



LITHIUM BATTERY

GREEN ENERGY GREEN FUTURE



COMPANY PROFILE

Brief Introduction

Tai Energy Co.,Ltd is a comprehensive and high-tech photovoltaic enterprise being engaged in the R&D, production and sales of solar products.As one of the leading pioneers of solar panel, solar inverter, solar controller research &development, production &sales in China

Tai Energy boasts to possess many national patents in line with the designing concept of easy usage, convenient maintenance and reliable quality.

We with professional R&D team and Advanced automated PV production line located at Tai'an City, Shandong province, and high quality solar inverter &solar controller production line at Foshan city, Guangdong province,and top quality lithium battery production line at Yangzhou city,Jiangsu Province.

Products

The scope of our business includes solar panels, solar inverter, solar controller, Lithium Battery, and professional solar system solutions and so on.

Sales Market

Featured as the most comprehensive &professional ones in the industry, our products are popular in such countries and regions as Caribbean regions countries Haiti, Honduras, Guatemala, Nicaragua, EL Salvador, South America countries like Panama, Peru, Colombia, Ecuador, Chile, and south asia and Africa countries etc.

Certification

Tai Energy owns advanced production and testing equipments, talented R&D teams, professional quality controlling and excellent marketing staffs. The company devotes itself to provide customers reliable products, efficient services, professional solutions as well as customized services of OEM&ODM, appearance designs and packages of products.

The company already own ISO9001: 2000, CE, TUV, IEC, UL etc. international quality authentication.

Future Development

Green Energy, Green Future,Make the company as one first leading and world famous enterprise in the industry and a complete solar manufacturer with certain competition and influence in the world, and make greater contribution to energy saving and emission reduction, new energy source construction in global. We sincerely expect to do our contribution to the global environmental protection industry together with you.

FACTORY TOUR



TAIAN TAI ENERGY CO.,LTD

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12.8V SERIES LIFEPO4

DEEP CYCLE LITHIUM BATTERY



HIGH QUALITY ABS MATERIALS

- The ABS crash resistance, heat reflow temperature resistant.
- Now it is being widely used in many areas.

SERIES PARALLEL CONNECTION

- Series System voltage: 51.2V Amp hour capacity: 200AH
- Parallel System voltage: 12V Amp hour capacity: 400AH

Cells Options

Ganfeng Lithium
赣锋锂业
CATL 宁德时代

REPT
瑞浦兰钧
LISHEN

CALB
中创新航
EVE 亿纬锂能

HTHIUM
Envision
远景能源

国轩高科
GUOXUAN HIGH-TECH
SUNWODA
欣旺达

鹏辉
GREAT POWER

Battery BMS supports simultaneous communication and docking with multiple inverter brands

MUST
TBS POWER

SMA
victron energy

Deye
派能科技

MEGAREVO
LUPOWERTEK

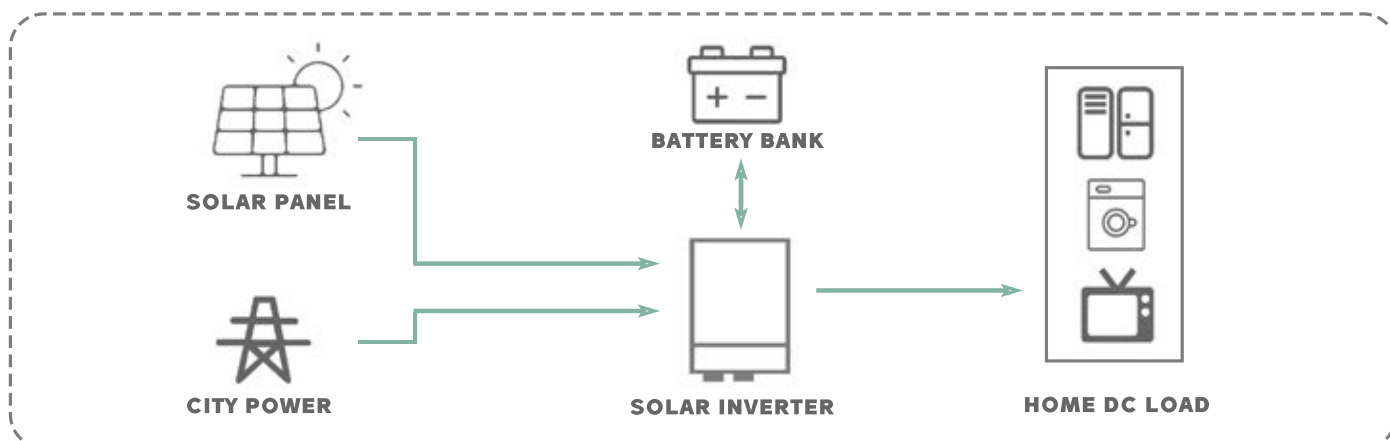
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SOFOTEC
Power Solutions Experts

SOFAR
首航新能源
Growatt

固德威
GOODWE
solis

Afore 艾伏
Votronic Power

STUDER



SPECIFICATION

Model	TA-1250	TA-12100	TA-12150	TA-12200
Nominal Voltage	12.8V			
Nominal Capacity	50AH	100AH	150AH	200AH
Nominal Energy	640WH	1280WH	1920WH	2560WH
Battery Cell Type	Prismatic 50AH/100AH			

Configuration	4S1P	4S1P	4S3P	4S2P
Max. Continuous Charge Current	50A	100A	100A	100A
Max.Pulse Charge Current	60A	120A	120A	120A
Max. Continuous Discharge Current	50A	100A	100A	100A
Max.Pulse Discharge Current	60A	120A	120A	120A

DC Resistance	≤10mΩ		
Full Charged Voltage	1406V		
Discharge Cut-off Voltage	10V		
Operate Temperature Range	Charge:0℃~55℃	Charge:-20℃~60℃	Charge:-20℃~45℃
Humidity (non condensing)	Max.95%		

Dimension(mm)	216*137*210	327*172*218	333*176*217	522*240*218
Weight(KG)	6.35KG	12KG	15KG	22KG
Terminal Type	F1 terminal		Screw terminal	
Cover Sealing Type	Screw/gel sealing optional			
Waterproof	IP65			

Cycle Life	90% DOD Cycle@ 25°C, 0.5C : > 4000times 80%DOD Cycles@25°C, 1C/1C: > 4000times 50%DOD Cycles@25°C, 1C/1C: > 6000times			
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Service Life	5-10 years			
Warranty	5-10 years			
LCD Screen Display	Optional(Show voltage V, Power%)			
Bluetooth	Optional (Bluetooth with mobile APP)			
Series and Parallels Function	Available to make in series and parallels to get 24V,36V,48V			

25.6V SERIES LIFEPO4

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- Series System voltage: 51.2V Amp hour capacity: 200AH
- Parallel System voltage: 12V Amp hour capacity: 400AH

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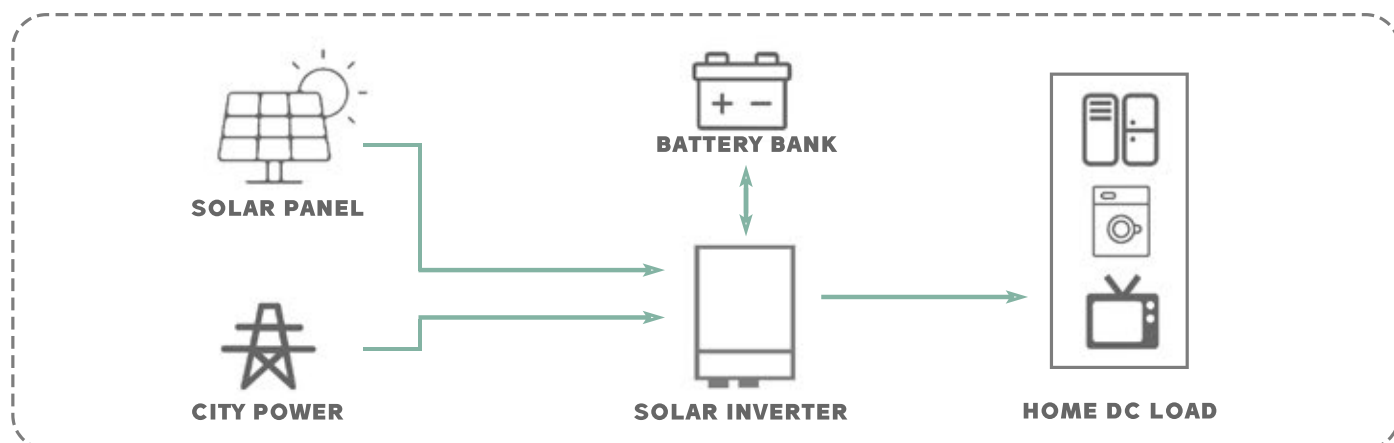
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SPECIFICATION

Model	50AH	100AH	120AH	200AH
Electrical Charateristics				
Nominal Voltage	25.6V			
Energy	1280WH	2560WH	3072WH	5120WH
Internal Resistance(AC)	≤20mΩ			
Cycle Life	4000 cycles @0.5c 90%DOD			
Months Self Discharge	< 3%			
Efficiency of Charge	100%@0.5c			
Efficiency of Discharge	96-99%@0.5c			
Standard Charge				
Charge Voltage	29.2±0.2V			
Charge Mode	0.5C to 29.2V,then 29.2V,charge current to 0.02C(CC/cV)			
Charge Current	50A			
Max. Charge Current	100A			
Charge Cut-off Voltage	29.2±0.2V			
Standard Discharge				
Continuous Current	100A			
Max. Plus Current	120A(3S)			
Discharge Cut-off Voltage	20V			
Environmental				
Charge Temperature	0℃ to 55℃ （32F to 131F）@60±225% Relative Humidity			
Discharge Temperature	-20℃ to 60℃ （-4F to 140F）@60±225% Relative Humidity			
Storage Temperature	-20℃ to 45℃ （-4F to 113F）@60±225% Relative Humidity			
IP Class	IP66			
Mechanical				
Plastic Case	ABS			
Approx. Dimensions	327×172×218mm	522×240×218mm	522×240×218mm	550×443×200mm 48kgs
Approx. Weight	12kgs	25kgs	28kgs	
Terminal	MB			
Service Life	5-10 years			
Warranty	5-10 years			



Long cycle life using high-quality LiFePO4 (lithium iron phosphate) batteries, the cycle life is more than 6000 times at 80%DOD, and can be used for 10-15 years

Built-in intelligent BMS (battery management system), effectively avoiding overcharge, overdischarge, overcurrent, short-circuit, balance and other problems



High quality prismatic LiFePO4(lithium iron phosphate) battery, higher capacity, higher current, longer life

Communicated with multiple brands inverter same time Battery BMS supports simultaneous

Cells Options

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Higher specific energy



Easy to install



Long cycle life



Support parallel operation



Environmental protection and no pollution



ODM+OEM

SPECIFICATION

Model	100AH	150AH	200AH	100AH	150AH	200AH	100AH	150AH	200AH
Norminal Voltage	25.6V	25.6V	25.6V	48V	48V	48V	51.2V	51.2V	51.2V
Norminal Capacity(WH)	2560	3840	5120	4800	7200	9600	5120	7680	10240
Usable Capacity (WH80%DOD)	2048	3072	4096	3840	5760	7680	4096	6144	8192
Design Life	10+Years								

Physical

Dimension(mm)	442*400*133	460*353*179	482*400*178	482*400*178	440*600*179	442*520*320	600*510*173	440*600*179	673*618*193
Weight(KG)	26KG	38KG	47.5KG	45KG	68KG	80KG	58KG	68KG	100KG

Electrical

Cycle Life	> 6000,DOD 80%								
Discharge Voltage(V)	40~58.4								
Charge Voltage(V)	56~58.4								
Charge/Discharge	50A(Recommended)								
Current(A)	100A(Max)								
Internal Resistance	≤30mΩ								

BMS

Capacity	100A/200A Options								
Power Consumption	< 2W (Work) < 100mW(Sleep)								
Monitoring Parameters	System Voltage ,Current,Cell Voltage,Cell Temperature,Module Temperature								
SOC	Intelligent Algorithm								
Communication	CAN/RS-485/RS-232								

Operation

Operation Temperature Range	10°C~50°C								
Transport or Storage Temperature Range	-20°C~45°C								
Humidity	15%~85% (No Condensing)								

Warranty

Product Wrranty	5 Years								
Performance Warranty	10 Years								



Long cycle life using high-quality LiFePO_4 (lithium iron phosphate) batteries, the cycle life is more than 6000 times at 80%DOD, and can be used for 10-15 years

Built-in intelligent BMS (battery management system), effectively avoiding overcharge, overdischarge, overcurrent, short-circuit, balance and other problems

High quality prismatic LiFePO_4 (lithium iron phosphate) battery, higher capacity, higher current, longer life

Communicated with multiple brands inverter same time Battery BMS supports simultaneous

Cells Options



Battery BMS supports simultaneous communication and docking with multiple inverter brands



Higher specific energy



Easy to install



Long cycle life



Support parallel operation



Environmental protection and no pollution



ODM+OEM

SPECIFICATION

Model	48V 100AH	48V 200AH	48V 300AH	51.2V 100AH	51.2V 200AH	51.2V 300AH
Norminal Voltage	48V	48V	48V	51.2V	51.2V	51.2V
Norminal Capacity(WH)	4800	9600	14400	5120	10240	15360
Usable Capacity(WH/80%DOD)	3840	7680	11520	4096	8192	12288
Design Life	10+Years					

Physical

Dimension(mm)	600*510*173	673*618*193	320*780*675	600*510*173	673*618*193	320*780*675
Weight(KG)	45KG	90KG	115KG	58KG	100KG	150KG

Electrical

Cycle Life	≥6000,DOD 80%					
Discharge Voltage(V)	40~58.4					
Charge Voltage(V)	56~58.4					
Charge/Discharge Current(A)	50A(Recommended)					
	100A(Max)					
Internal Resistance	≤30mΩ					

BMS

Capacity	100A/200A Options					
Power Consumption	< 2W (Work) < 100mW(Sleep)					
Monitoring Parameters	System Voltage ,Current,Cell Voltage,Cell Temperature,Module Temperature					
SOC	Intelligent Algorithm					
Communication	CAN/RS-485/RS-232					

Operation

Operation Temperature Range	10°C~50°C					
Transport or Storage Temperature Range	-20°C~45°C					
Humidity	15%~85% (No Condensing)					

Warranty

Product Wrranty	5 Years					
Performance Warranty	10 Years					

HIGH-VOLTAGE STACK

LITHIUM LiFePO₄



- Small size and light weight save installation space
- Good cell consistency and long cycle life
- Modular design. Easy to use and maintenance
- Built-in BMS. With full protection and control functions

- Multiple protection mechanism, high pressure resistance, high reliability
- Strong application compatibility, seamless connection with switching power supply, UPS and other devices



ALL-TIME MONITOR



EASY INSTALLATION



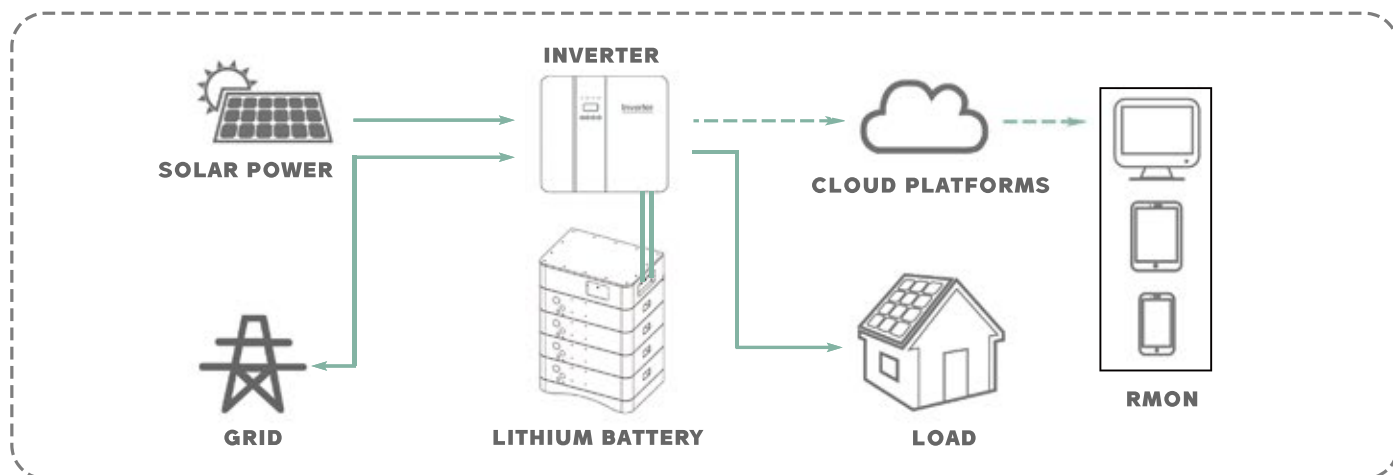
LONG LIFESPAN



FLEXIBLE CAPACITY



SAFETY FOR HOME



SPECIFICATION

Technical specification	10KWH	15KWH	20KWH	25KWH	30KWH
Installation Mode	Racked	Racked	Racked	Racked	Racked

Battery Type	LifePO4(LFP)				
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Nominal Voltage(V)	102.4	153.6	204.8	256	307.2
Nominal Capacity(Wh)	10240	15360	20480	25600	30720
Usable Capacity(Wh)	8192	12288	16384	20480	24576
Design Life 25°C	10+ years	10+ years	10+ years	10+ years	10+ years
Dimension (mm)	590*420*545	590*420*695	590*420*845	590*420*995	590*420*1145
Weight (Kg)	120	165	210	255	300
Recommend Charge/Discharge Current (A)	50	50	50	50	50
Max.Charge/Discharge Current(A)	100	100	100	100	100

Communicaiton	RS485/CAN				
Monitoring Parameters	System voltage,Current,cell voltage,cell temperature,module temperature				
SOC	ntelligent algorithm				
Working Temperature	0°C~50°C Charge -10°C ~50°C Discharge				
Shelf Temperature	10-20°C~60°C0				

allocation schemes							
Case	Photovoltaic(recommended)	Inverter		Battery		Max. output power	Backup time
1	20KW	R6KH3	1pcs	10KWH	1pcs	6KVA	1.2H
2	30KW	R8KH3	1pcs	15KWH	1pcs	8KVA	1.8H
3	40KW	R10KH3	1pcs	20KWH	1pcs	10KVA	2H
4	50KW	R12KH3	1pcs	25KWH	1pcs	12KVA	2H
5	60KW	R15KH3	1pcs	30KWH	1pcs	15KVA	2H

192V SERIES LiFePO4

DEEP CYCLE LITHIUM BATTERY



Long cycle life using high-quality LiFePO4 (lithium iron phosphate) batteries, the cycle life is more than 6000 times at 80%DOD. and can be used for 10-15 years

Built-in intelligent BMS (battery management system), effectively avoiding overcharge, overdischarge, overcurrent, short-circuit, balance and other problems

High quality prismatic LiFePO4(lithium iron phosphate) battery, higher capacity, higher current, longer life

Communicated with multiple brands inverter same time Battery BMS supports simultaneous



Higher specific energy



Easy to install



Long cycle life



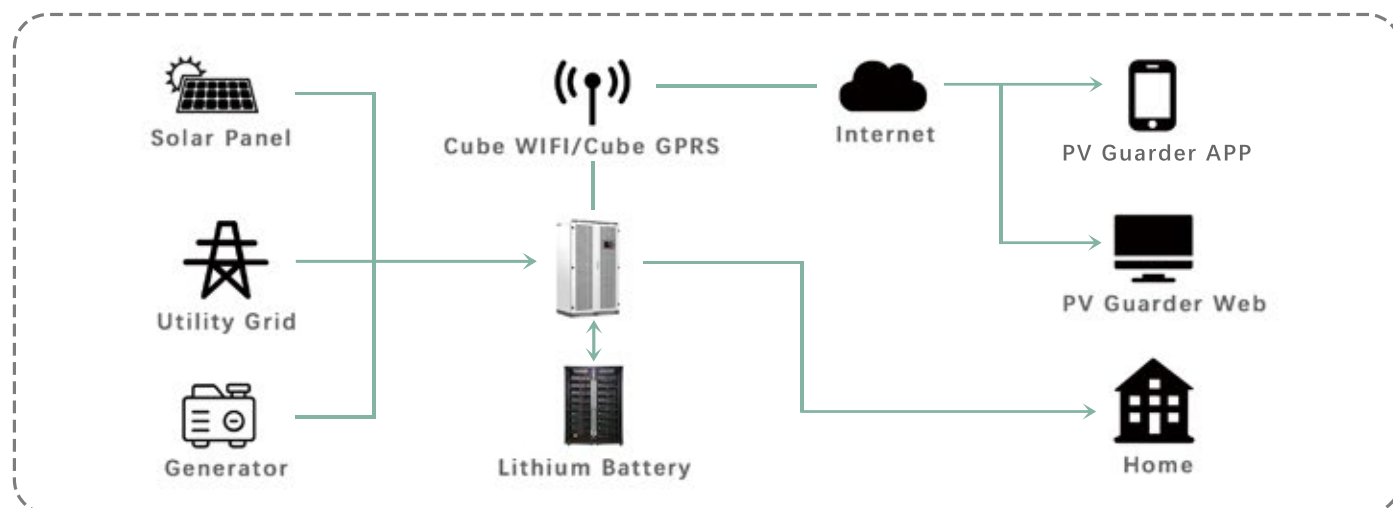
Support parallel operation



Environmental protection and no pollution



ODM+OEM



SPECIFICATION

Nominal Voltage	192V
Electrical Characteristics	
Nominal Capacity	100Ah
Energy	19200Wh
Internal Resistance(AC)	$\leq 20\text{m}\Omega$
Cycle Life	> 6000 cycles @ 1c80%DOD
Months Self Discharge	< 3%
Efficiency of charge	100%@0.5C
Efficiency of discharge	96~99%@1C
Standard Charge	
Charge Voltage	219V
Float charge voltage	213 \pm 1V
Charge Current	30A
Max charge current	50A
Charge Cut-off voltage	221V \pm 1V
Standard Discharge	
Continuous Current	100A
Max.Pulse Current	120A(< 3s)
Discharge Cut-off voltage	150V \pm 1V
Environmental	
Charge Temperature	0°C to 55°C (32F to 131F)@60 \pm 25% Relative Humidity
Discharge Temperature	-20°C to 60°C (-4F to 140F)@60 \pm 25% Relative Humidity
Storage Temperature	-20°C to 45°C (-4F to 113F)@60 \pm 25% Relative Humidity
IP Class	IP65/IP55
Mechanical	
Plastic Case	Metal
Communication Method	CAN/RS485
Cooling Method	Natural Cooling/Fan Cooling/Air Conditioner

384V SERIES LiFePO4

DEEP CYCLE LITHIUM BATTERY



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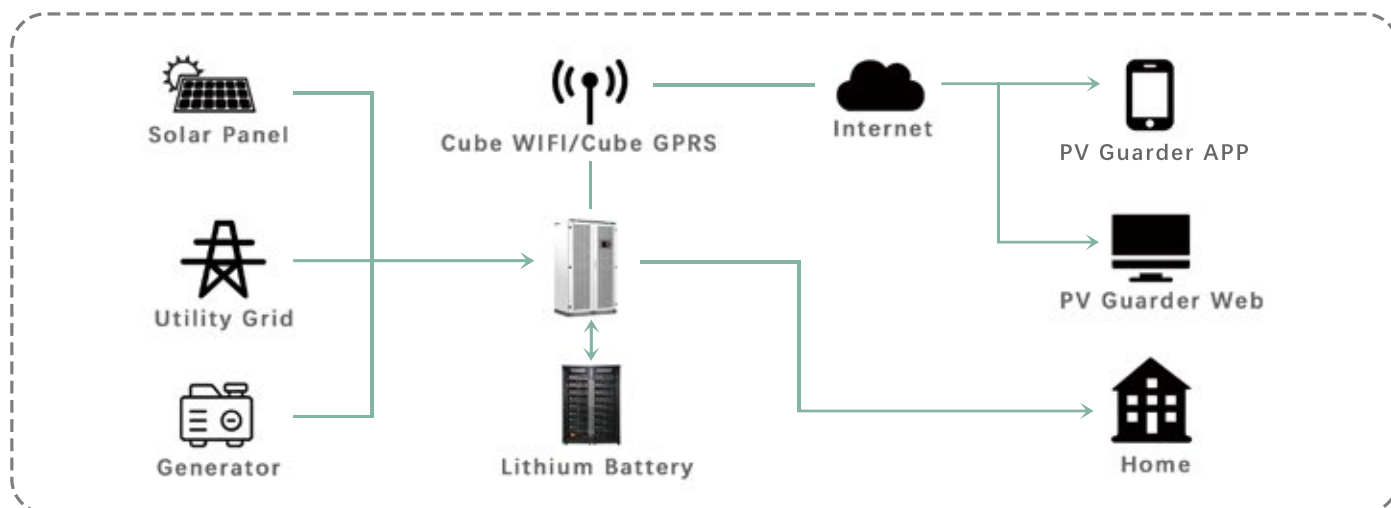
Support parallel operation



Environmental protection and no pollution



ODM+OEM



SPECIFICATION

Nominal Voltage	384V
Electrical Characteristics	
Nominal Capacity	100Ah
Energy	38400Wh
Internal Resistance(AC)	$\leq 20\text{m}\Omega$
Cycle Life	> 6000 cycles @ 1c80%DOD
Months Self Discharge	< 3%
Efficiency of charge	100%@0.5C
Efficiency of discharge	96~99%@1C
Standard Charge	
Charge Voltage	438 \pm 1V
Float charge voltage	426 \pm 1V
Charge Current	30A
Max charge current	50A
Charge Cut-off voltage	442V \pm 1V
Standard Discharge	
Continuous Current	100A
Max.Pulse Current	120A(< 3s)
Discharge Cut-off voltage	300V \pm 1V
Environmental	
Charge Temperature	0°C to 55°C (32F to 131F)@60 \pm 25% Relative Humidity
Discharge Temperature	-20°C to 60°C (-4F to 140F)@60 \pm 25% Relative Humidity
Storage Temperature	-20°C to 45°C (-4F to 113F)@60 \pm 25% Relative Humidity
IP Class	IP65/IP55
Mechanical	
Plastic Case	Metal
Communication Method	CAN/RS485
Cooling Method	Natural Cooling/Fan Cooling/Air Conditioner

■ OUTDOOR CABINET TYPE ENERGY STORAGE SYSTEM

LITHIUM LiFePO4



PRODUCT FEATURES



SIMPLE AND FLEXIBLE

- High integration, small size, easy installation, operation and maintenance
- IP54 protection grade, stronger environmental adaptability



ECONOMICAL & FRIENDLY

- Reducing the maximum demand electricity cost, with considerable economic benefits
- Supporting peak shaving and valley filling, and dynamic expansion of transformers



SAFE AND RELIABLE

- Built-in fire extinguishing , temperature control, early warning system multiple security guarantees
- Intelligent control system, which can be connected to the local monitoring system for unified management and control

SPECIFICATION

TECHNICAL SPECIFICATION

DC DATA

BATTERY CAPACITY (KWH)	100~400
NUMBER OF BATTERY RACKS	1~2
BMS COMMUNICATION INTERFACE	RS485/CAN
DC VOLTAGE RANGE (V)	420~850

AC DATA

RATED AC POWER(KW)	30~150
MAX. AC POWER(KW)	30~150
RATED AC CURRENT(A)	43~216
MAX. AC CURRENT(A)	48~238
DC CURRENT COMPONENT	< 0.5%
THDI	< 3% (RATED POWER)
RATED GRID VOLTAGE(V)	400
ALLOWABLE GRID VOLTAGE RANGE(V)	320~460
RATED GRID FREQUENCY(HZ)	50/60
ALLOWABLE GRID FREQUENCY RANGE	45~55/55~65
POWER FACTOR	1LAGGING-1LEADING
ISOLATION METHOD	WITH THE ISOLATION

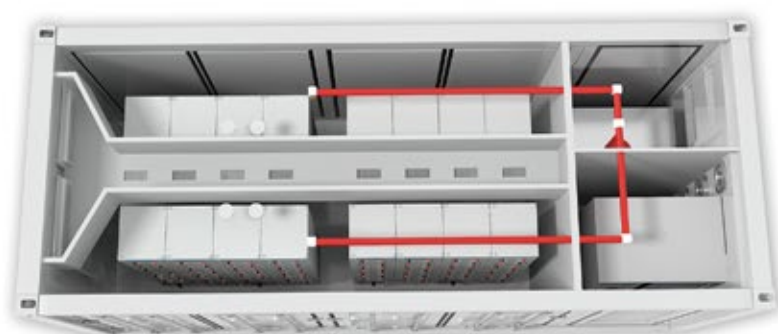
GENERAL DATA

INGRESS PROTECTION	IP54
FIRE EXTINGUISHING SYSTEM	SUPPORT
OPERATING TEMPERATURE	-30°C ~ 55°C
DIMENSION W*D*H (MM)	CUSTOMIZATION*1300*2400
WEIGHT (T)	CUSTOMIZATION
BMS COMMUNICATION MODE	RS485, CAN
EMS COMMUNICATION MODE	RS485, TCP/IP
PCS COOLING WAY	TEMPERATURE CONTROL INTELLIGENT AIR COOLING
BATTERY COOLING WAY	AIR CONDITIONING COOLING
ALTITUDE	4,500M(>3,000 DERATING)



CONTAINER STORAGE SYSTEM

LITHIUM LiFePO₄



Internal representation

PRODUCT FEATURES



SIMPLE & FLEXIBLE

- Standardized design, easy to expand and maintain
- Independent air duct design, more stable operation



ABUNDANT CONFIGURATION

- Diversified selection of equipment capacity
- Can be integrated with monitoring system



SAFE & RELIABLE

- Support battery management system and comprehensive thermal management
- Improve the fault classification protection mechanism

SPECIFICATION

TECHNICAL SPECIFICATION

DC DATA

BATTERY CAPACITY (MWH)	1,106
NUMBER OF BATTERY RACKS	8
BMS COMMUNICATION INTERFACE	RS485/CAN
DC VOLTAGE RANGE (V)	600~850

AC DATA

RATED AC POWER(KW)	500
MAX. AC POWER(KW)	550
RATED AC CURRENT(A)	722
MAX. AC CURRENT(A)	800
DC CURRENT COMPONENT	< 0.5%
THDI	< 3% (RATED POWER)
RATED GRID VOLTAGE(V)	400
ALLOWABLE GRID VOLTAGE RANGE(V)	320~460
RATED GRID FREQUENCY(HZ)	50/60
ALLOWABLE GRID FREQUENCY RANGE	45~55/55~65
POWER FACTOR	1LAGGING-1LEADING
ISOLATION METHOD	NO ISOLATION

GENERAL DATA

INGRESS PROTECTION	IP54
FIRE EXTINGUISHING SYSTEM	SUPPORT
RUNNING TIME (FULL POWER)	2H
OPERATING TEMPERATURE	-30°C ~ 55°C
DIMENSION W*D*H (MM)	12,192*2,438*2,896
WEIGHT (T)	3.5
BMS COMMUNICATION MODE	RS485, CAN
EMS COMMUNICATION MODE	RS485, TCP/IP
PCS COOLING WAY	TEMPERATURE CONTROL INTELLIGENT AIR COOLING
BATTERY COOLING WAY	AIR CONDITIONING COOLING
ALTITUDE	4,500M(>3,000 DERATING)
RELATIVE HUMIDITY	0 ~95% NON-CONDENSING

PROJECT



TAIAN TAI ENERGY CO.,LTD



TAI'AN TAI ENERGY CO.LTD.
DONGPING TAI ENERGY CO.,LTD.
FOSHAN TAI ENERGY CO.LTD.

Tel:+86-0538-8560366

Fax:+86-0538-8560366

Email:info@taienergy.cn

<https://www.taienergy.cn>

<https://taienergy.en.alibaba.com>

<https://taienergy.en.made-in-china.com>

TaiAn Industrial Zone, Shandong Province, P . R .China