3 phase Power Meter models available with optional Wi-Fi Module to allow wireless communication with the Smart Monitor

- High safety LiFePO4 battery
- Modular expansion
- Easy installation
- Surpe overall efficiency
- ≥4000cycles
- LCD&LED display
- Modbus RS485 communication

# LARGE CONTAINER ESS

## ► Features



Mature module design and simple construction



Smart temperature control



Smart interface ,real time monitor and easy operation



Large Capacity ,energy conversion efficiency >95%



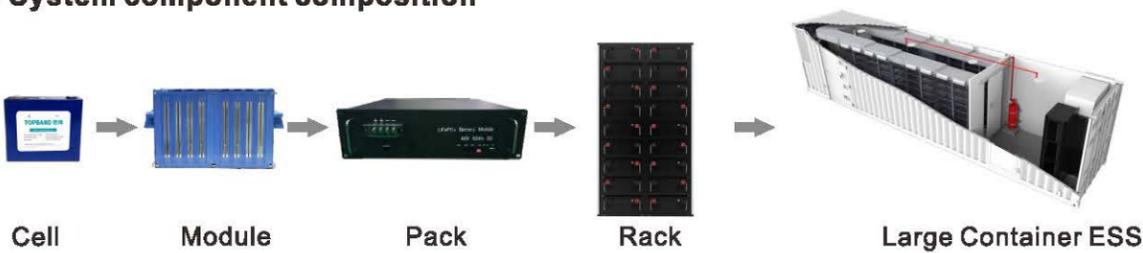
Positive battery management system technology



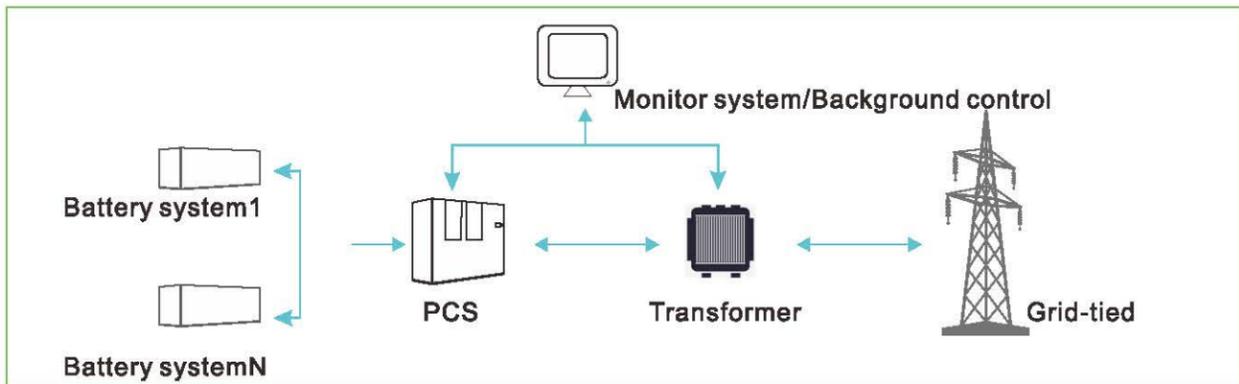
Multiple management and easy to upgrade



## ► System component composition



## ► Working mode



## ► Specification

Item	
ESS capacity	1MWh
Nominal discharging power	500KW
Nominal output voltage	380VAC
Output voltage range	323-418VAC
Frequency range	49.5Hz-50.5Hz
Output connection mode	Three-phase and four-wire
Total current harmonic distortion rate	< 3%
Environment temperature	-20°C~55°C
Working temperature	10°C~40°C
Installation altitude	≤2000m
IP rate	IP54
Container dimension	12192*2438*2896mm
Weight	25T

## ► Applications



# BATTERY APPLICATION

- 1 RV/Caravan/Motorhome/Camping car
- 2 Cleaning machine
- 3 Golf cart/Trolley
- 4 Telecoms
- 5 Solar power systems
- 6 Solar street LED lights
- 7 Forklift
- 8 Marine / Boat



1



4



7



3



6



2



5



8