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Haitai Solar



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FULL-SCENARIO ENERGY-STORAGE SOLUTIONS
MAXIMIZE THE VALUE OF EVERY KILOWATT-HOUR

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About Haitai Solar

A Comprehensive Green-Energy Enterprise Rooted in China, Serving the Globe

Founded in 2006, Haitai New Energy Technology Co., Ltd. started with PV module manufacturing and expanded into integrated energy. Adhering to “Quality Creates Value”, we have won global trust with reliable products and professional services. Listed on the Beijing Stock Exchange on August 8, 2022 (Stock Code: 920985), we carry out the wind-solar-hydrogen-storage integrated strategy to build a synergistic new energy industrial ecosystem and deliver one-stop green energy solutions worldwide.

Going forward, we will stay focused on this strategy: taking PV as the foundation, energy storage as the core, hydrogen energy as the development direction, and integrated energy as the carrier. We drive industrial upgrading via technological innovation, protect the environment with clean energy, support rural revitalization through industrial development, and advance global low-carbon transition, bringing green energy to regions and households worldwide.

2006
Established

2022
BSE Listing

920985
Stock Code

TOP500
Global New Energy Enterprise

100+
Global Sales Regions

200+
Global Partners



About Haitai Digital Energy

Tangshan Haitai Digital Energy Technology Co., Ltd. was established in 2021, and is a global provider of performance integrated products and system solutions under Haitai Solar. It has a fully automatic, intelligent, and high-efficiency lithium battery module and PACK production line with a single-line capacity of 2GWh.

The company is always customer-need oriented, driven by technological innovation, and leverages leading independent innovation capabilities and rich R&D experience to provide customers with full lifecycle system solutions including demand analysis, solution design, system integration, installation and commissioning, and acceptance and delivery.

2021
Founded

2GW
Production capacity

Advanced R&D Capabilities

We co-develop PCS systems with Tsinghua University to realize triple-mode intelligent control for safe and efficient storage operation. We own core technologies including intelligent liquid cooling, thermal runaway early warning and battery equalization, supporting multi-scenario application requirements.

Intelligent Production

Our workshop is equipped with KUKA robots and laser welding equipment. We set 256 quality control checkpoints across cell, module and PACK processes, implementing strict full-process quality control to guarantee stable and consistent product performance.

Customized Services

We offer one-on-one customized system and O&M solutions. Our products support grid-tied, off-grid and micro-grid modes, with modular capacity expansion and flexible installation. We provide end-to-end full-lifecycle services from project planning to final acceptance.











Production Environment

Clean-Shop Layout & Material Logistics

Haitai Digital Energy's prismatic-module and PACK automated production lines are housed inside group-standard Li-ion-battery clean manufacturing workshops built per energy-storage PACK specifications. The whole floor is anti-static, equipped with dust-proof, ventilation, exhaust and dedicated fire-safety & security systems to mitigate process risks caused by static electricity, temperature-humidity deviation and dust. Man-material separation workflow is adopted. Cell raw materials, semi-finished goods and finished products flow in one-way segmented zones to avoid cross-material contamination and secure consistency of energy-storage modules and PACK assemblies.

Automated Process & In-line Inspection

Production lines cover core processes including cell feeding, precision module assembly, laser welding, wiring harness integration, BMS integration, gas-tightness testing, hipot insulation test and full-unit power-on aging. Key stations run on automated equipment with AI vision in-line inspection to monitor quality in real-time for critical processes.

Digital Traceability & Multi-Scenario Production Capacity

Workshops connect to MES (Manufacturing Execution System). Each energy-storage unit gets a unique material ID. Process & test data are automatically logged, enabling full-process traceability from cell incoming to finished-goods outbound, supporting mass production for residential, C&I, generation-grid-side and marine-vessel energy-storage products.

Workshop Basic Operating Conditions & Hardware Parameters	
Premise Type	Standard industrial production workshop
Ambient Temperature	0~40℃
Relative Humidity	25%~75%
Prismatic-Module Assembly Line Dimension	L×W×H ≤ 100m×5.5m×3.5m
Floor Load-Bearing Capacity	2000Kg/ m^2
Power Supply	380 VAC±10%, 50 Hz; total power 350 kW (excluding charge-discharge load)
Compressed Air	0.7~1.5 Mpa, total air consumption ≥ 4000 L/min



Product Portfolio

Residential Energy Storage

Portable mobile type / Stackable type / All-in-one unit / PV-storage integrated machine / Energy-storage inverter

Positioning: Store PV power in daytime, utilize low-tariff off-peak electricity at night, and guarantee power supply during grid outages

Commercial & Industrial (C&I) Energy Storage

Outdoor cabinet-type / Liquid-cooled energy-storage system

Positioning: Peak-valley load shifting, demand-side management and backup power guarantee

Generation-&-Grid-Side Energy Storage

Container-type energy-storage system

Positioning: Large-scale peak-shaving & frequency-modulation, grid-stability support

Marine-Vessel Energy Storage

Marine energy-storage system

Positioning: Green shipping, silent navigation and fuel-cost reduction

Residential Energy Storage

1 kWh Portable Energy-Storage Battery

HT-PE0001



- LiFePO4 cells for safety & long service life
- Seamless mains-PV auto-switching
- Intelligent fan cooling for stable operation
- Compact & lightweight for easy carrying

Item	HT-PE0001
Cell Chemistry	Lithium-Iron-Phosphate（$LiFePO_4$）
Rated Energy	1000Wh
Rated Power	500W
AC Input Voltage Range	90-280V±5V
AC Output Voltage Range	230V±5V
Nominal Cell Voltage	3.2V
Cooling Mode	Forced air by fan
Dimension (W×D×H)	339×149×273mm
Weight	8kg
Operating Temperature	-10℃ ~+40℃
Max. Altitude	≤ 3000m
Relative Humidity	20%~95% RH
PV Input Voltage Range	DC11~55V
PV Max. Input Current	10A
PV Max. Output Current	80A
PV Max. Output Power	300W
USB-A Port	1 个 5V 1A
Type-C Port	/
AC Output Socket	2 个 230VAC
AC Input Socket	1 个 230VAC
DC Input Port	1 个 300W

Residential Energy Storage

2 kWh Portable Energy-Storage Battery

HT-PE0002



- LiFePO4 cells for safety & long service life
- Seamless mains-PV auto-switching
- Intelligent fan cooling for stable operation
- Compact & lightweight for easy carrying

Item	HT-PE0002
Cell Chemistry	Lithium-Iron-Phosphate（$LiFePO_4$）
Rated Energy	2009Wh
Rated Power	1000W
AC Input Voltage Range	90-280V±5V
AC Output Voltage Range	230V±5V
Nominal Cell Voltage	3.2V
Cooling Mode	Forced air by fan
Dimension (W×D×H)	330×168×408mm
Weight	20kg
Operating Temperature	-10℃ ~+40℃
Max. Altitude	≤ 3000m
Relative Humidity	20%~95% RH
PV Input Voltage Range	DC11~55V
PV Max. Input Current	15A
PV Max. Output Current	100A
PV Max. Output Power	500W
USB-A Port	1 个 5V 1A
Type-C Port	1 个 5V 1A
AC Output Socket	2 个 230VAC
AC Input Socket	1 个 230VAC
DC Input Port	1-channel MC4 connector

Residential Energy Storage

5.12 kWh Low-Voltage Stackable Residential Battery

HTDESS LP5.12×1/2/3/4 IRD1



- Modular stacking for flexible capacity expansion
- Safe & durable LiFePO₄ cell chemistry
- IP65 rating for excellent environmental adaptability
- Supports both grid-tied and off-grid PV systems

Item	HTDESS LP5.12×1 IRD1	HTDESS LP5.12×2 IRD1	HTDESS LP5.12×3 IRD1	HTDESS LP5.12×4 IRD1
Total Battery Capacity	5.12kWh	10.24kWh	15.36kWh	20.48kWh
Nominal Voltage	51.2V			
Dimension (W×D×H)	600×210×512mm	600×210×812mm	600×210×1112mm	600×210×1412mm
Weight	63kg	113kg	163kg	213kg
Max. Parallel Stack Strings	4 strings			
Recommended Charge-Discharge Current	50A	100A	150A	200A
Max. Charge-Discharge Current	100A			
Operating Temperature	Charge 0~55℃ ; Discharge -20~55℃			
Application Scenario	Under outdoor eaves			
Max. Altitude	< 3000m			
Relative Humidity	5%~95% RH			
Cooling Mode	Natural convection			
Cell Chemistry	Lithium-Iron-Phosphate（$LiFePO_4$）			
IP Rating	IP65			
Cycle Life	DOD 80% 4000cycles (25℃)，0.5C/0.5C			
Communication Interfaces	CAN/RS485			
Optional & Standard Functions	Standard: unit-level aerosol fire suppression;Optional: heating function			

Residential Energy Storage

5.12 kWh High-Voltage Stackable Residential Battery

HTDESS HP5.12×3/4/5/6 IRD1



- LiFePO4 cells deliver high safety & long cycle life
- Automatic switching for mains and PV power
- Optimized fan cooling for steady performance
- Compact stackable structure for flexible installation

Item	HTDESS HP5.12×3 IRD1	HTDESS HP5.12×4 IRD1	HTDESS HP5.12×5 IRD1	HTDESS HP5.12×6 IRD1
Total Battery Capacity	15.36kWh	20.48kWh	25.60kWh	30.72kWh
Nominal Voltage	153.6V	204.8V	256.0V	30.7.2V
Dimension (W×D×H)	528×420×840mm	528×420×1040mm	528×420×1240mm	528×420×1440mm
Weight	161.5kg	210kg	258.5kg	307kg
Max. Parallel Stack Strings	4 strings			
Recommended Charge-Discharge Current	50A			
Max. Charge-Discharge Current	100A			
Round-trip Efficiency	≥ 95%			
Operating Temperature	Charge 0~55℃ ; Discharge -20~55℃			
Application Scenario	Under outdoor eaves			
Max. Altitude	< 3000m			
Relative Humidity	5%~95% RH			
Cooling Mode	Natural convection			
Cell Chemistry	Lithium-Iron-Phosphate（$LiFePO_4$）			
IP Rating	IP65			
Cycle Life	DOD 80% 4000cycles (25℃)，0.5C/0.5C			
Communication Interfaces	CAN/RS485			
Optional & Standard Functions	Standard: unit-level aerosol fire suppression;Optional: heating function			

Residential Energy Storage

5 kWh Wall-Mounted Residential Battery

HT-PE0005-05-2h

- High-safety design for household scenarios
- Multi-protocol compatible, flexible capacity expansion
- Ultra-long cycle life with superior cost-efficiency
- Compact wall-mount design to save space



Item	HT-PE0005-05-2h
Cell Chemistry	Lithium-Iron-Phosphate（$LiFePO_4$）
Nominal Voltage	51.2V
Rated Energy	5.12kWh
Cycle Life	DOD 95% 6000cycles (25℃)，25℃ /0.5C
Operating Voltage Range	44.8~57.6V
Communication Ports	RS232/CAN/RS485
Scalability	Up to 15 units
Recommended Charge-Discharge Current	50A
Max. Continuous Charge-Discharge Current	100A
Cooling Mode	Natural heat dissipation
Auxiliary Functions	Aerosol fire suppression / Bluetooth / Wi-Fi
Operating Temperature	Charge 0~55℃ ; Discharge -20~60℃
Storage Temperature	≤ 3 months: 20~45℃ ; >3 months: 25±3℃
Storage Humidity	65±20% RH
Max. Altitude	≤ 3000m
Installation Site	Indoor
IP Rating	IP20
Dimension (W×D×H)	554×160×502mm
Weight	approx. 48 kg
Mounting Method	Wall-mount

Residential Energy Storage

6 kWh Wall-Mounted Residential Battery

HT-PE0006-06-2h

- High-safety design for household scenarios
- Multi-protocol compatible, flexible capacity expansion
- Ultra-long cycle life with superior cost-efficiency
- Compact wall-mount design to save space



Item	HT-PE0006-06-2h
Cell Chemistry	Lithium-Iron-Phosphate（$LiFePO_4$）
Nominal Voltage	16.8-21.9 V
Rated Energy	6.02kWh
Cycle Life	DOD 95% 6000cycles (25℃)，25℃ /0.5C
Operating Voltage Range	42~58.4V
Communication Ports	RS232/CAN/RS485
Scalability	Up to 16 units
Recommended Charge-Discharge Current	157A
Max. Continuous Charge-Discharge Current	200A
Cooling Mode	Natural heat dissipation
Auxiliary Functions	Aerosol fire suppression / Heating film (optional)
Operating Temperature	Charge 0~55℃ ; Discharge -20~60℃
Storage Temperature	≤ 3 months: 20~45℃ ; >3 months: 25±3℃
Storage Humidity	65±20% RH
Max. Altitude	≤ 3000m
Installation Site	Indoor
IP Rating	IP20
Dimension (W×D×H)	520×230×400mm
Weight	approx. 50 kg
Mounting Method	Wall-mount

Residential Energy Storage

16 kWh Residential Energy-Storage Battery

HT-PE0016-16-2h

- High-safety architecture for home energy storage
- Multi-protocol fit for mainstream inverters
- Extra-long cycle life for cost-effective usage
- Compact floor-standing unit for simple installation



Item	HT-PE0016-16-2h
Cell Chemistry	Lithium-Iron-Phosphate（$LiFePO_4$）
Nominal Voltage	51.2V
Rated Energy	16.08kWh
Cycle Life	DOD 90% 6000cycles (25℃)，25℃ /0.5C
Battery Operating Voltage Range	44.8~57.6V
Communication Interfaces	RS232/CAN/RS485
Scalability	Up to 15 units
Recommended Charge-Discharge Current	100A
Max. Continuous Charge-Discharge Current	157A
Cooling Mode	Natural heat dissipation
Extended Functions	Aerosol fire suppression / Bluetooth / Wheels (optional)
Operating Temperature	Charge:0~55℃ ; Discharge:-20~60℃
Storage Temperature	≤ 3 months:20~45℃ ; ＞ 3 months:25±3℃
Storage Humidity	65±20% RH
Max. Altitude	≤ 3000m
Application Scenario	Indoor / Under outdoor eaves
IP Rating	IP65
Dimension (W×D×H)	500×230×867.5mm
Weight	Approx. 120 kg
Mounting Method	Floor-standing

Residential Energy Storage

ALL-IN-ONE Residential High-Voltage Stackable Energy-Storage All-in-One Unit

HT-PE0016-16/24/32-2h

- Integrated battery & 3-phase inverter, modular stacking
- IP65 protection with standard aerosol fire suppression
- 6000-cycle life for long-term home PV-storage
- Multi-communication for Bluetooth / Wi-Fi remote monitoring



Item	HT-PE0016-16-2h	HT-PE0024-24-2h	HT-PE0032-32-2h
Total Battery Capacity	16.08kWh	24.12kWh	32.15kWh
Nominal Voltage	481.6~657 V, nominal 600 V		
Cell Chemistry	Lithium-Iron-Phosphate（$LiFePO_4$）		
AC-side Nominal Voltage	400/380V		
Inverter Rated Power	8kW	12kW	15kW
Cycle Life	DOD 95% 6000cycles (25℃)，25℃ /0.5C		
Cooling Mode	Natural convection		
IP Rating	IP65		
Operating Temperature	Charge:0~55℃ ; Discharge:-20~60℃ (derating above 45℃)		
Storage Temperature	≤ 3 months:20~45℃ ; ＞ 3 months:25±3℃		
Storage Humidity	65±20%RH		
Max. Altitude	≤ 3000m		
Extended Functions	Standard: unit-level aerosol fire suppression;Optional: heating function		
Communication Modes	Wi-Fi、RS485、CAN、Bluetooth		
Application Scenario	Indoor, under outdoor eaves		
Dimension (W×D×H)	700×255×1340mm	700×255×1680mm	700×255×2020mm
Weight	Approx. 178 kg	Approx. 242 kg	Approx. 306 kg

Residential Energy Storage

Single-Phase Hybrid Inverter

HTDESS S3.0/4.0/5.0/6.0K G2



- ≥ 97.5% max efficiency, compact space-saving design
- Anti-reverse-flow & battery reverse-connection protection
- Smart home energy management terminal function
- Multi-unit parallel, compatible with Li-ion & lead-acid batteries

Item	HTDESS S3.0K G2	HTDESS S4.0K G2	HTDESS S5.0K G2	HTDESS S6.0K G2
Max. PV Input Power	4.5kW	6kW	7.5kW	9kW
Grid-tied Rated Output Power	3kW	4kW	5kW	6kW
Max. PV Voltage	550V			
MPPT Voltage Range	80~500 V, 2-channel			
Grid-tied Rated Voltage	230V，176~270V			
Rated Frequency	50/60Hz			
Power Factor	1 (0.8 leading ~ 0.8 lagging configurable)			
Grid-tied THDi	< 3%			
Off-grid Rated Power	3kW	4kW	5kW	6kW
Off-grid THDu	< 2%			
Overload Capacity	110%，60S /120%，30S /150%，10S			
Battery Compatibility	Lithium-ion battery, lead-acid battery; battery voltage 40~58 V			
Charge-Discharge Efficiency	96%; Max. efficiency 98%; European efficiency 97%; MPPT efficiency 99.90%			
IP Rating	IP65			
Cooling Mode	Natural cooling			
Operating Ambient Temperature	-25℃ ~+60℃			
Relative Humidity	0~95% RH (non-condensing)			
Dimension (W×D×H)	451×200×474mm			
Weight	18kg			
Display & Communication	LCD display screen; RS485 / Wi-Fi / 4G / CAN / DRM Opt			
Max. Altitude	4000 m (derating above 2000 m)			

Residential Energy Storage

Three-Phase Hybrid Inverter

HTDESS T6.0/8.0/10/12/15K G1



- ≥ 97.5% max efficiency, compact space-saving design
- Anti-reverse-flow & battery reverse-connection protection
- Smart home energy management terminal function
- Multi-unit parallel, compatible with Li-ion & lead-acid batteries

Item	HTDESS T6.0K G1	HTDESS T8.0K G1	HTDESS T10K G1	HTDESS T12K G1	HTDESS T15K G1
Max. PV Input Power	9kW	12kW	15kW	18kW	22.5kW
Grid-tied Rated Output Power	6kW	8kW	10kW	12kW	15kW
Max. PV Voltage	1000V				
MPPT Voltage Range	80~500 V, 2-channel MPPT				
Grid-tied Rated Voltage	380/400V，340~460V				
Rated Frequency	50/60Hz				
Power Factor	1 (0.8 leading ~0.8 lagging configurable)				
Grid-tied THDi	< 3%				
Off-grid Rated Power	6kW	8kW	10kW	12kW	15kW
Off-grid THDu	< 2%				
Overload Capacity	110%，60S /120%，30S /150%，10S				
Battery Compatibility	Lithium-ion battery, lead-acid battery; battery voltage 40~58 V				
Charge-Discharge Efficiency	97.5%~97.8%; Max. efficiency 97.9%~98.5%; European efficiency 97.2%~97.8%; MPPT efficiency 99.90%				
IP Rating	IP65				
Cooling Mode	Natural cooling				
Operating Ambient Temperature	-25℃ ~+60℃				
Relative Humidity	0~95% RH (non-condensing)				
Dimension (W×D×H)	566×220×596mm				
Weight	30kg	31kg	31kg	31kg	31kg
Display & Communication	LCD display screen; RS485 / Wi-Fi / GPRS / CAN				
Max. Altitude	4000 m (derating above 2000 m)				

Commercial & Industrial (C&I) Energy Storage

MPS Hybrid Inverter

MPS0030/0050/0100/0150/0250/0500



- Multi-interface, supplies single-phase & three-phase loads simultaneously
- DC-coupled, high efficiency, PV grid-connect at low battery
- Flexible PV configuration, easy expansion for micro-grid
- AC-DC redundant power supply, stable wide-temp operation

Item	MPS0030	MPS0050	MPS0100	MPS0150	MPS0250	MPS0500
Off-grid Rated Output Power	30kW	50kW	100kW	150kW	200kW	500kW
AC Nominal Voltage	400V					
AC Operating Voltage Range	320~460V					
Rated Frequency	50/60Hz					
Frequency Range	45~55Hz / 55~65Hz					
Grid-tied THDi	< 3%					
Power Factor	-1~+1 configurable (0.8 leading ~0.8 lagging)					
Overload Capacity	110% continuous operation					
Off-grid THDu	≤ 1% for linear load; ≤ 5% for non-linear load					
Max. PV Input Voltage	1000V					
MPPT Voltage Range	250~850 V; full-load range 450~850 V					
Battery Voltage Range	250~850 V (increases with model specs)					
Max. PV Power	36~720 kW (graded per model)					
Whole-unit IP Rating	IP20					
Cooling Mode	Air cooling					
Operating Temperature	-30℃ ~ +55℃					
Relative Humidity	0~95% (non-condensing)					
Dimension (W×D×H)	800×800×1900mm		1200×800×2050mm		(600×720×2050mm) ×1+1200×800×2050mm	(600×720×2050mm) ×2+1600×1050×2050mm
Weight	576/607kg	720/750kg	1120/1150/1180kg	1250/1280/1310kg	1980/2010kg	3265/3295/3325kg
Max. Operating Altitude	Max. 5000 m (derating above 3000 m)					
Display & Communication	Touch-screen LCD; BMS:RS485/CAN; EMS:RS485、TCP/IP					

Commercial & Industrial (C&I) Energy Storage

Outdoor Cabinet-Type Liquid-Cooled Energy-Storage System

SC100A50P-06W



- Cabinet-integrated PCS, battery, air-con and fire-protection
- Three-level BMS & dual-layer aerosol fire-suppression
- Millisecond-level backup switchover, 4-channel MPPT
- EMS management, multi-protocol for low O&M workload

Item	SC100A50P-06W
System Rated Power	50kW
System Rated Capacity	100.35kWh
AC Output Configuration	3/N/PE，400V，50/60Hz
Grid-tied THDi	< 3%
Power Factor	> 0.99 (0.8 leading ~0.8 lagging configurable)
Backup Switching Time	< 10 ms, support grid-tied / off-grid switching
Short-term Overload Capacity	1.6 × rated power for 2 s
Max. PV Input Voltage	1000V
AC Nominal Voltage	400V，3W+N+PE
MPPT Quantity & Voltage Range	4-channel MPPT, 150~850 V
Cell Type	Lithium-Iron-Phosphate（$LiFePO_4$） 3.2V/280Ah
Battery Cluster Nominal Voltage	358.4V
Battery Operating Voltage Range	313.6~408.8V
Cycle Life	≥ 8000 cycles (@25℃ , 0.5C charge-discharge)
Whole-unit IP Rating	IP54
Heat Dissipation Mode	Integrated industrial air-conditioner temperature control
System Operating Ambient Temperature	-20℃ ~ +50℃
Dimension (W×D×H)	1300×1100×2000 mm
Weight	1000 kg
Fire-Protection Configuration	PACK-level + cabin-level dual-layer aerosol fire suppression, smoke-temperature detection plus audio-visual alarm
External Communication Interfaces	LAN、CAN、RS485, compatible with EMS cloud-platform monitoring

Commercial & Industrial (C&I) Energy Storage

232 kWh Outdoor Cabinet-Type Liquid-Cooled Energy-Storage System

HTDESS-100TS(DC100)



- High-efficiency liquid-cooling enhances stability & service life
- Modular design, independent PCS cooling for easy expansion
- EMS interlocked liquid-cooling for real-time status monitoring
- Strong environmental adaptability with linked fire alarm

Item	HTDESS-100TS(DC100)
System Rated Power	100kW
System Rated Capacity	232kWh
Cell Chemistry	Lithium-Iron-Phosphate（$LiFePO_4$）
Battery Nominal Voltage	832V
Battery Operating Voltage Range	728~936V
Max. Charge-Discharge Current	140A
AC Output Configuration	400V，3W+N+PE，50/60Hz
Grid-tied THDi	< 3% (@rated power)
Power Factor	-1 leading ~+1 lagging configurable
Off-grid THDu	< 3% (for linear load)
Isolation Configuration	Built-in isolation transformer
Stand-by Self-consumption Power	< 100 W (excluding transformer)
Whole-unit IP Rating	IP54
Cooling Mode	Independent liquid-cooling for battery; forced air-cooling for power cabinet
Operating Ambient Temperature	-25℃ ~+60℃ (derating above 45℃)
Relative Humidity	0~95% (non-condensing)
Dimension (W×D×H)	1612×1350×2300mm
Weight	Approx. 3025kg
Display & Communication	Touch-screen LCD; BMS:CAN, EMS:Ethernet / RS485
Max. Altitude	3000 m (derating above 2000 m)

Commercial & Industrial (C&I) Energy Storage

Outdoor Cabinet-Type Liquid-Cooled Energy-Storage System

HTDESSA0030B-55/50B-0055/50B-0100/100B-0215



- IP54 rating plus fire-extinguishing for harsh outdoor conditions
- Modular structure supports expansion and multi-unit parallel
- Built-in isolation transformer, grid-tied /off-grid switchable
- Integrated EMS for 24h monitoring and fault protection

Item	HTDESSA0030B-55	HTDESS0050B-0055	HTDESS0050B-0100	HTDESS0100B-0215
Rated AC Power	30kW	50kW	50kW	100kW
System Rated Energy	55.3kWh	55.3kWh	100.4kWh	215.0kWh
AC Nominal Voltage	400V			
AC Voltage Range	320~460V			
Rated Frequency	50/60Hz			
Grid-tied THDi	< 3%			
Power Factor	1 (0.8 leading ~0.8 lagging configurable)			
Overload Capacity	110% continuous operation			
Operation Mode	Support grid-tied / off-grid switching, built-in isolation transformer			
Max. PV Input Voltage	1000V			
MPPT Operating Voltage Range	250~850 V, support buck-boost mode			
Cell Chemistry	Lithium-Iron-Phosphate（$LiFePO_4$）			
Max. Charge-Discharge Rate	1C@25℃	1C@25℃	0.5C@25℃	0.5C@25℃
Battery Cycle Life	≥ 3800 cycles	≥ 3800 cycles	≥ 5000 cycles	≥ 5000 cycles
IP Rating	IP54			
Operating Ambient Temperature	Intelligent temperature-controlled air cooling			
Dimension (W×D×H)	1770×1510×2270mm	1770×1510×2270mm	1770×1510×2270mm	2450×1550×2400mm
Weight	2000kg	2200kg	2400kg	3900kg
Operating Humidity	0~95% RH (non-condensing)			
Fire-Extinguishing System	Aerosol / FK-5-1-12 fire suppression			
EMS Communication	RS485、TCP/IP			

Commercial & Industrial (C&I) Energy Storage

261 kWh Liquid-Cooled Energy-Storage System

HT-125-261-LC



- PACK-cluster-PCS triple-protection, AI thermal-runaway prevention
- Remote O&M & OTA upgrade, full-lifecycle technical service
- AC-DC integration, cluster-level intelligent battery management
- High-density cabinet, supports multi-cabinet parallel expansion

Item	HT-125-261-LC
System Rated AC Power	125kW
System Rated Capacity	261kWh
Cell Chemistry	Lithium-Iron-Phosphate（$LiFePO_4$）
Battery Nominal Voltage	832V
Battery Assembly Configuration	1P52S×5
AC Nominal Grid Voltage	400V
Grid Voltage Tolerance	-15%~+15%
Power Factor	1 leading ~1 lagging configurable
Grid-tied THDi	< 2% (@rated power)
AC Access Configuration	3W+N+PE three-phase four-wire
Rated Charge-Discharge Rate	0.5P
Thermal Management Mode	Intelligent liquid-cooling
Fire-Protection Configuration	PACK-level + cabin-level FK-5-1-12 fire suppression, cabin-level water fire-protection
Battery-compartment IP Rating	IP55
Operating Temperature	Charge:0~55℃ ; Discharge:-20~55℃
Operating Humidity	0~99% RH (non-condensing)
Max. Altitude	4000 m (derating above 2000m)
Dimension (W×D×H)	1000×1350×2350mm
Weight	Approx. 2200 kg
Communication Interfaces	CAN、RS485、Modbus TCP

Commercial & Industrial (C&I) Energy Storage

418 kWh Liquid-Cooled Energy-Storage System

HT-215-418-LC



- PACK-cluster-PCS triple-protection, AI thermal-runaway prevention
- Remote O&M & OTA upgrade, full-lifecycle technical service
- AC-DC integration, cluster-level intelligent battery management
- High-density cabinet, supports multi-cabinet parallel expansion

Item	HT-215-418-LC
System Rated AC Power	215kW
System Rated Capacity	418kWh
Cell Chemistry	Lithium-Iron-Phosphate（$LiFePO_4$）
Battery Nominal Voltage	1331.2V
Battery Assembly Configuration	1P52S×8
AC Nominal Grid Voltage	690V
Grid Voltage Tolerance	-15%~+15%
Power Factor	0.99 (-1 ~1 adjustable)
Grid-tied THDi	< 3% (@rated power)
AC Access Configuration	Three-phase three-wire
Rated Charge-Discharge Rate	0.5P
Thermal Management Mode	Intelligent liquid-cooling
Fire-Protection Configuration	PACK-level + cabin-level FK-5-1-12 fire suppression, cabin-level water fire-protection
Battery-compartment IP Rating	Battery compartment IP55; PACK IP67; Outer shell C4 corrosion-resistant (C5 optional)
Operating Temperature	Charge:0~55℃ ; Discharge:-20~55℃
Operating Humidity	0~99% RH (non-condensing)
Max. Altitude	4000m(derating above 2000m)
Dimension (W×D×H)	1300×1350×2640mm
Weight	Approx. 3200kg
Communication Interfaces	CAN、RS485、Modbus TCP

Generation-&-Grid-Side Energy Storage

Large Liquid-Cooled DC Container

HTDESS 2500/5000-LC、HTDESS 3125/6250-LC



- Multi-layer safety: IP55, C5 anti-corrosion & multi-stage fire-protection
- High-integrated non-walk-in module, fast site commissioning
- 30ms rapid response, ≥ 94% round-trip system efficiency
- Versatile for generation-grid-user side peak-shaving & FM

Item	HTDESS-2500/5000-LC	HTDESS-3125/6250-LC
Cell Chemistry	Lithium-Iron-Phosphate（$LiFePO_4$）	
Series-parallel Configuration	12P416S	8P416S
System Rated Energy	5015kWh	6250kWh
System Nominal Voltage	1331.2V	
Charge-Discharge Rate	0.5P	
Thermal Management Mode	Liquid-cooling, temperature difference between cell modules ≤ 3℃	
Fire-protection Configuration	Optional FK-5-1-12, aerosol, water spray	
Protection Class	IP55	
Anti-corrosion Grade	C5	
Operating Ambient Temperature	-30~50℃ (derating above 45℃)	
Operating Relative Humidity	0~95% RH (non-condensing)	
Noise Level	≤ 85dB	
Operating Altitude	≤ 5000m(derating above 2000m)	
System Response Speed	Rapid response within 30ms	
System Charge-Discharge Efficiency	≥ 94%	
Dimension (W×D×H)	6058×2438×2896mm	
Weight	< 43t	< 45t

Generation-&-Grid-Side Energy Storage

Container-Type Energy-Storage System

ESSC0500B-1000、ESSC1000B-2000



- Separated electric & battery cabin to contain thermal runaway
- Multi-source access for grid, PV, genset and local loads
- Multiple operation modes with real-time online status monitoring
- Pre-integrated container for convenient transport & installation

Item	ESSC0500B-1000	ESSC1000B-2000
System Rated Power	500kW	1000kW
System Rated Capacity	1075.2kWh	2150.4kWh
Cell Chemistry	Lithium-Iron-Phosphate（$LiFePO_4$）3.2V/280Ah	
Battery Nominal Voltage	768V（1P240S）	
Battery Operating Voltage Range	672~850V	
Max. Charge-Discharge Rate	0.5C@25℃	
Cycle Life	6000 cycles	
AC Output Configuration	400V，3W+N+PE，50/60Hz	
Grid-tied THDi	< 3%	
Off-grid THDu	≤ 1% for linear load; ≤ 5% for non-linear load	
Power Factor	1 leading ~1 lagging configurable, 110% long-term overload	
PV Access Parameters	Max PV voltage 1000V; MPPT voltage 250~850V, support buck-boost mode	
Isolation Configuration	Built-in isolation transformer, support grid-tied / off-grid switching	
Protection Class	IP54	
Cooling Mode	Intelligent temperature-controlled air cooling	
Operating Ambient Temperature	0~+45℃ ; Relative Humidity 0~95%RH(non-condensing)	
Fire-protection Configuration	FM-200 / FK-5-1-12 (optional)	
Display & Communication	7-inch local screen + optional 10-inch EMS/BMS screen; EMS:RS485、TCP/IP	
Max. Operating Altitude	5000m(derating above 3000m)	
Dimension (W×D×H)	6058×2438×2896mm	12192×2438×2896mm
Weight	21t	38t

Marine-Vessel Energy Storage

Vessel Battery-Swap Energy-Storage Cabin

HTDESS B 2MWh-LC

- Standard 2MWh liquid-cooled cabin, minute-level fast refueling
- Weather-tight grade with composite multi-level fire-protection
- Supports “battery-bank” ship-power-separated operation
- Multi-cabin parallel, meets power demand of inland river vessels



Item	HTDESS B 2MWh-LC
Cell Chemistry	Lithium-Iron-Phosphate（$LiFePO_4$）
Assembly Configuration	1P240S×8
Nominal Voltage	768V
Rated Energy	1929.2kWh
Charge-Discharge Rate	0.5P
Thermal Management Mode	Intelligent liquid-cooling
Fire-protection Configuration	PACK-level + cabin-level FK-5-1-12 and cabin-level water fire-protection
Protection Grade	Weather-tight
Operating Temperature	Discharge-20~55℃ ; Charge 0~55℃
Operating Humidity	0~99% RH (non-condensing)
Dimension (W×D×H)	6058×2438×2896mm
Weight	Approx. 28t
Communication Interfaces	CAN、RS485、Modbus