

# GLOBAL CERTIFICATION

Each product can only reach users after undergoing rigorous "physical examination" such as safety testing/reliability testing/application testing.



**SHENZHEN CTECHI TECHNOLOGY CO., LTD.**

[www.ctechipower.com](http://www.ctechipower.com) [www.ctechibattery.com](http://www.ctechibattery.com)

Business cooperation : [info@ctechi.com.cn](mailto:info@ctechi.com.cn)

Headquarters Address: Jiada Industrial Park,  
Yanluo Street, Baoan District, Shenzhen

# 21

## ONE-STOP ENERGY STORAGE SOLUTIONS

Residential Energy Storage  
Commercial and Industrial Energy Storage  
Container Energy Storage

“ THERE IS SUNNY,  
THERE IS POWER,  
”



# COMPANY PROFILE

SHENZHEN CTECHI TECHNOLOGY CO., LTD.

## OUR STORY

Shenzhen CTECHi Technology Co., Ltd. is an energy storage expert with 21 years' experience in battery industry. We offer one-stop battery solutions as well as ODM, OEM, and SKD services, focusing on the R&D and manufacturing of a wide range of batteries, including energy storage systems, motive power batteries and digital & consumer batteries.

We have accumulated rich experiences on the energy storage solution through more than 30,000 customized cases, which enables us to provide tailored solutions and prompt responses to our clients' diverse needs. Whether you require small-quantity orders or full-service packages that includes shipping, certification and freight, we are committed to meeting your specific requirements.

With state-of-the-art facilities covering an area of 100,000+ square meters in Guangdong and Hunan provinces, CTECHi is committed to rigorous product production, strict quality control, precise testing and recognized international certification to ensure the high quality of products.

Thanks to our dedicated professional team, CTECHi has earned a solid reputation for innovation and reliability. We are committed to growing together with our customers by providing them with products and marketing strategies that meet their target markets, thereby supporting our customers expanding more market share, which is also in line with CTECHi's philosophy: Growth! Happiness! Respectable!

3



Manufacture Sites

1500+



Employees

300



Senior Researchers

100000 m<sup>2</sup>



Production Base

2005

CTECHi Founded

2008

Built CTECHi's own factory  
Provided lithium battery solution

2010

Formed a complete R&D team and R&D system

2015

Launched portable power station (All series were made of LiFePO<sub>4</sub> Batteries)

2018

Awarded National High-Tech Enterprise

2020

Established CTECHi Energy Storage Industrial Park

2022

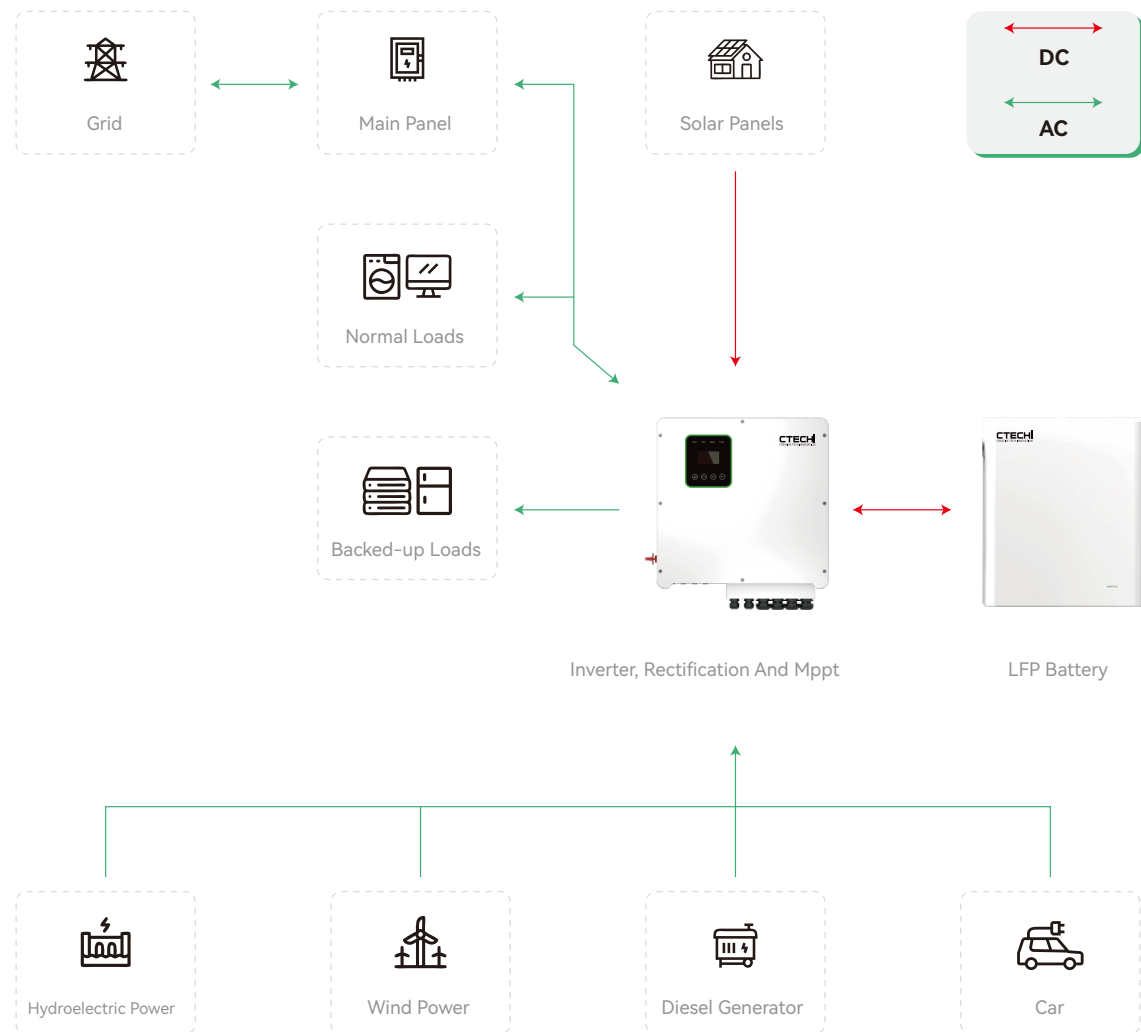
Series A funding round  
National SRDI Little Giant Industry standard setter

2023

Launched BESS and BSS

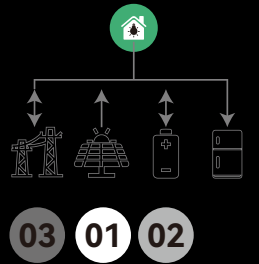
# RESIDENTIAL ENERGY STORAGE SYSTEM SOLUTION

## HYBRID SYSTEM



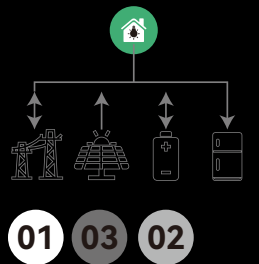
## SOLAR PRIORITY MODE

In the solar priority mode, all power supply to the load is provided by solar energy. when the electricity generated by solar energy is enough to meet the user's load, solar energy supplies power to the load, and excess solar energy charges the battery pack. When the electricity generated by solar energy is not enough to meet the user's load, the battery pack will supply the power to the load. If the the battery level is less than 10%, the system will automatically switch to grid power to supply the load, and will activate grid power to charge the battery. At the same time, solar power will charge the battery until it is fully charged. After it is fully charged, the system will automatically switch to solar power and battery power to



## AC PRIORITY MODE

In AC (grid) priority mode, the power supply to the load is provided by the grid bypass input. when the battery is fully charged, AC(grid) only supply power to the user's load, When the battery level is severely low, AC (grid) not only supplies power to the user's load, but also starts to charge the battery, while solar energy charges the battery until it is fully charged. When AC (grid) power is cut off, the system will automatically switch to solar energy to supply power to the load.



## SE PRIORITY MODE (STAGGER OF POWER CONSUMPTION)

In SE mode, users can set the SE time, during SE time, the power supply of the load is provided by the grid bypass input, while the grid charges the battery and the solar energy charges the battery until it is fully charged. Outside of SE time, the load is powered by solar energy. When the electricity generated by solar energy is not enough to meet the user's load, the battery pack supplies the power to the load. When the battery level is less than 10%, the system will automatically switch to grid power to supply the load, and will activate grid power to charge the battery. At the same time, solar power will charge the battery until it is fully charged. After it is fully charged, the system will automatically switch to solar power and battery power to supply the load.

- Integrated design with flexible and variable module layout; small footprint, high energy density, easy maintenance.
- Uses (LiFePO4) modules, safe and reliable, with independent fire protection and fault warning management systems.
- Equipped with separate liquid cooling and external exhaust systems for good cabinet temperature control.
- Supports remote monitoring, data transmission, cloud platform management, and multi-level user permissions.

# HIGH VOLTAGE RESIDENTIAL ENERGY STORAGE

PROJECT	SYSTEM PARAMETERS
Product Model	ES-320100
Battery Parameters	
Cell Type	LFP-100Ah
Battery Capacity	6.4KWH*N
Battery Voltage Range	(50~73V)*N
AC Grid Parameters	
Grid Type	Three-phase inverter
Rated Power	5~10KW
Rated Grid Voltage	380vAC
Grid Frequency	50Hz/60Hz
General Parameters	
Dimensions (L*D*H)	482*133*551mm
Communication Method	CAN/RS485
Weight	50kg
Protection Level	IP54(battery pack)
Operating Temperature	-20~65°C
Humidity Range	0~95%(non-condensing)
Operating Altitude	<2000m
Noise	≤75dB
Cooling Method	Natural Cooling
Corrosion Protection Level	C3



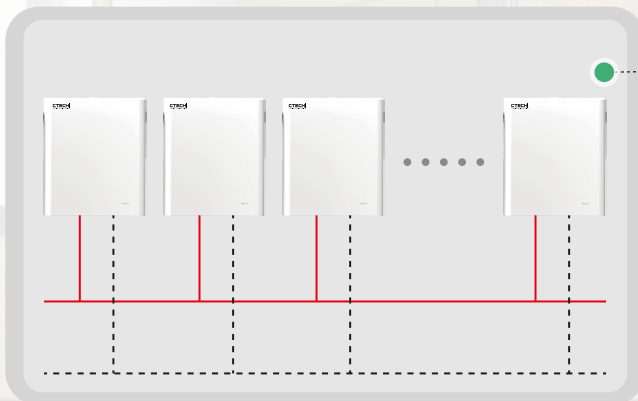
# WALL MOUNTED SERIES

- LARGE CAPACITY UP TO 80KWH
- ON-GRID OR OFF-GRID
- UNIQUE THERMAL MANAGEMENT
- SUPPORTS IP53 PROTECTION CUSTOMIZED

## ITEMS SPECIFICATIONS

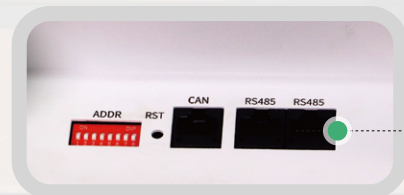
Model	CTWALL2560	CTWALL5120	CTWALL8038	CTWALL10240	CTWALL15K	CTWALL15K-wheel
Battery Cell	LiFePO4	LiFePO4	LiFePO4	LiFePO4	LiFePO4	LiFePO4
Capacity (Ah)	50	100	314	200	280/314	280/314
Nominal Voltage (V)	51.2	51.2	25.6	51.2	51.2	51.2
Operating Voltage (V)	40-57.6	40-57.6	20-29.2	40-57.6	40-57.6	40-57.6
Energy (KWH)	2.56	5.12	8.038	10.24	14.336/16.076	14.336/16.076
Stand Charge Current	10A	20A	56A	40A	56A	56A
Max. Continuous Charge Current	50A	100A	100A	100A	100A	200A
Stand Discharge Current	10A	20A	56A	40A	56A	56A
Max. Continuous Discharge Current	50A	100A	100A	100A	100A	200A
Dimension (L*W*H, mm)	450*340*140	500*450*140	440*720*200	470*840*150	430*840*230	430*840*230
Weight Approximate (kg)	28	49	70	80	115.2/120	124.4/130

Discharge Temperature	-20~60°C	
Charge Temperature	0-45°C	
Storage Temperature	-20~60°C	
Cycle Life	6000 Cycles (80%DOD,25°C)	
Installation	Floor -Mounted, Wall -Mounted	Floor -Mounted
Communication Port	CAN,RS485 (Wifi, Bluetooth, LCD screen optional)	CAN,RS485 (Wifi, Bluetooth optional)
Warranty Period	5 years	



● UP TO 16 PARALLEL

● SUPPORT FOR CAN/R485 COMMUNICATION, ETC



# RACK BATTERIES SERIES

- LARGE CAPACITY UP TO 80KWH
- FULL-INTEGRATED LiFePO4 BATTERY SYSTEM
- UNIQUE THERMAL MANAGEMENT
- SUPPORTS IP53 PROTECTION CUSTOMIZED



## ITEMS

## SPECIFICATIONS

Model	CT51.2V100Ah	CT51.2V150Ah	CT51.2V200Ah
Battery Cell	LiFePO4	LiFePO4	LiFePO4
Capacity (Ah)	100	150	200
Nominal Voltage (V)	51.2	51.2	51.2
Operating Voltage (V)	40-57.6	40-57.6	40-57.6
Energy (KWH)	5.12	7.68	10.24
Stand Charge Current	20A	30A	20A
Max. Continuous Charge Current	100A	100A	100A
Stand Discharge Current	20A	30A	20A
Max. Continuous Discharge Current	100A	100A	100A
Dimension (L*W*H, mm)	442*550*134	601.2*483*131.5	442*800*134
Weight Approximate (kg)	47	67.5	96
Discharge Temperature	-20~60°C		
Charge Temperature	0-45°C		
Storage Temperature	-20~60°C		
Cycle Life	6000 Cycles (80%DOD,25°C)		
Installation	Floor -Mounted, Wall -Mounted		
Communication Port	CAN,RS485,RS232 (Wifi, Bluetooth, LCD screen optional)		
Warranty Period	5 years		



# STACKED BATTERIES SERIES

- LARGE CAPACITY UP TO 80KWH
- FULL-INTEGRATED LiFePO4 BATTERY SYSTEM
- UNIQUE THERMAL MANAGEMENT
- SUPPORTS IP53 PROTECTION CUSTOMIZED



## ITEMS

Model	CTS5120-Wall terminal
Battery Cell	LiFePO4
Capacity (Ah)	100
Nominal Voltage (V)	51.2
Operating Voltage (V)	40-57.6
Energy (KWH)	5.12
Stand Charge Current	20A
Max. Continuous Charge Current	100A
Stand Discharge Current	20A
Max. Continuous Discharge Current	100A
Dimension (L*W*H, mm)	482*440*142.4
Weight Approximate (kg)	42
Discharge Temperature	-20~60°C
Charge Temperature	0-45°C
Storage Temperature	-20~60°C
Cycle Life	6000 Cycles (80%DOD,25°C)
Installation	Floor -Mounted
Communication Port	CAN,RS485 (Wifi, Bluetooth, LCD screen optional)
Warranty Period	5 years

## SPECIFICATIONS



# ALL-IN-ONE BACKUP POWER STATION

● POWER YOUR HOME FOR DAYS

● POWER PRETTY MUCH ANYTHING

ITEMS	SPECIFICATIONS
Model	PT3650S
Energy	5222.4Wh (51.2V/102Ah)
Voltage Regulation Method	Pure String Waveform Output
Input	AC Charging: 100V-240V 2000W Solar Charging: 12-100V=20A( 1000W Max) Charging Pile Charging: 100V-240V=10A
Output	AC Output*3: 100V-240V, 50Hz/60Hz Rated Power: 3600W Peak Power: 5000W QC3.0 Output*2: 5V (100W Max) USB-C Output: 5V;9V;12V ( 100W Max)
UPS Switching Period	≤15ms
Battery Type	LiFePO4
Charging Working Temperature	0°C-40°C
Discharge Working Temperature	-10°C-40°C
Product Storage Temperature	-10°C-40°C
Size	508*310*658mm
Weight	70Kg
*Remark: Supports parallel battery expansion (customizable)	





# ALL IN ONE HOME ENERGY STORAGE SYSTEM

ITEMS	SPECIFICATIONS	
Battery	Product Model	PT3570S/PT3580S
	Battery Type	LFP,3.2V/280AH/314AH
	Rated Energy	7.168kWh/8.0384kWh
	Rated Battery Voltage	25.6V
	Voltage Range	21.6V~29.2V
Inverter OUTPUT	Rated Output Power	3500W
	Max.Peak Power	6000VA
	Rated Output Voltage	230Vac
	Rated AC Frequency	50/60Hz
	Switch Time	10ms(typical)
PV INPUT	Num. of MPPT Trackers	1
	Max.PV Array Power	4000W
	Input Current	13A
	Max.Voltage of Open Circuit	500Vdc
Utility/Generator INPUT	MPPT Voltage Range	120~450Vdc
	Input Voltage Range	90~280Vac
	Frequency Range	50/60Hz
	Bypass Overload Current	30A
System Parameters	Depth of discharge	90%
	Size	830*400*235mm
	Weight	80kg
	Protection Degree	IP20, Indoor Only
	Operating Temperature Range	-10~55°C,>45°C Derating
	Noise	<60dB
	Cooling method	Built-in fan
	Communication interface	RS485/CAN
	External module (optional)	Wi-Fi / GPRS

\*Remark: Supports parallel battery expansion (customizable)

# ALL IN ONE HOME ENERGY STORAGE SYSTEM



ITEMS	SPECIFICATIONS	
Battery	Product Model	PT5510S
	Battery Type	LFP,3.2V/200AH
	Rated Energy	10.240KWH
	Rated Battery Voltage	51.2V
	Voltage Range	43.2V~58.4V
Inverter OUTPUT	Depth of discharge	90%
	Rated Output Power	5500W
	Max.Peak Power	11000VA
	Rated Output Voltage	230Vac
	Rated AC Frequency	50/60Hz
PV INPUT	Switch Time	10ms(typical)
	Num. of MPPT Trackers	1
	Max.PV Array Power	6000W
	Input Current	22A
	Max.Voltage of Open Circuit	500Vdc
Utility/Generator INPUT	MPPT Voltage Range	120~450Vdc
	Input Voltage Range	90~280Vac
	Frequency Range	50/60Hz
	Bypass Overload Current	40A
	Size	830*500*235mm
System Parameters	Weight	115KG
	Protection Degree	IP20, Indoor Only
	Operating Temperature Range	-10~55°C,>45°C Derating
	Noise	<60dB
	Cooling method	Built-in fan
	Communication interface	RS485/CAN
	External module (optional)	Wi-Fi / GPRS

\*Remark: Supports both parallel power and battery expansion (customizable)

# ALL IN ONE HOME ENERGY STORAGE SYSTEM



ITEMS	SPECIFICATIONS	
Battery	Product Model	PT5515SP/PT5516SP
	Battery Type	LFP,3.2V/280AH/314AH
	Rated Energy	14.336kWh/16.0768kWh
	Rated Battery Voltage	51.2V
	Voltage Range	43.2V~58.4V
Inverter OUTPUT	Rated Output Power	5500W
	Max.Peak Power	11000VA
	Rated Output Voltage	230Vac
	Rated AC Frequency	50/60Hz
	Switch Time	10ms(typical)
PV INPUT	Num. of MPPT Trackers	1
	Max.PV Array Power	6000W
	Input Current	22A
	Max.Voltage of Open Circuit	500Vdc
	MPPT Voltage Range	120~450Vdc
Utility/Generator INPUT	Input Voltage Range	90~280Vac
	Frequency Range	50/60Hz
	Bypass Overload Current	40A
System Parameters	Depth of discharge	90%
	Size	970*860*250mm
	Weight	135kg
	Protection Degree	IP20, Indoor Only
	Operating Temperature Range	-10~55°C,>45°C Derating
	Noise	<60dB
	Cooling method	Built-in fan
	Communication interface	RS485/CAN
	External module (optional)	Wi-Fi / GPRS

\*Remark: Supports both parallel power and battery expansion (customizable)

# ALL IN ONE HOME ENERGY STORAGE SYSTEM



ITEMS	SPECIFICATIONS	
Battery	Product Model	PT8016SP
	Battery Type	LFP,3.2V/314AH
	Rated Energy	16.0768kWh
	Rated Battery Voltage	51.2V
Inverter OUTPUT	Voltage Range	43.2V~58.4V
	Rated Output Power	8000W
	Max.Peak Power	12000VA
	Rated Output Voltage	230Vac
PV INPUT	Rated AC Frequency	50/60Hz
	Switch Time	10ms(typical)
	Num. of MPPT Trackers	2
	Max.PV Array Power	5500W+5500W
Utility/Generator INPUT	Input Current	22A+22A
	Max.Voltage of Open Circuit	500Vdc+500Vdc
	MPPT Voltage Range	125~425Vdc
	Input Voltage Range	90~275Vac
System Parameters	Frequency Range	50/60Hz
	Bypass Overload Current	63A
	Depth of discharge	90%
	Size	1070*860*250mm
System Parameters	Weight	151kg
	Protection Degree	IP20, Indoor Only
	Operating Temperature Range	-10~55°C,>45°C Derating
	Noise	<60dB
	Cooling method	Built-in fan
	Communication interface	RS485/CAN
	External module (optional)	Wi-Fi / GPRS

\*Remark: Supports both parallel power and battery expansion

# ALL IN ONE HOME ENERGY STORAGE SYSTEM

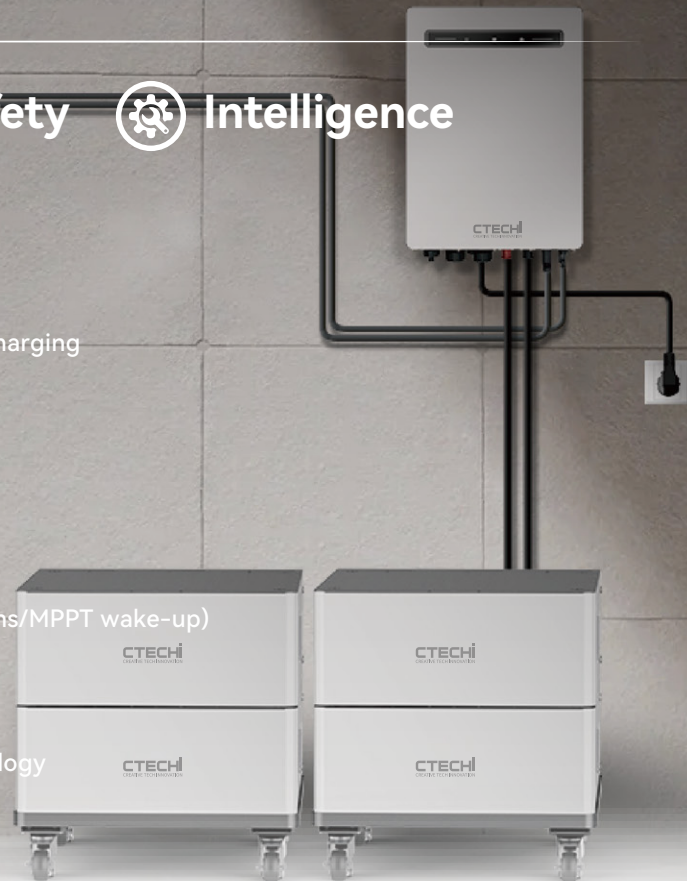


ITEMS		SPECIFICATIONS	
Battery	Product Model	ESS-L-10F01-P5.5M6	
	Battery Type	LFP,3.2V/102AH	
	Rated Energy	10.4448kWh	
	Rated Battery Voltage	51.2V	
	Voltage Range	43.2V~58.4V	
Inverter OUTPUT	Rated Output Power	5500W	
	Max.Peak Power	11000VA	
	Rated Output Voltage	230Vac	
	Rated AC Frequency	50/60Hz	
PV INPUT	Switch Time	10ms(typical)	
	Num. of MPPT Trackers	1	
	Max.PV Array Power	6000W	
	Input Current	22A	
	Max.Voltage of Open Circuit	500Vdc	
Utility/Generator INPUT	MPPT Voltage Range	120~450Vdc	
	Input Voltage Range	90~280Vac	
	Frequency Range	50/60Hz	
System Parameters	Bypass Overload Current	40A	
	Depth of discharge	90%	
	Size	730*165*1430mm	
	Weight	130kg	
	Protection Degree	IP20, Indoor Only	
	Operating Temperature Range	-10~55°C,>45°C Derating	
	Noise	<60dB	
	Cooling method	Built-in fan	
	Communication interface	RS485/CAN	
	External module (optional)	Wi-Fi / GPRS	

# BALCONY STORAGE SYSTEM

 Efficient  Safety  Intelligence

- ▶ Super fast charging
- ▶ Efficient MPPT
- ▶ High efficiency of charging and discharging
- ▶ IP65 high protection design
- ▶ On-grid/Phase separation
- ▶ Smart operation of mobile APP
- ▶ Charging mode output protection
- ▶ Battery undervoltage wake-up (Mains/MPPT wake-up)
- ▶ Excellent load adaptability
- ▶ Adopting DSP digital control technology



TEMS	SPECIFICATIONS
Model	SLPK5120
Nominal Capacity	5120Wh
Nominal Voltage	51.2V
Working Voltage Range	43.2-57.6V
Standard Charging&discharging Current	20A(0.2C)
Max.Charging&discharging Current	100A
Battery Type	LiFePO4
Standard Discharge Temperature	-20~60°C
Dimension(WXDXH)	482x440x142.4mm
Weight	42kg
Warranty	5years

Balcony Storage Inverter		
Rated power	1600VA/1600W	
Peak power(W)	3200	
Machine architecture	Bidirectional AC/DC inverter Boosting and lowering pressure MPPT	
Input/output phase number	Single phase input/Single phase output	
Output	Number of output lines	Single phase two wire ( L, N ) + Protective ground wire
	Rated voltage (VAC)	220/230/240 50/60Hz ±0.1%(Settable, automatically detects mains frequency)
Mains input	Number of input lines	Single phase two wire ( L, N )+Protective ground wire
	Input voltage range(Vac)	Zero fire phase voltage: 184~253
	Input frequency range(Hz)	48-51
Battery and charging	Input power factor	≥0.95
	Rated voltage of battery (V)	48
	Battery type	LiFePO4 16 strings, Ternary lithium14 strings
	Charging termination voltage (V)	56.8V/Continuing Adjust
Solar charging	Discharge termination voltage (V)	44V/Continuing Adjust
	Charging current(A)	Max.25A, digitally adjustable, default 10A
	Max. PV input power(W)	800W*2
	Max. PV open circuit voltage(VDC)	100
Solar charging	PV operating voltage range(VDC)	10~100
	PV input current(A)	PV access MPPT working mode,16A max.
Solar charging	Number of MPPT	2
	PV charging current(A)	0-16A*2
On-grid	Optional function	On-grid power can be set to 0-1600W
Interface	APP	The mobile APP manages and controls the on-grid time and power
	Communication interface	Switch on and off command interface,RS485,CAN
	LCD display screen(Options)	Display input and output voltage, frequency, load percentage, PV voltage and current, operating mode, and machine status
Environmental parameters	Operating temperature range	-20~55°C
	Operating humidity range	0-98% (No condensation)
	Cooling method	natural cooling
	Protection degree	IP65
Structural Shape	Size(MM)	360 × 256× 130
	Weight(kg)	7.5
Safety and electromagnetic compatibility standards		IEC/EN62109-1,IEC/EN62109-2/IEC/EN61000-6-1/-2/-3/-4, IEC/EN61000-3-2/-3/VDE4105

# SINGLE-PHASE ESS HYBRID INVERTER

- Supports automatic battery switching;
- Support diesel generator input source;
- Compatible with lead-acid and lithium-ion batteries;
- Parallel available, intelligent BMS management;
- Input power source priority can be set by users;
- Battery reverse connection protection, anti-power control function;



• WH3KL1 • WH5KL1 • WH6KL1



## Residential Energy Storage Inverters

Technical specification	WH3KL1	WH5KL1	WH6KL1	WH8KL3	WH10KL3	WH12KL3
Input (PV)						
Max.power(KW)	4.6	7	7	10.4	13	15.6
Max. DC voltage(V)		550			1,000	
MPPT voltage range(V)		125~500			180~850	
Max.input current of single MPPT(A)		14			12.5	
MPPT tracker/strings		2/1		2/1	2/1	2/1
AC output						
Rated output power(kVA)	3	5	6	8.8	11	13.2
Max. output current(A)	13	21.7	26	12.7	15.9	19.1
Grid voltage/range(V)		230/176~270			400/360~440	
Frequency (Hz)		50 /60			50 /60	
Power factor		0.8lagging-0.8leading			0.8lagging-0.8leading	
THDi		<3%			<3%	
AC output topology		L+N+PE			3W+N+PE	
Battery						
Battery voltage range(V)		40~58			125~600	
Max. charging voltage(V)		58			600	
Full battery voltage(V)	95/62.2	95/104.2	95/110	210	270	250
Max. charge/discharge current(A)				40	40	50
Battery type		lithium /Lead-acid			lithium /Lead-acid	
Communication Interface		CAN/RS485			CAN/RS485	
EPS output						
Rated power(kVA)	3	5	6	8.8	11	13.2
Rated output voltage(V)		230			400	
Max. output current(A)	13	21.7	26	12.7	15.9	19.1
Rated frequency(Hz)		50 /60			50 /60	
Automatic switching time(ms)		<20			<20	
THDu		<2%			<2%	
Overload capacity		110%, 30S/120%, 10S/150%, 0.02S			110%, 30S/120%, 10S/150%, 0.02S	
General data						
Battery charge /discharge efficiency		95.0%		96.6%	96.7%	96.8%
DC Max. efficiency		97.6%		97.9%	98.2%	98.2%
Europe efficienc		97.0%		97.2%	97.5%	97.5%
MPPT efficiency		99.9%		99.5%	99.5%	99.5%
Ingress protection		IP65			IP65	
Noise emission(dB)		<35			<35	
Operation temperature		-25°C~ 60°C			-25°C~ 60°C	
Cooling		Natural			Natural	
Relative Humidity		0 ~95% (non-condensing)			0 ~95% (non-condensing)	
Altitude		2,000m(>2,000 Derating)			2,000m (>2,000 Derating)	
Dimensions W * D * H (mm)		550*200*515			530*200*600	
Weight(kg)		25			29	
Isolation transformer		No			No	
Self-consumption(W)		<3			<3	
Display and communication						
Display		LCD			LCD	
Interface:RS485/Wifi/4G/CAN/DRM		Yes/ Opt/ Opt/ Yes/ Yes			Yes/ Opt/ Opt/ Yes/ Yes	
Safety standard		IEC/EN62109-1/-2, IEC/EN62477-1			IEC/EN62109-1/-2, IEC/EN62477-1	
EMC		IEC/EN 61000-6-1, IEC/EN 61000-6-3			IEC/EN 61000-6-1, IEC/EN 61000-6-3	
On-grid		South Africa NRS097-2-1:2017, UK G98,G99			Europe: EN50549-1, Germany: VDE4105/0124, UK: G99, South Africa: NRS097-2-1:2017	

# THREE PHASE ESS HYBRID INVERTER



- Compatible with lead-acid and lithium-ion batteries;
- Support diesel generator input source;
- IP65 protection, low noise < 35dB;
- Battery reverse connection protection, anti-power control function
- Input power source priority can be set by users;
- Support full power discharge, automatic management of battery charge and discharge;



• WH8KL3 • WH10KL3 • WH12KL3



## SERIES HIGH FREQUENCY INVERTER

- 450V high PV input
- Optional WIFI function
- Pure sine wave output, adaptable to different loads
- Higher solar charging efficiency and battery protection
- Working with or without battery
- Output power factor PF=1
- Parallel function to expansion power
- High frequency inverter, lighter weight with higher efficiency
- lithium battery activation start function with ac and solar mode

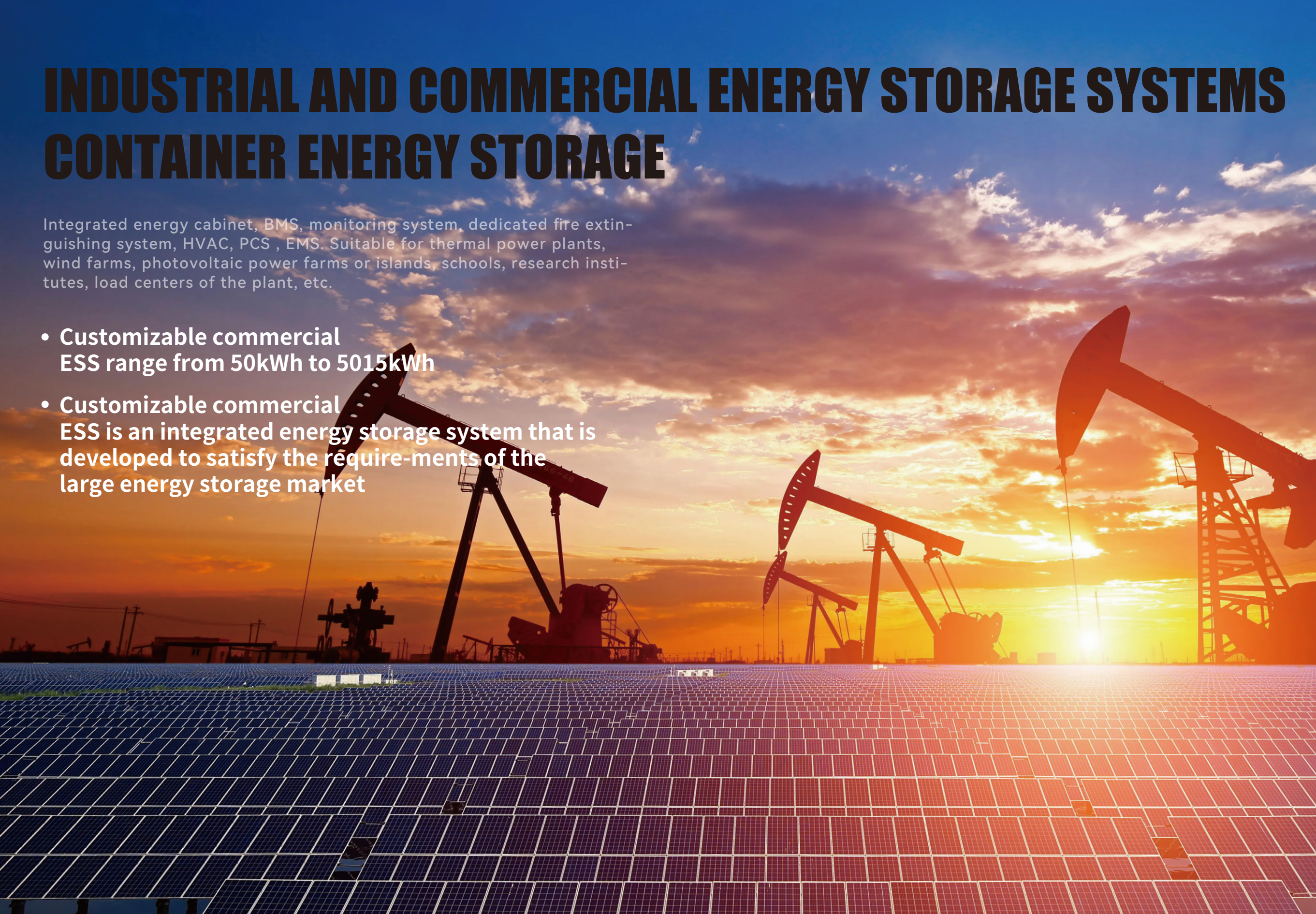
Series High Frequency Inverter Data Sheet				
Input	Phase	L+N+PE		
	Nominal Voltage	208/220/230/240VAC		
	Voltage Range	154~264VAC±3V (Normal Mode) 185~264VAC±3V (UPS)		
	Frequency Range	50Hz/60Hz(Adaptive)		
Output	Rated Power	3000W	5000W	10000W
	Output Voltage(AC)	208/220/230/240VAC±5%		
	Output Frequency	50/60Hz±0.1%		
	Waveform	Pure sine wave		
	Transfer Time( Optional)	10ms for computer , 20ms for home appliances		
	Peak power	6000VA	10000VA	20000VA
	Overload	Battery Mode: 1min@102%~110% Load 10s@110%~130% Load 3s@130%~150% Load 200ms@>150% Load		
	Peak efficiency (battery mode)	>94%	>94%	>94%
Battery	Rated voltage	24Vdc	48Vdc	48Vdc
	Constant voltage charging voltage	28.2Vdc	56.4Vdc	56.4Vdc
	Floating charge voltage (Optional)	27Vdc	54Vdc	54Vdc
charger	PV charging method	MPPT	MPPT	Double MPPT
	PV max input power	3500W	5500W	5500W*2PCS
	MPPT tracking range	120~430Vdc	120~430Vdc	120~450Vdc
	Max PV input voltage	450Vdc	450Vdc	450Vdc
	Max PV charging current	60A	120A	80A+80A
	Max AC charging current	60A	120A	80A+80A
	Max charging current	120A	120A	80A+80A
Display	LCD display	Operating mode/load/input/output, etc.		
Communication port	RS232	5PIN/Pitch2.0mm, baud rate 2400		
	Expansion & configuration port	2×5PIN/Pitch2.54mm, lithium battery BMS communication card, WIFI card, dry contact card, etc.		
	Parallel interface	No	Optional	No
Environmental parameters	Operating environment temperature	0~40°C		
	Operating environment humidity	20%~95% (Non condensing)		
	Storage temperature	-15~60°C		
	Altitude	The altitude should not exceed 1000m, derating above 1000m, up to 4000m, refer to IEC62040		
	noise	≤50db		
Certifications	EN-IEC 60335-1, EN-IEC 60335-2-29, IEC 62109-1			

# INDUSTRIAL AND COMMERCIAL ENERGY STORAGE SYSTEMS

## CONTAINER ENERGY STORAGE

Integrated energy cabinet, BMS, monitoring system, dedicated fire extinguishing system, HVAC, PCS, EMS. Suitable for thermal power plants, wind farms, photovoltaic power farms or islands, schools, research institutes, load centers of the plant, etc.

- Customizable commercial ESS range from 50kWh to 5015kWh
- Customizable commercial ESS is an integrated energy storage system that is developed to satisfy the requirements of the large energy storage market



- Adopting an integrated design, the functional modules are flexibly arranged; with a small footprint, high energy density, and easy maintenance.
- Compatible with CAN and RS485 communication, it matches various brands of inverters, richly meeting customer needs
- Supports user terminal monitoring to understand system operation status.

PROJECT	SYSTEM PARAMETERS
Model	P15M15C30-S
BATTERY PARAMETERS	
Cell Type	LFP-102Ah
System Configuration	1P96S
Battery Capacity	31.3KWH
Battery Voltage Range	259.2~350.4V
Thermal Management	Air cooling
AC GRID PARAMETERS	
Rated Power	15KW
Rated Grid Voltage	400V/230V
Adjustable Power Factor Range	-1~1
Grid Frequency	50Hz/60Hz
Rated Current	22A
PV PARAMETERS	
Maximum Power	15KW+15KW
Maximum PV Voltage	850V
PV Startup Voltage	250V
Maximum PV Current	25A+25A
GENERAL PARAMETERS	
Dimensions(L*D*H)	670*812*1530mm
Communication	CAN/RS485
Weight	/
Protection Rating	IPX4
Operating Temperature	-20~55°C
Humidity Range	0~95%(non-condensing)
Operating Altitude	<2000m
Noise	≤75dB

# INDUSTRIAL AND COMMERCIAL ENERGY STORAGE SYSTEMS



- Integrated design with flexible and variable module layout; small footprint, high energy density, easy maintenance.
- Uses lithium iron phosphate (LiFePO<sub>4</sub>) power cells, with independent fire protection and fault warning management systems, ensuring safety and reliability.
- Supports user terminal monitoring to understand system operation.

PROJECT	SYSTEM PARAMETERS
Model	P200M20C43L
Battery type	LFP,3.2V/280AH
Battery module	16S1P-51.2V280AH,14.336KWH
Number of battery modules	3pcs
Rated capacity	43kwh
Rated voltage	51.2v
Voltage range	41.6v~58v(2.6v~3.65v)
Charge and discharge rate	≤0.5C
Discharge depth	95%
Communication interface	RS485/CAN
Cooling method	Natural air cooling
Fire protection system	None
PCS	
Rated power	10KW*2 (single-phase inverter)
Input source	L+N+PE
Voltage	220V/230V/240VAC
Frequency	50/60Hz
Output voltage	220V/230V/240VAC±5%
Rated grid frequency	50/60Hz±0.1%
Maximum efficiency	98%
Waveform	Pure sine wave
Communication interface	RS485/CAN
Grid switching	Optional grid-connected function
MPPT	
Rated power	2*5500W (dual circuit)
PV side voltage	90~500V (optimal voltage 300~400V)
Maximum current	150A
SYSTEM	
Installation location	Indoor
Protection level	IP55
Display	LCD display: operation mode/load/input/output, etc.
Operating humidity range	20~95% (non-condensing)
Operating temperature range	-20~60°C
Maximum operating altitude	4000m (>1000m derating)
Dimensions (length * width * height)	
Weight	

# INDUSTRIAL AND COMMERCIAL ENERGY STORAGE SYSTEMS



- Integrated design with flexible and variable module layout; small footprint, high energy density, easy maintenance.
- Uses lithium iron phosphate (LiFePO4) power cells, with independent fire protection and fault warning management systems, ensuring safety and reliability.
- Supports user terminal monitoring to understand system operation.

PROJECT	SYSTEM PARAMETERS
Model	P30M30C60-S
Battery Cell	LFP,3.2V/100AH
Battery box	1P48S-153.6V100AH,15.36KWH
Battery box quantity	4pcs
System rated power	61.44kwh
System rated voltage	614.4v
System voltage range	520v~700v(2.7v~3.65v)
Charge and discharge rate	≤ 0.5C
Discharge Depth	95%
Communication interface	RS485/CAN
Cooling method	Intelligent air cooling
Fire protection system	Aerosol Adhesive
PCS	
Rated power	30KW
AC current harmonics	<5% (rated power)
DC component	<0.5%
Rated grid voltage	230V/400V
Grid voltage range	-20%~15 %
Rated grid frequency	50/60Hz
Maximum efficiency	97.8%
Wiring method	Three-phase four-wire
Communication interface	RS485/CAN
Grid-connected switching	Supports on-grid and off-grid switching , with built-in STS (switching time <5mS)
MPPT	
Rated power	19.2KW+19.2KW
PV side voltage	250~700V
Maximum efficiency	>99%
SYSTEM	
Installation Location	Outdoor installation ( it is recommended to build a canopy )
Protection level	IP55
Corrosion resistance	none
Operating humidity range	5~95% (no condensation)
Operating temperature range	-20~60 °C
Maximum operating altitude	3000m (>2000m derating)
Dimensions (length*width*height)	860*1025*1500
weight	About 750KG

# INDUSTRIAL AND COMMERCIAL ENERGY STORAGE SYSTEMS



- Integrated design with flexible and variable module layout; small footprint, high energy density, easy maintenance.
- Uses lithium iron phosphate (LiFePO4) power cells, with independent fire protection and fault warning management systems, ensuring safety and reliability.
- Supports user terminal monitoring to understand system operation.

PROJECT	SYSTEM PARAMETERS
Model	P50M50C108-S
Battery Cell	LFP,3.2V/314AH
Battery box	1P36S-115.2V/,36.17KWH
Battery box quantity	3pcs
System rated power	108.52kwh / 120Kwh
System rated voltage	345.6v / 384v
System voltage range	291.6v~394.2v(2.7v~3.65v)
Charge and discharge rate	≤ 0.5C
Discharge Depth	95%
Communication interface	RS485/CAN
Cooling method	Intelligent air cooling
Fire protection system	Aerosol Adhesive
PCS	
Rated power	50KW
AC current harmonics	<5% (rated power)
DC component	<0.5%
Rated grid voltage	230V/400V
Grid voltage range	-20%~15 %
Rated grid frequency	50/60Hz
Maximum efficiency	97.8%
Wiring method	Three-phase four-wire
Communication interface	RS485/CAN
Grid-connected switching	Supports on-grid and off-grid switching , with built-in STS (switching time <5mS)
MPPT	
Rated power	38.4KW+38.4KW
PV side voltage	250~700V
Maximum efficiency	>99%
SYSTEM	
Installation Location	Outdoor installation ( it is recommended to build a canopy )
Protection level	IP55
Corrosion resistance	none
Operating humidity range	5~95% (no condensation)
Operating temperature range	-20~60 °C
Maximum operating altitude	3000m (>2000m derating)
Dimensions (length*width*height)	880*1050*1600
weight	About 1000kg

# INDUSTRIAL AND COMMERCIAL ENERGY STORAGE SYSTEMS



# INDUSTRIAL AND COMMERCIAL ENERGY STORAGE SYSTEMS

PROJECT	SYSTEM PARAMETERS	REMARK
Model	P105M100C215/P105M100C241	
Battery Type	LFP,3.2V/280AH/300Ah/314Ah	
Battery Box	48S1P-153.6V280AH/300Ah/314Ah,43Kwh/46Kwh/48Kwh	
Battery Box Quantity	5pcs	
Rated Power	215Kwh/230Kwh/241Kwh	
Rated Voltage	768V	
Voltage Range	648V~876(2.7v~3.65v)	
Charge And Discharge Rate	≤ 1C	
Discharge Depth	90%	
Communication Interface	RS485/CAN	
Cooling Method	Intelligent Air Cooling	

PCS		
Operating Voltage Range	615~950V(3W+PE)/650~950 V(3W+N+PE)	DC Side
Full Load Voltage Range( V)	615-950V(3W+PE)/680~950 V(3W+N+PE)	
Input Circuit	1	
Maximum Current	170A	
Rated Voltage	230/400 V	AC Side (Grid-Connected)
Voltage Deviation	-15%~+15%	
AC Output Type	(3W+PE )Three-Phase Three-Wire/(3W+N+PE )Three-Phase Four-Wire	
Rated Output Power	105KW	
Maximum Output Power	116KW	
Maximum Current	167A	
Rated Grid Frequency	50/60Hz	
Power Factor	0.99	
Power Factor Range	1 (Leading)~1( Lagging)	
Current Distortion Rate	<2% (Rated Power)	
DC Component	0.5%	
Overload Capacity	110% Long Term	
Maximum Efficiency	98.5%	
Rated Output Voltage	230/400 V	
AC Voltage Harmonics	3%(Linear Load)	
Rated Frequency	50/60 Hz	
Rated Output Power	105KW	
Maximum Apparent Power	116KW	
Maximum Output Current	167A	

SYSTEM PARAMETERS	
Installation Location	If You Need To Install It Outdoors, You Need To Build A canopy.
Protection Level	IP54
Corrosion Resistance	None
Operating Humidity Range	0~95%(No Condensation)
Operating Temperature Range	-20~60 °C
Maximum Operating Altitude	3000m(>2000m Derating)
Cooling Method	Strong Exhaust
Dimensions (W*D*H)	2050*1602*1555
Weight	2000Kg



- Integrated design with flexible and variable module layout; small footprint, high energy density.easy maintenance.
- Uses (LiFePO4) modules, safe and reliable, with independent fire protection and fault warning management systems.
- Eaupted with separate liquid cooling and external exhaust systems for good cabinet temperature control.
- Supports remote monitoring, data transmission, cloud platform manageme, and multi-level user permissions.

# CONTAINER ENERGY STORAGE

- Power could be 62.5KW to 500KW by equipping different numbers of power modules.
- The battery can be configured 8 clusters ( 215KWh/cluster \* 8 ) in Parallel.

PROJECT	SYSTEM PARAMETERS
Model	500kW/1075kwh
Rated power (kVA)	500KVA
AC max power (kVA)	550KVA
AC frequency	50160(-2.5-2.5)HZ
AC voltage	400(-15%-15%)Vac
AC PF	0.1~1 leading or lagging
Battery voltage	768(720-840)Vdc
Recommend charge/discharge	860A/860A
Battery capacity (kWh)	1075kWh
Max charge discharge	700A/1000A
IP grade	IP54
Dimension (W*D*H)	6096*2438*2590mm
Anticorrosion grade	C4
Fire fighting	Integrated
Cooling mode	PCS: Forced air cooling Battery: Air cooling
Operating temperature	-20-50°C
Storage temperature	-40-60
Auxiliary power supply	230Vac
Communication protocol	CAN, RS485, Modbus TCP/IP



# CONTAINER ENERGY STORAGE

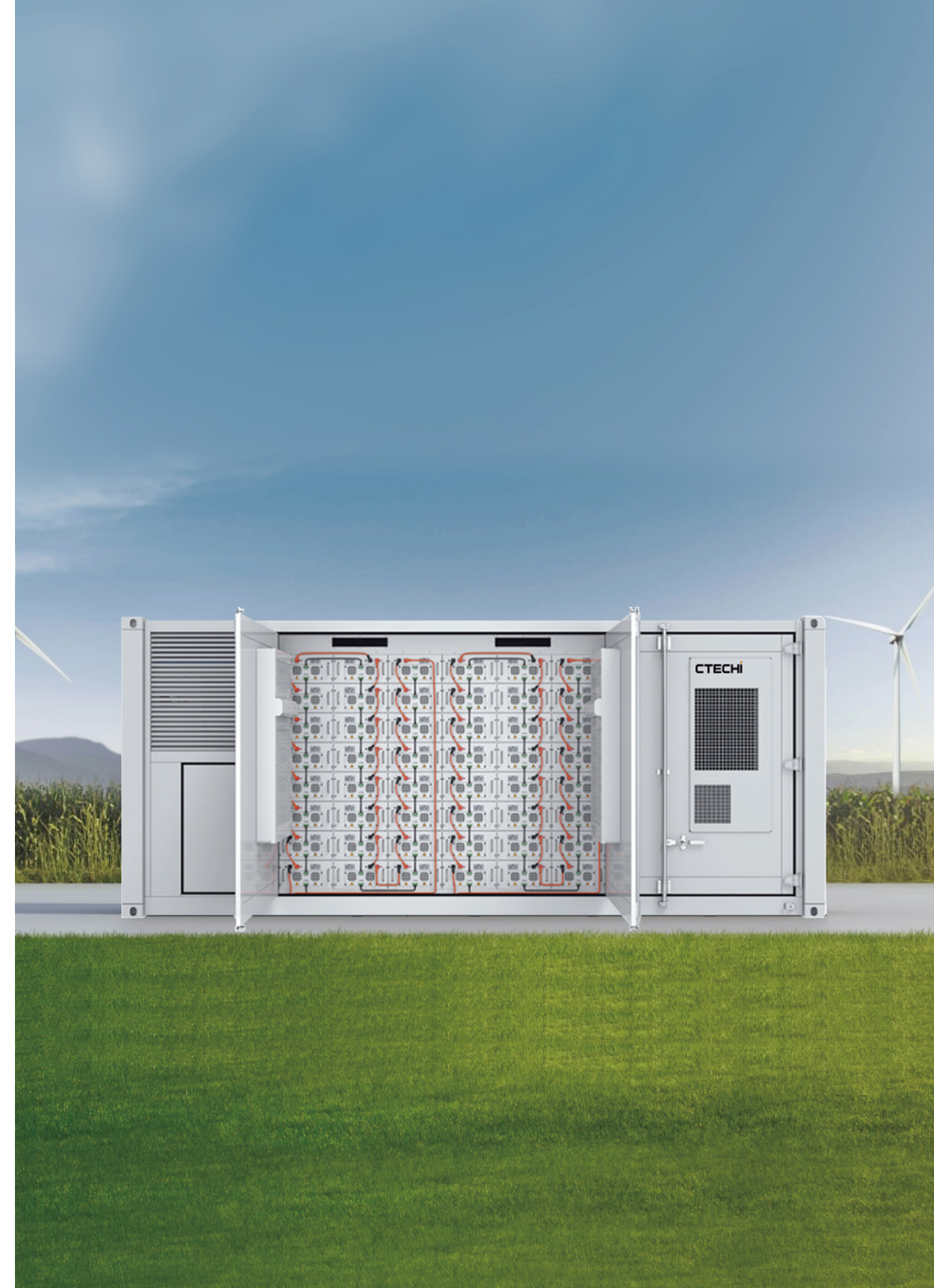
PROJECT	SYSTEM PARAMETERS
Combination	6P384S
Nominal Capacity	280Ah
Nominal voltage	DC1228.8V
Operating voltage range	1076V~1382V(Cell2.8~3.6)
Nominal energy	2064.38kwh(0.5C)
Nominal charging current	140A
Nominal dsicharging current	140A
Cell Cycle Life	6000 Cycles(0.5c,25°C, 90%DOD, 80% EOL)
IP degree	IP54
Discharge ambient temperature	-20°C~55°C
Charging ambient temperature	0°C~45°C
Dimensions	6058*2896*2438mm
Weight	~3000kg
Altitude	≤2000m
RTE	≥93.5%



# CONTAINER ENERGY STORAGE

- PACK+BMU:temperature acquisition, voltage acquisition, battery balancing
- High voltage box+BCMU:rack information collection,status estimation, threshold protection
- Current Combiner cabinet+BAMs:DC confluence, acquisition, storage, processing, battery information display, communication with PCS and EMS
- BMS:Monitor, view and set PCS, battery system, air conditioner, fire hydrant and other operation data and fault data,record system charging and discharging data, process data, and generate reports

PROJECT	SYSTEM PARAMETERS
Energy	3.35MWh
Configuration	9P416s
Cell Capacity	280Ah
Voltage Range	1040.0~1518.4V
Charge/Discharge Rate	0.5P
Weight	≤35T
Dimension(W*D*H)	20GP Container
Fire Extinguisher System	Perfluorohexanone + Water Spray
Cooling strategy	Liquid cooling
IP Rating	IP55
Operating Temperature	-30~55°C
Communication Interface	MODBUS RTU/TCP IEC104,IEC61850



# CONTAINER ENERGY STORAGE

- The energy storage DC cabin adopts an integrated design, integrating the battery cluster (including battery Packages and high-voltage boxes ), BMS , junction cabinets, fire protection systems, liquid cooling systems, lighting, video surveillance and other facilities are installed in the DC cabin. The cabin has independent automatic control and safety systems such as power distribution, temperature control, fire alarm, fire control, and grounding systems.
- A 166.4V/314Ah battery pack is composed of 52 series of 3.2V/314Ah lifepo4 cells.
- 8 battery packs are connected in series and matched with a high-voltage box to form a set.
- 1331.2V/314Ah battery cluster, each cluster has a rated power of 417.996kWh, 12 sets of battery clusters form an energy storage battery system with a rated operating voltage of 1331.2V and a rated energy storage capacity of 5.015MWh.
- The operating voltage range of the DC side of the 1500V high-voltage PCS.

PROJECT	SYSTEM PARAMETERS
Energy	5.015MWh
Configuration	12P416S
Cell Capacity	314Ah
Voltage Range	1040.0-1518.4V
Charge/Discharge Rate	0.5P
Weight	≤43T
Dimension(W*D*H)	20GP Container
Fire Extinguisher System	Peruorohexanone + Water Spray
Cooling Strategy	Liquid Cooling
IP Rating	IP55
Operating Temperature	-30~55°C
Communication Interface	MODBUS RTU/TCP IEC104, IEC61850



# SOLAR PANEL

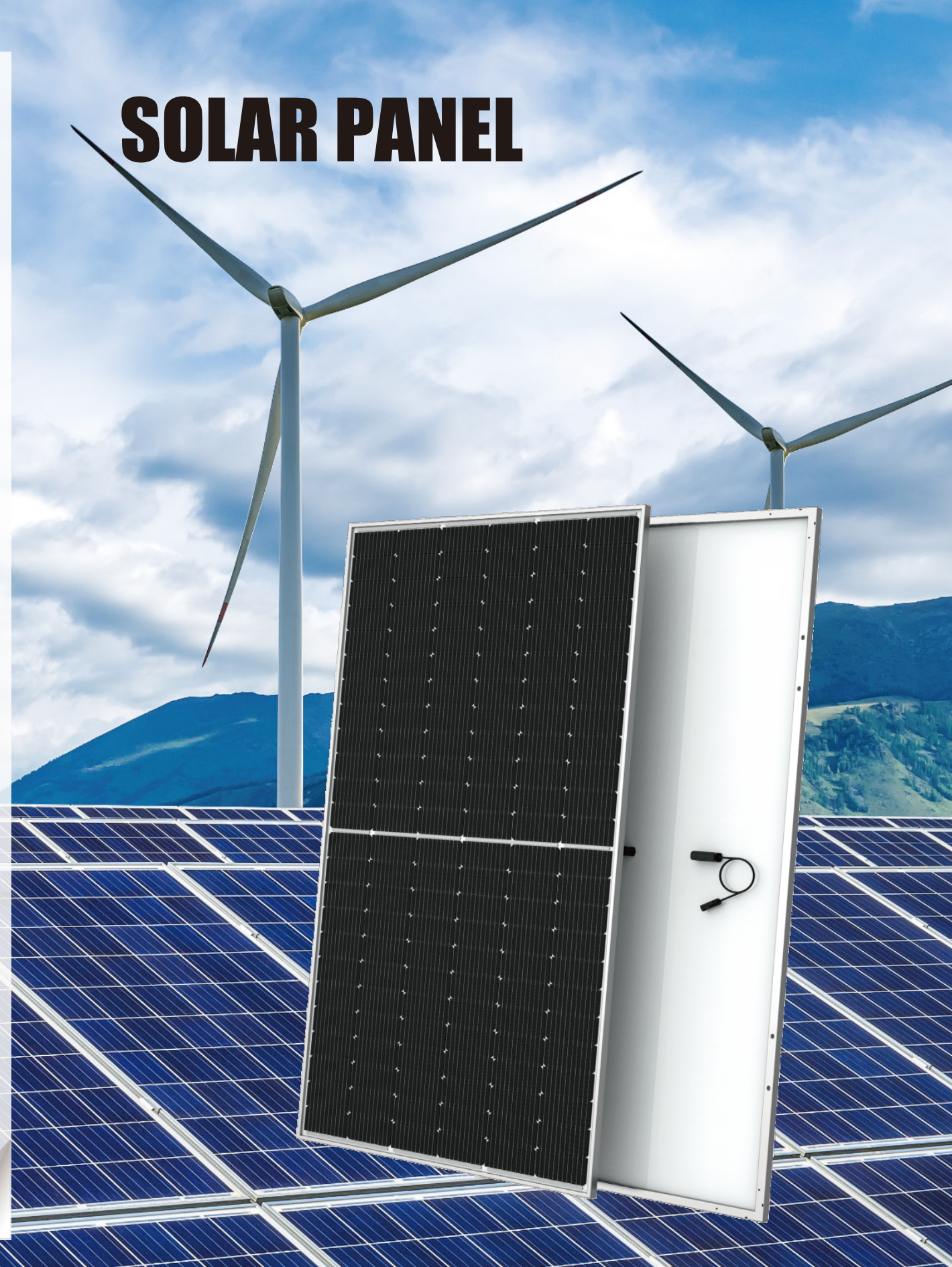
## ITEMS

## SPECIFICATIONS

Model	CTMONO100	CTMONO200
Maximum Power at STC	100W	200W
Optimum Operating Voltage (Vmp)	20.4V	19.2V
Open-Circuit Voltage (Voc)	24.3V	23V
Optimum Operating Current (Imp)	4.91A	10.42A
Short-Circuit Current(Isc)	5.21A	11.05A
Operating Temperature	-40°C-85°C(-40°F-185°F)	20A
Maximum Series Fuse Rating	15A	600V DC
Maximum System Voltage	600V DC	0.79m(2.6ft)
Output Cable	0.6m(1.97ft)	12kg(26.46lbs)
Weight	6.4 kg(14.1 lbs)	1491x 699 x35 mm
Dimensions	1062x 530x35 mm (41.8 x 20.9 x 1.38 in)	(58.7 x 27.5 x 1.38 in)

## SPECIFICATIONS

CTMONO550	CTMONO600	CTMONO650
550W	600W	650W
42.71V	34.4V	37.4V
50.14V	41.5V	37.3V
12.88A	17.45A	17.39A
13.68A	18.52A	18.44A
25A	30A	30A
1000/1500V DC	1000/1500V DC	1500V DC
0.2m(0.65ft)	0.2m(0.65ft)	0.2m(0.65ft)
28.3kg(62.39lbs)	30.9 kg / 68.12 lbs	33.6 kg / 74.07 lbs
2278 x1134 x35 mm (89.68 x 44.64 x1.38 in)	2172 x 1303 x35 mm (85 x51.29 x1.38 in)	2384 x1303 x35 mm (93 x 51.29 x 1.38 in)



T H E R E I S S U N N Y  
T H E R E I S P O W E R



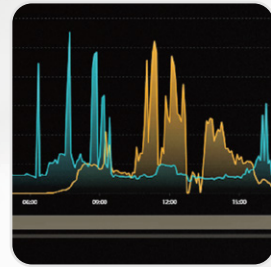
# PRODUCT FEATURES



SEC  
(Smart Energy Control)

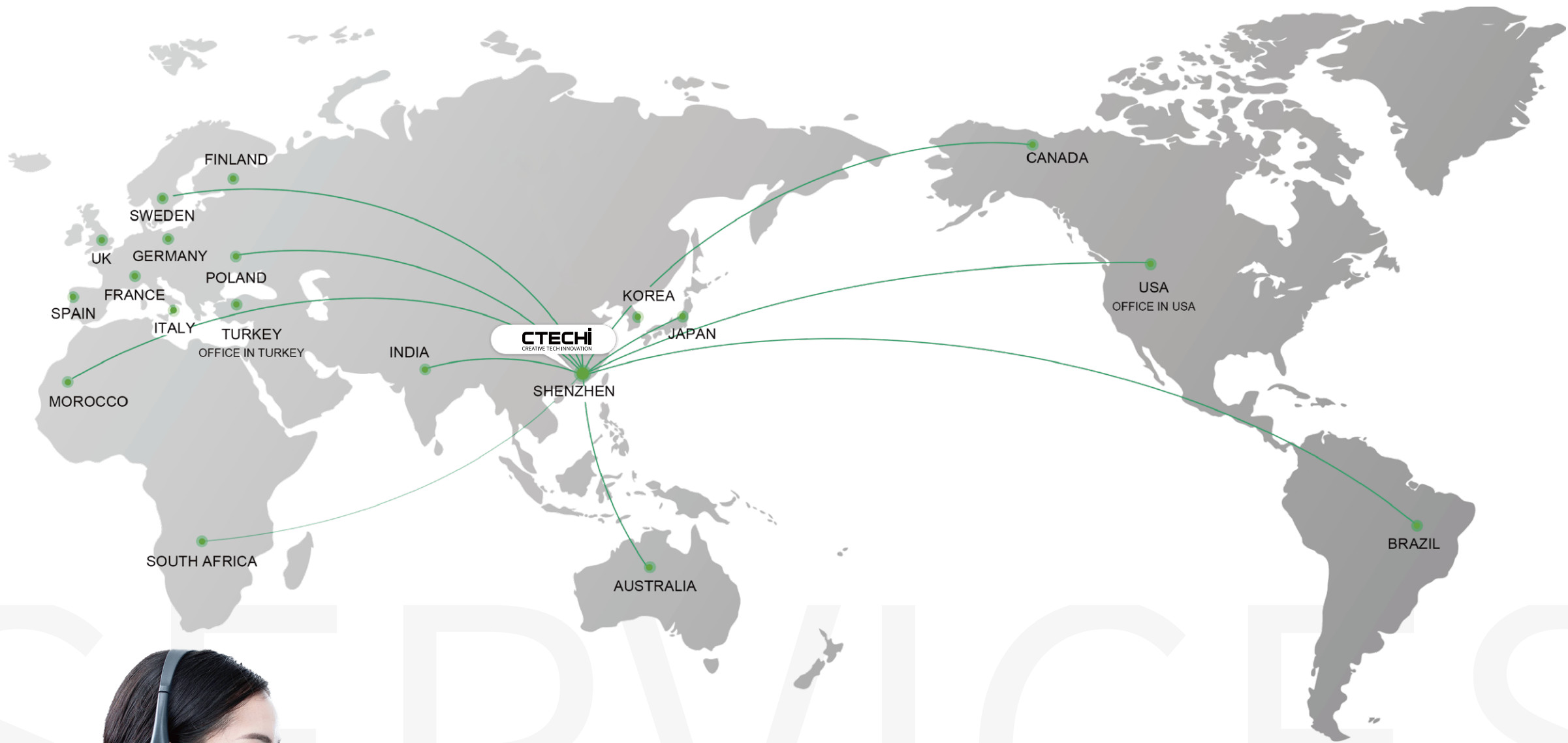


All Using  
Lithium Iron Phosphate



Operation And Maintenance  
Monitoring Platform





SERVICES



**ONLINE + OFFLINE 360°  
PROFESSIONAL SERVICE**

Global service support centers in mainland China, Hong Kong , Europe, the United States, Japan, South Korea, Australia , etc. 24\*7\*365 online instant service support

<b>126</b>	<b>468</b>	<b>10000+</b>	<b>10Gwh</b>
			
Countries	Cities	Project	Cumulative Sales

# RICH GLOBAL EXPERIENCE IN LARGE-SCALE ENERGY STORAGE PROJECTS



## China tower mobile base station power supply

2018 , undertook the power supply project of China Tower Mobile Base Station located in western Guangdong. This is the company's first large-scale project in the true sense. After repeated surveys and discussions, the project team finally output 48V50Ah/100Ah/150Ah/200Ah power supply solutions for China Tower mobile base stations .



## Royal academy off-grid energy storage system

The Royal College, also known as Imperial College, was founded in 1907 in London, England, by Queen Victoria and Prince Albert in 1845, the Royal Academy of Sciences and the British Empire Institute, the Royal College of Mines, London City and Guild College of the amalgamation, was a member of the University of London.2020 , based on years of deep cultivation and accumulation in the industry, the company has reached a cooperation with the Royal Academy of England, and the company will provide it with a 50KWh off-grid energy storage system to meet its daily power reserve.



2021

Undertook US hotel backup 1MW/2MWh power system



2019

Undertook African 150KWh solar energy storage projects



2019

Undertook Villa energy storage power supply 200KWh system in Zimbabwe