





Jiangsu Hengtong Energy Storage Technology Co., Ltd.

# HTES

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Professional Energy Storage System

Solution Starting Provider



Professional Energy Storage System

Harnessing The Power Of Nature

# JIANGSU HENGTONG ENERGY STORAGE TECHNOLOGY CO., LTD.

Jiangsu Hengtong Energy Storage Technology Co., Ltd. (hereinafter referred to as "Hengtong Energy Storage"), established in 2019, is a subsidiary of China's Fortune Global 500 company, Hengtong Group Co., Ltd. (hereinafter referred to as "Hengtong Group"). It specializes in new energy businesses related to energy storage technology, system integration, photovoltaic energy storage integration, and microgrid solutions. Adhering to the core service philosophy of "enhancing energy efficiency, promoting clean energy, and reducing carbon emissions," Hengtong Energy Storage is deeply involved in the design, research and development, production, and manufacturing of energy storage products in multiple application scenarios such as power generation, grid-side, and user-side. They provide full-lifecy-cle management services covering engineering implementation to project operation, actively promoting the global transition to a low-carbon economy.

laboratory with first-class inspection and test equipments





Professional Energy Storage System

# **Qualifications and Honors**



















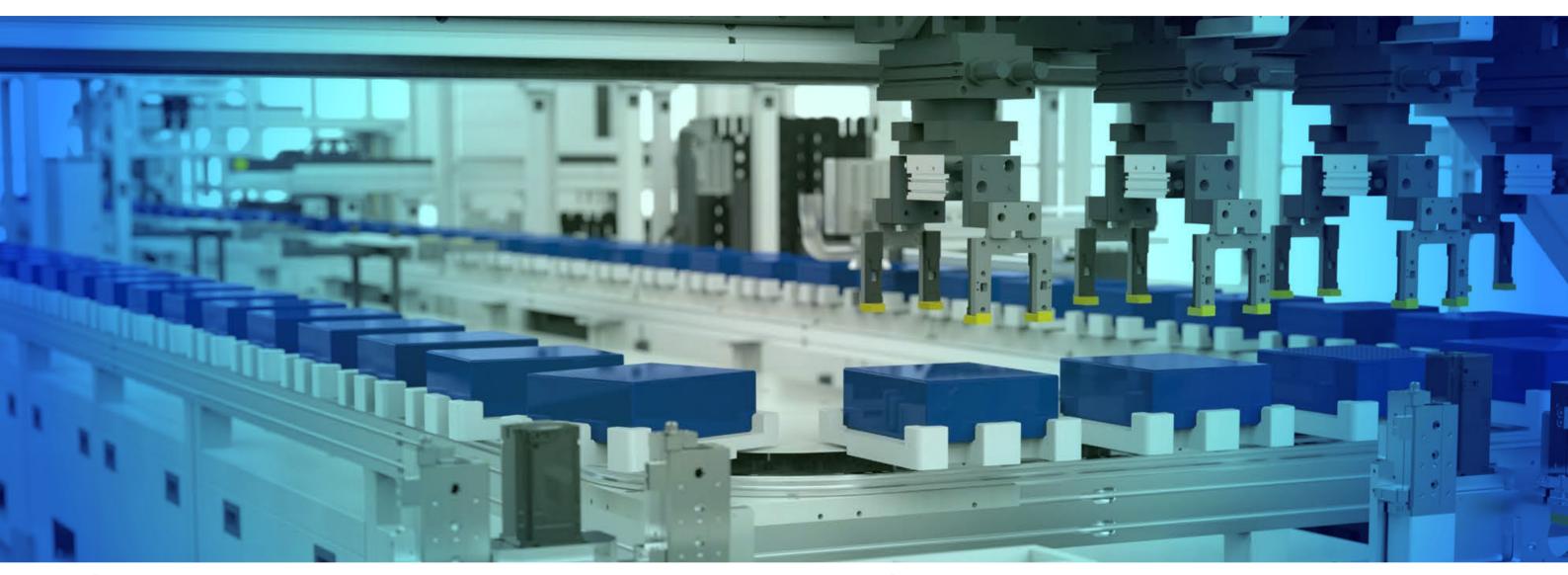


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## **CORE COMPENTENCE OF THE COMPANY**

R&D | Quality | Production | After-sales





#### Independent R&D Capabilities

- 1. With mature R&D and design capabilities for core energy storage components such as energy storage battery PACK, BMS, EMS, and PCS.
- 2. The core R&D team all come from leading companies in the industry and have rich experience in energy storage product design and development.
- **3.** Owns multiple national patents, products have independent intellectual property rights, and have passed multiple standard certifications.



#### Complete Quality Inspection

- 1. Certified with quality management systems such as ISO14001, ISO45001, and ISO9001.
- 2. Products are certified with standards such as UN38.3, IEC62619/63050/63056/61000.
- 3. Fully automated production line, 11 CTQ key processes, 41 quality control points, effectively ensuring quality.
- 4. WMS, MES, ERP, full-process control of the entire material receiving, production, and shipping process.



#### Intelligent Manufacturing Factory

- 1. Equipped with advanced 5G fully automated battery module and PACK production lines.
- 2. Provide customers with all-round customized services based on precision processing and high-quality performance testing.
- **3.** Possess standard and complete production and manufacturing specifications, full-process technical quality control, and high-standard control of energy storage battery production quality.



#### Professional After-sales Service

- 1. Business covers more than 150 countries and regions around the world, with over 40 global sales and after-sales service outlets, which can help customers achieve timely and reliable after-sales technical support and services anytime and anywhere.
- 2. With 12 overseas physical manufacturing bases, it can provide rapid spare parts response capabilities to solve customers' multiple after-sales concerns.

# **ENERGY STORAGE PRODUCT CORE ADVANTAGES**



#### High Quality Battery

- 1. High safety Lithium iron phosphate battery cells
- 2. High energy density Store more energy under the same conditions
- 3. Long cycle life Design life up to 15 years
- 4. High reliability Top supplier in the industry



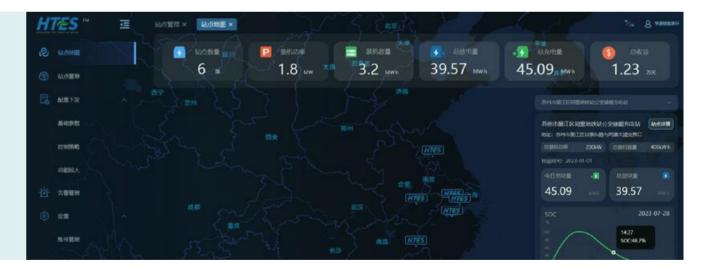
#### Efficient EMS

- 1. High reliability Meets the requirements of rigorous MEC Level 4/5 tests
- 2. High speed Adopts advanced cloud-edge collaborative high compression ratio technology to achieve high speed and low traffic
- 3. Full compatibility Supports common communication protocols such as RS485, CAN, and IEC 61850/104.



#### Safe And Stable BMS-battery Management System

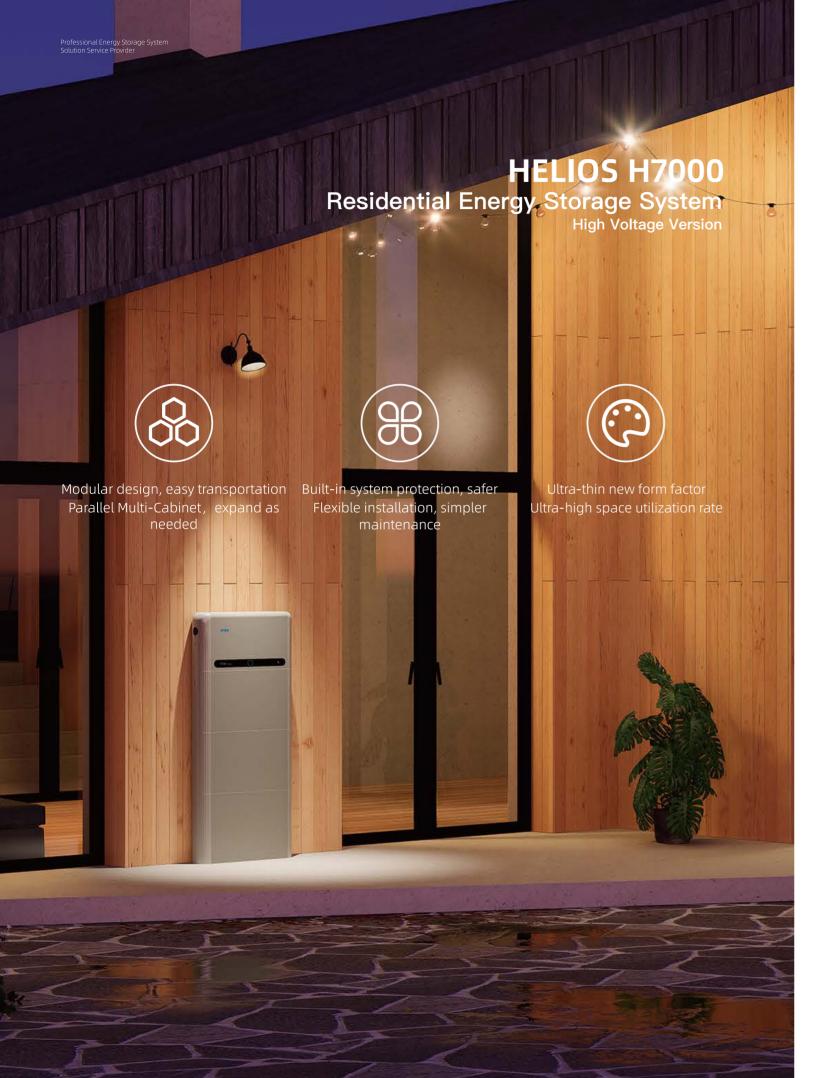
- 1. High measurement accuracy Voltage and current sampling error ≤±0.2%
- 2. Precise state estimation SOC error ≤5%
- 3. Ultra-low power consumption System power consumption ≤9W
- 4. High safety Three-level safety protection, 1500V withstand voltage test



#### Smart Cloud Platform

- 1. Cloud expansion Self-developed source code, supports API, and realizes VPP virtual power plant
- 2. Multi-support Compatible with new energy devices such as photovoltaic, energy storage, and charging piles
- 3. Intelligent monitoring Realizes functions such as data collection, monitoring, statistics, and reporting for hundreds of thousands of devices.





- Quick-connect connector
- High-performance LFP battery
- Fixed bracket
- Convenient installation
- High resilience rubber cushioning pad
- Mature and reliable BMS
- Exquisite shell
- SOC Display

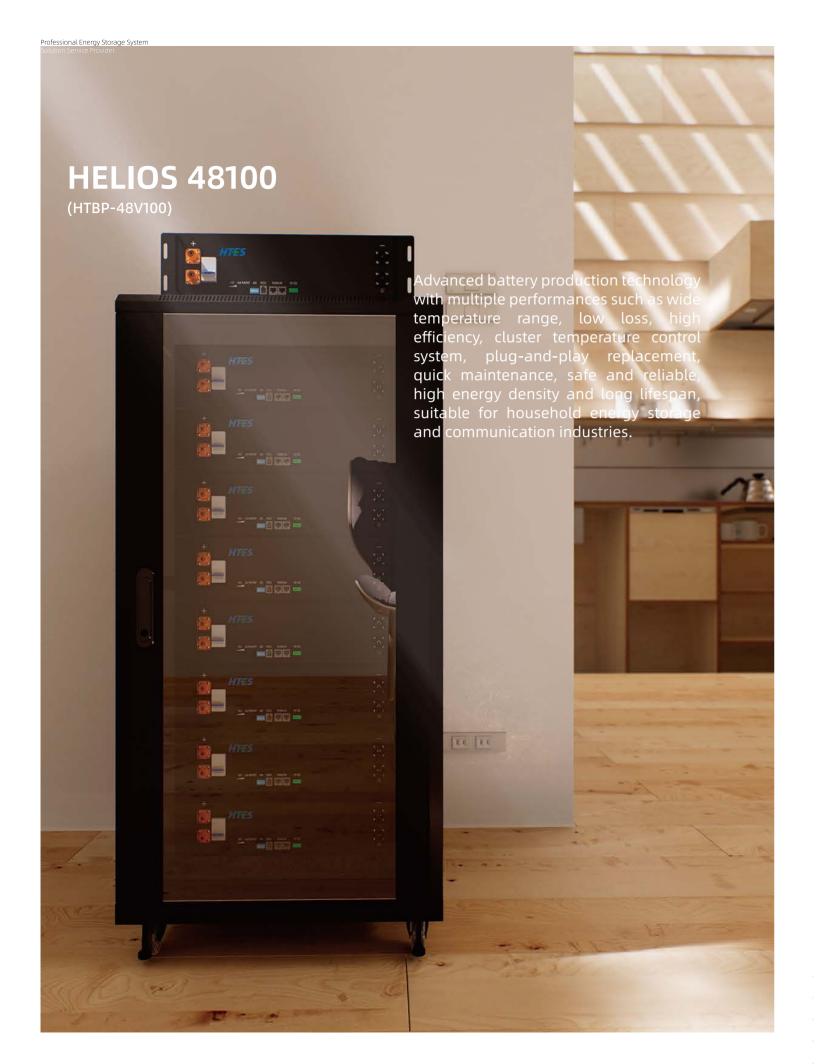
		15.36 kWh
	11.52 kWh	
7.68 kWh	<u>*</u>	
<u>*</u>		



Category	HTESS-7.6K153C	HTESS-11.5K230C	HTESS-15.3K307C
Cell Type		LFP	
Standard Pack - String Union Number	er	24S1P	
Standard Pack - Rated Voltage		76.8V	
Standard Pack - Nominal Capacity	1	50Ah	
Standard Pack - Nominal Energy		3.84kWh	
Standard Pack - Weight		40±1kg	
Standard Bag - Size		718±2*365±2*152±2mm	
Standard Pack - Level Of Protection	n	IP54	
Number Of Standard Packs	2/pack	3/pack	4/pack
System Rated Voltage	153.6V	230.4V	307.2V
System Operating Voltage Range	134.4~172.8V	201.6~259.2V	268.8~345.6V
System Nominal Energy	7.68kWh	11.52kWh	15.36kWh
Rated Charge And Discharge Current		25A	
Maximum Charge And Discharge Current	t	30A	
Communication Method		CAN/RS485	
System Dimensions (L*H*D)	718±2*1125±2*152±2mm	718±2*1490±2*152±2mm	718±2*1855±2*152±2mm
System Weight	105±1	148±1	190±1
System Protection Level		IP54	
Cooling Method		Natural Cooling	
Operating Temperature	charge:	3°C ~ 55°C/discharge: -20°C	~ 55°C
Relative Humidity Range		5~95%	
Installation Method		Landing	
Maximum Working Altitude		2000m	
Color Selection: Pearl white (standard o	ptional) Zephyr grey (additional price matching	Time's green (additional price matching)	Ink blue orchid (additional price matching)













- 3U standard chassis High compatibility.
- Real-time monitoring of battery cells/voltage, and temperature.
- Advanced battery management system Safe and reliable.
- Accurate SOC algorithm with automatic calibration.
- Maximum parallel connection of 15
- Uniform function of battery cells extending battery life.

ITEMS	SPECIFICATION	REMARK
Battery Type	LFP	
Nominal Capacity	100.0 Ah	
Nominal Voltage	51.2 V	
Nominal Energy $^{\oplus}$	5.12kWh	
Rated Charge Voltage	56.8 V	
Max. Continuous Charge Current	50 A (1C)	
Discharge Cut-off Voltage	42 V	
Max. Continuous Discharge Current	50 A (1C)	
Allowed OperationTemperature Range	charging: 3-55°C discharging: -20~55°C	Recommended temperaturerange: 15℃ ~35 ℃
Weight	Approx. 41 kg	
Cycle life <sup>©</sup>	6000 cycles 15 years design life <sup>®</sup>	
Relative Humidity	<95% RH	
Safety	IEC 62619;ENIEC 61000-6-1/2/3/4	
Note: ① Test conditions: Based on the date of manufacture and batch, ② Based on the test date and batch, the data is measured at +25 ③ At +25°C with 70% depth of discharge (DoD), 0.2C charge and	5°C with a depth of discharge (DoD) of 70%, a charge-disc	charge rate of 0.2C, and an EOL ≥ 70%.











Intelligent protection

Long service life

Easy operation and maintenance

High-temperature resistant

Easy installation

# **HELIOS HS6K**

Residential Single-Phase Hybrid Inverter

Hengtong Energy Storage's photovoltaic energy storage integrated inverter is specially designed for residential and small commercial applications. It is compact, highly efficient, equipped with various protection functions, safe, reliable, intelligent, stable, and has a high protection level (IP65), with strong adaptability.





Photovoltaic Energy Storage Integrated System



Multi-power Coverage



**High Compatibility** 



Strong Battery Voltage Adaptability Supports Virtual Power Plant (VPP)



**High Reliability** 



# 3-6kW

- Residential Smart Energy Management Terminal.
- Two charging modes available: photovoltaic and arid power.
- Millisecond-level switching between grid-connected and off-grid modes, supporting seamless and uninterrupted intelligent switching.
- Plug-and-play design, easy installation.
- Protection level up to IP65, wall-mounted design, space-saving.
- Cloud + intelligent data analysis, automatic sleep, UPS function for critical loads.



Model		HT-HBI-S3SH V1	HT-HBI-S4SH V1	HT-HBI-S5SH V1	HT-HBI-S6SH V1
Off-grid Parameters	Rated Output Power	3000W	4000W	5000W	6000W
	Rated Voltage	220V/230V/240V			
id ete	Rated Frequency		50,	/60Hz	
S	Rated Output Current	13.6A	18.2A	22.7A	27.2A
PΩ	Output THDu		<	<2%	
Grid-connected Parameters	Rated Output Power	3000W	4000W	5000W	6000W
me	Maximum Output Current	13.6A	18.2A	22.7A	27.2A
nne	Rated Grid Voltage		220V/2	230V/240V	
ecte	Maximum Grid Input Current	13.6A	22.7A	-	27.2A
<u>Q</u>	Grid Voltage Range		184	1-264V	
	Frequency Range		45-	-65Hz	
	Maximum Input Power	4500Wp	6000Wp	7500Wp	9000Wp
_	Starting Voltage		Ġ	95V	
Photovoltaic Input	Maximum Input Voltage	600V			
	MPPT Voltage Operating Range	80-550V			
	Full Load MPPT Voltage Range	350-500V			
J.	MPPT Quantity			2	
npu	Maximum Number Of Input Strings Per	MPPT		1	
Ξ+	Rated Input Voltage		3	360V	
	Maximum Input Current	13A/13A			
	Dimensions (W*H*D)		500mm*47	'0mm*180mm	
	Weight	23kg			
	Noise	<25dB(A)			
Sta	Operating Temperature	-25°C~+60°C			
nda	Cooling Method	Natural cooling			
ard	Protection Level	IP65			
Par	Human-computer Interaction	LED/APP/WIFI/Bluetooth			
am	Communication Interface	RS485/CAN/DRED/DO/Parallel port			
Standard Parameters	Protection	DC switch, DC insulation detection, Residual current detection, Anti-islanding protection, Overvoltage and overload protection, AC short-circuit protection, Overvoltage level: AC side: Level III, Battery and PV: Level II, Surge protection, Lightning protection·TYPE II, Input reverse insertion protection (PV & battery)			
Ce	Safety Certification		IEC 62109-1, IEC 62109-	-2, EN 62109-1, EN 62109-2	2
r <del>t</del> ifi	EMC Certification	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4			
Certification	Grid Connection Certification	VDE-AR-N 4105, G98, G99, CEI O-21, EN50549 NRS 097-2-1, AS 4777.2, R25			
					10.00

# HELIOS HT20K Residential Three-Phase Hybrid Inverter Hengtong Energy Storage's photovoltaic energy storage integrated inverter is specially designed for residential and small commercial HTES applications. It is compact, highly efficient, equipped with various protection functions, safe, reliable, intelligent, stable, and has a high protection level (IP65), with strong adaptability. Photovoltaic Energy **High Compatibility** Power 10-20 kW Storage Integrated System Multi-power Coverage Strong Battery Voltage Adaptability Supports Virtual Power Plant (VPP)

# 10-20kW

- Residential Smart Energy Management Terminal.
- Two charging modes available: photovoltaic and grid power.
- Millisecond-level switching between grid-connected and off-grid modes, supporting seamless and uninterrupted intelligent switching.
- Plug-and-play design, easy installation.
- Protection level up to IP65, wall-mounted design, space-saving.
- Cloud + intelligent data analysis, automatic sleep, UPS function for critical loads.



Q	Model Name	HT-HBI-T10SH V1	HT-HBI-T12SH V1	HT-HBI-T15SH V1	HT-HBI-T20SH V1
Off-grid	Nominal Output Power	10kW	12kW	15kW	20kW
r:d	Nominal Voltage		3/N/PE.220/380	Vac.230/400Vac	
Output	Nominal Frequency	50/60Hz			
tpu	Nominal Output Current	15A	18A	22.5A	30A
7	Output THDu		<3	%	
Q	Nominal Output Power	10kW	12kW	15kW	20kW
g-g	Max .Output Power	11kVA	13.2kVA	16.5kVA	22kVA
<u>q</u>	Max. lutput Current from Grid	30A	35A	44A	60A
On-grid Paramete	Max. Output Current	16A	20A	24A	32A
ame	Grid Voltage Range		184-2	276V	
eter	Nominal Grid Voltage		3/N/PE.220/380.23	30/400V.240/415V	
	Max.Input Power	15000Wp	18000Wp	22500Wp	30000Wp
	Starting Voltage		200	OV	
	Max.Input Voltage	1000V			
PV	MPPT Voltage Range	180-960V			
PV Input	Full Load MPPT Voltage Range	250-850V	290-850V	350-850V	450-850V
tuc	Number of MPPT	2			
	Max.Input String Per MPPT	2			
	Nominal Input Voltage		600	OV	
	Max.Input Current		25A/	25A	
	Size(W*H*D)		573mm*509mm*219mm		
	Weight		351	(g	
	Noise		<45d	B(A)	
0	Operating Temperature Range		-25°C^	-60°C	
ene	Cooling Method		Natural (	Cooling	
General Data	Ingress Protection Grade		IP6	55	
Da	Mornitoring		APP/WIFI/I	Bluetooth	
a	Communication Port	RS485/CAN/DRED/DO/Parallel port			
			oltage Protection, AC Overc		
	Protection A	anti-islanding Protection, Re			etection.Surge Protection,
$\cap$	CE IVE	PV Reverse Polarity Protection, Lightning Protection IEC 62109-1, IEC 62109-2, EN 62109-1, EN 62109-2			
ert	CE_LVD				
ific	CE_EMC		0-6-1, EN61000-6-2,		
Certification	Grid	VI	DE-AR-N 4105,G98, G		)
n			NRS 097-2-1, A	AS 47 / 1.2, K25	



Model	HTES-48100-VTA1	Allowed Operating Temperature Range	0~60°C(Charge) -20~60°C(Discharge)
Cell Type	LFP	Max. Continous Charge Current	100A@25°C
Nominal Energy	4.8kWh	Max. Continous Discharge Current	100A@25°C
Nominal Capacity	100Ah	Recommended Charge Current	20A@25°C
Nominal Voltage	48V	Nominal Charge Voltage	54V
Operating Voltage Range	40.5V <b>-</b> 54V	IP	IP20
Dimensions(W*H*D)	445*133.5*450mm	Expansion	Max. 64 units in parallel
Weight	41kg	Communication	RS485 CAN/SNMP(Optional)
Discharge Cut-off Voltage	40.5V	Cycle Life	3500@80% DoD, 25°C
Allowed Humidity Range	<=95% RH	Certification	UN38.3, UL1973, IEC 62619, IEC 62620, CE-EMC

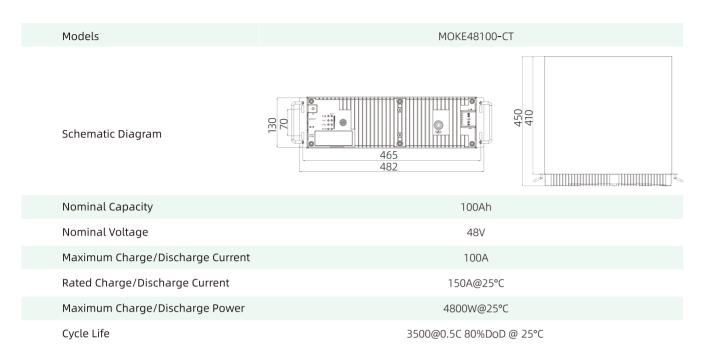
# Backup Power For Base Stations



- 3U standard chassis High compatibility
- Real-time monitoring of battery cells/ voltage, and temperature
  - Advanced Battery management system Safe and reliable
- Accurate SOC algorithm with automatic calibration
- Maximum Parallel connection of 64
- Uniform function of battery cells Extending battery life

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#### **SPECIFICATION**



Weight	43kg	
Operating Voltage Range	40.5V-54V	
Discharge Cut-off Voltage	54.0V	
Nominal charge Voltage	40.5V	
Operating Temp. Range/Charge	0°C-60°C	
Operating Temp. Range/Discharge	-20°C-60°C	
Storage Temperature	0°C-45°C	
Communication RS485, CAN; 2Dry Contact		
Function	Peak Shaving/Mix Up With Lead-acid/Normal Lithium Battery	
Allowed Humidity Range	5%-95%	
Atmospheric Pressure	70kPa-106kPa	
IP	IP20	
Altitude	<2000m	
Protections	Overcharge/Overdischarge/Overtemperature/Overcurrent/Short Circuit etc.	
Design Standard	UN38.3, CE-EMC, IEC62619	

# MOKE 48100-CT

TELECOM BACKUP LFP BATTERY SOLUTION

Adopting intelligent lithium battery control strategy, it is mainly used for 48V communication backup power supply scenarios. It has the characteristics of maintenance-free, high specific energy and long cycle life.















# COMMERCIAL AND INDUSTRIAL ENERGY STORAGE SOLUTION

## Commercial And Industrial Energy Storage Applications

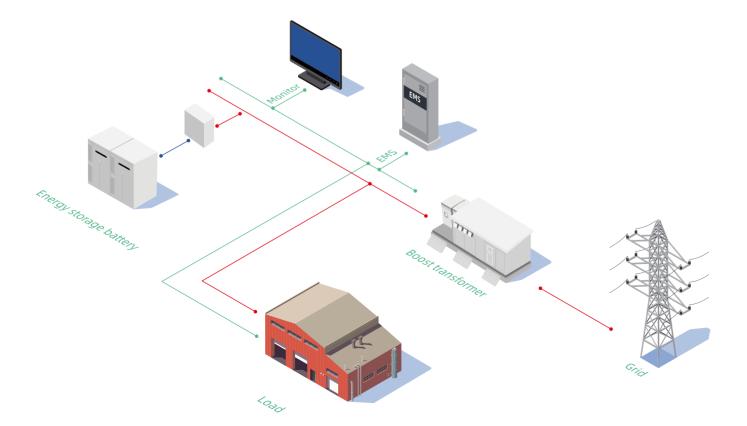
Photovoltaic Self-Consumption and Grid Integration
 Photovoltaic generation prioritizes supplying loads, followed by charging the battery, and any excess electricity can be fed into the grid.
 When the photovoltaic generation is low, prioritize discharging the battery for supplementation.

## Critical Load Backup Power Assurance

The battery is kept fully charged. During a power outage, it is used as an emergency power supply to ensure power supply for important loads and manage demand charges. When there is a grid, the battery discharges to reduce the peak when the purchased power exceeds the set value. During a power outage, the battery discharges to the load for consumption.

#### Peak-Valley Price Arbitrage

In regions with peak-valley electricity pricing, the energy storage system charges during off-peak hours and discharges during peak hours to capitalize on the peak-valley price difference.





Expandable through the combination of multiple cabinets, Wide Capacity Design Range, Easy and Convenient On-Site Assembly.



Independent control for each cluster and channel, discharge depth exceeding 90%.



Liquid cooling constant temperature control can control the temperature difference of the battery cells within 3°C, effectively ensuring the safety and high-performance operation of the system.



Well-rounded application features, suitable for various scenarios such as industrial parks, microgrids, commercial complexes, etc.

# **HELIOS B233/372**

Outdoor Liquid-Cooling Energy Storage System

#### **Product Features**

Ultimate safety Outdoor cabinet IP55,PACK IP67

Seamless switching redundant power supply

Comprehensive protection real-Time monitoring

Three-phase four-wire, no isolation transformer required

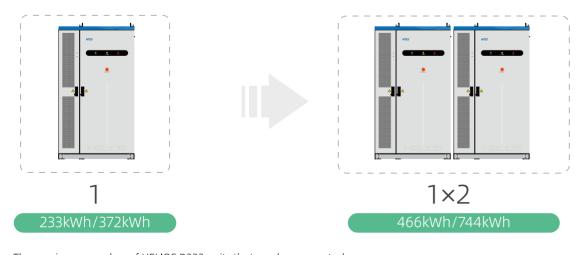
Multi-unit parallel connection and coordinated control

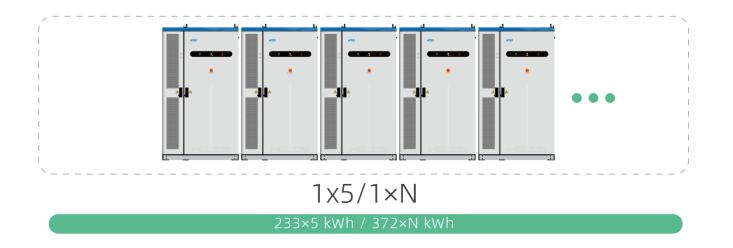
	Category	HTAES2-L100K233V1	HTAES1-L372	
	Cell Type	LFP3.2V/280Ah		
	System Rated Energy	233kWh	372kWh	
	Battery Voltage Range	DC 728V~936V	DC 1164.8V~1497.6V	
	Ac-side Rated Power	100kW	1	
System Parameters	Discharge Depth	90%DOD		
	System Efficiency	≥88%		
n Par	Communication Interfaces	CAN/RS485		
amet	Protection Level	IP55		
SZE	Noise	<75dB		
	Thermal Management Technology	Liquid cooling(Temperature difference≤3℃)		
	System Combination	233*N (1≤N≤5)	372*N (1≤N≤N)	
	Dimensions(L * D * H)	1345×1396×2350 mm	1345×1396×2350mm (System without PCS)	
	Weight	2.8t	3.8t	
AC-S	Rated Voltage/rated Voltage Range	380V/380V±10%	1	
iide P	Rated Frequency/rated Frequency Range	50Hz/50±2.5Hz	1	
AC-Side Parameters	Power Factor	-1+1	1	
eters	Current Distortion Rate	<3%	1	



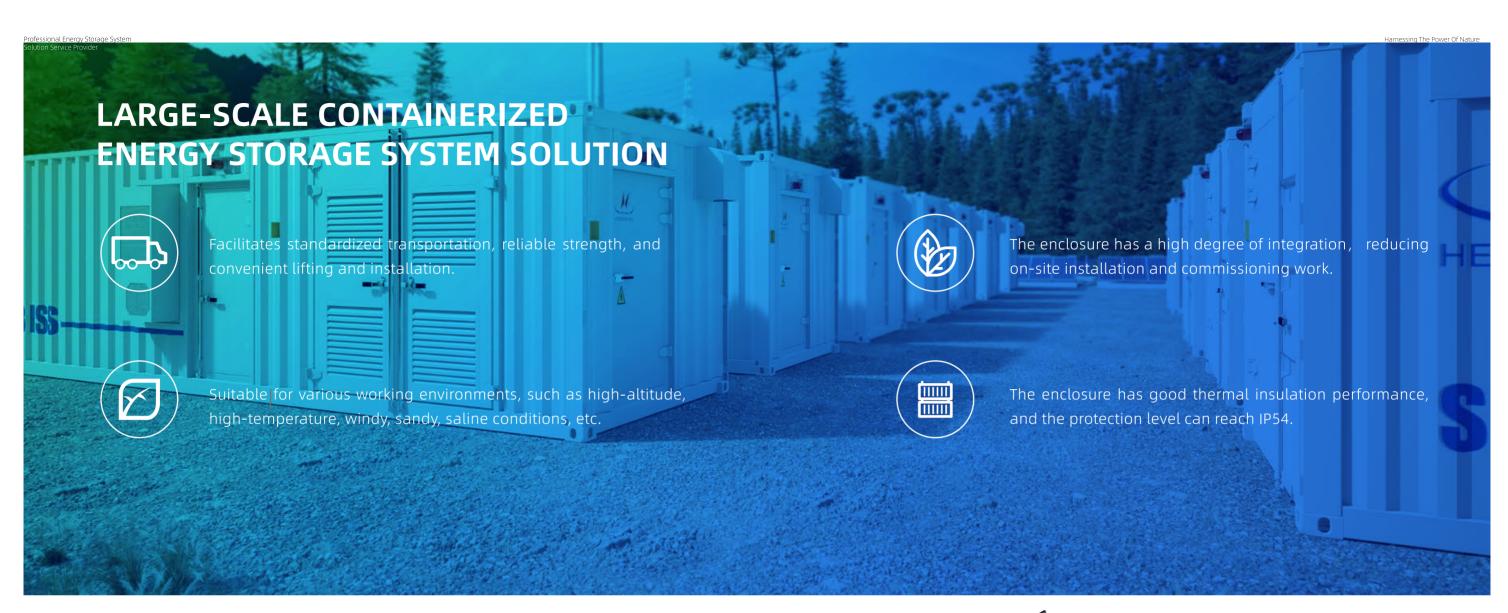


Energy Storage Combination Cabinet, Expandable with Multiple Cabinets in Parallel





Note: The maximum number of HELIOS B233 units that can be connected to the grid is 10, and the maximum number of units that can be connected off-grid is 5.





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# **HELIOS C20**

Standard Capacity: 3.72MWh

Excellent performance of battery cells, long service life.

Cloud monitoring, intelligent management, and operation and maintenance.

Integrated liquid cooling plate in the enclosure, reducing the risk of leakage.

Small footprint, high integration, convenient for overall transportation.

Dynamic temperature control, higher efficiency, stable battery cell temperature, minimal temperature difference.

Can be spliced, flexible arrangement, supports PACK-level fire protection.



Generation side



Wind power generation side



Photovoltaic generation side



Microgrid



Industrial and commercial



Grid-side

Product Model		HT-ESS-3.72MWh-L
Product Type	LFP battery bank	
Configuration	10*(1P52S*8)	
Rated Energy		3.72MWh
Rated Voltage		1331.2V DC
Voltage Range		1164.8~1497.6V DC
Rated Charging Power		1863.68kW
Rated Discharging Power		1863.68kW
Auxiliary Power Supply	3AC 380480V	
Environment Condition	Storage Temperature	-25℃~55℃
	operation Temperature	-25°C~55°C
	Application altitude	≤4000 m (Derating, up to 4000 m)
General Parameters	Size(L*W*H)	6058*2462*2896mm
	Weight	≈35t
	IP Level	IP55 (Battery Room) IP45 (Electrical Room)
	Cooling mode	Liquid Cooling
	Communication protocol	CAN, TCP/IP
	Coolant	50% Ethylene glycol aqueous solution



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# **APPLICATION CASES**



C&I Energy Storage in Italy

60kWh

Napoli, Italy



1000kWh

**Ջ** Israel ⋅ Eilat



3.5MWh

South Africa-Johannesburg



2MW/8MWh

**♀** Jiangsu · Suzhou · Changshu

0.9MW/1.8MWh

**Ջ** Zhejiang · Taizhou



3MW/6MWh

**Ջ** Zhejiang · Taizhou



PV 52kWp -Energy Storage100kW/155kWh

🙎 Jiangsu · Suzhou · Wujiang

PV 400kWp-Energy Storage 250kW/500kWh

**Ջ** Jiangsu ⋅ Zhenjiang