

Smart Storage Safe Power Sustainable Future

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Wenergy Storage |

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All product data provided here is for reference only. Please refer to the product datasheet for the actual specifications.



Integrated Energy Storage Solutions for a Smarter Energy Future

Utility-Scale · C&I · Mobile Energy Storage

Wincle Energy Pte. Ltd.

About Wenergy

1 Headquarter in Singapore

5 Global Branches

15 Years Battery Cell Manufacturing

15GWh Annual Capacity

660,000+m² R&D and Production Base

60+ Countries / Regions Exported to

1000+ Installed C&I ESS Projects

Full-Chain R&D and Manufacturing Capabilities

From Cathode Materials and Battery Cells to Modules, Battery Packs, and Smart Energy Storage Solutions

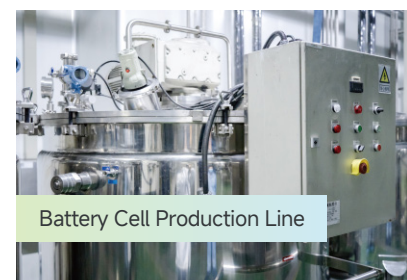
R&D and Manufacturing Bases



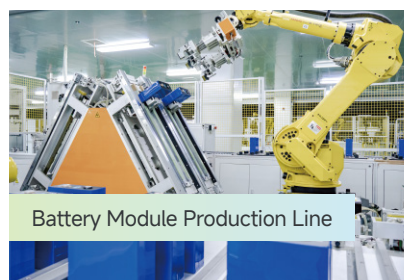
Aerial View



Integration Workshop



Battery Cell Production Line



Battery Module Production Line



Battery Pack Assembly



BESS Integration & Commissioning

Global Presence



Always-On Service Support

24/7 Response for Critical Service Needs

Local O&M Capability

Professional Support Worldwide

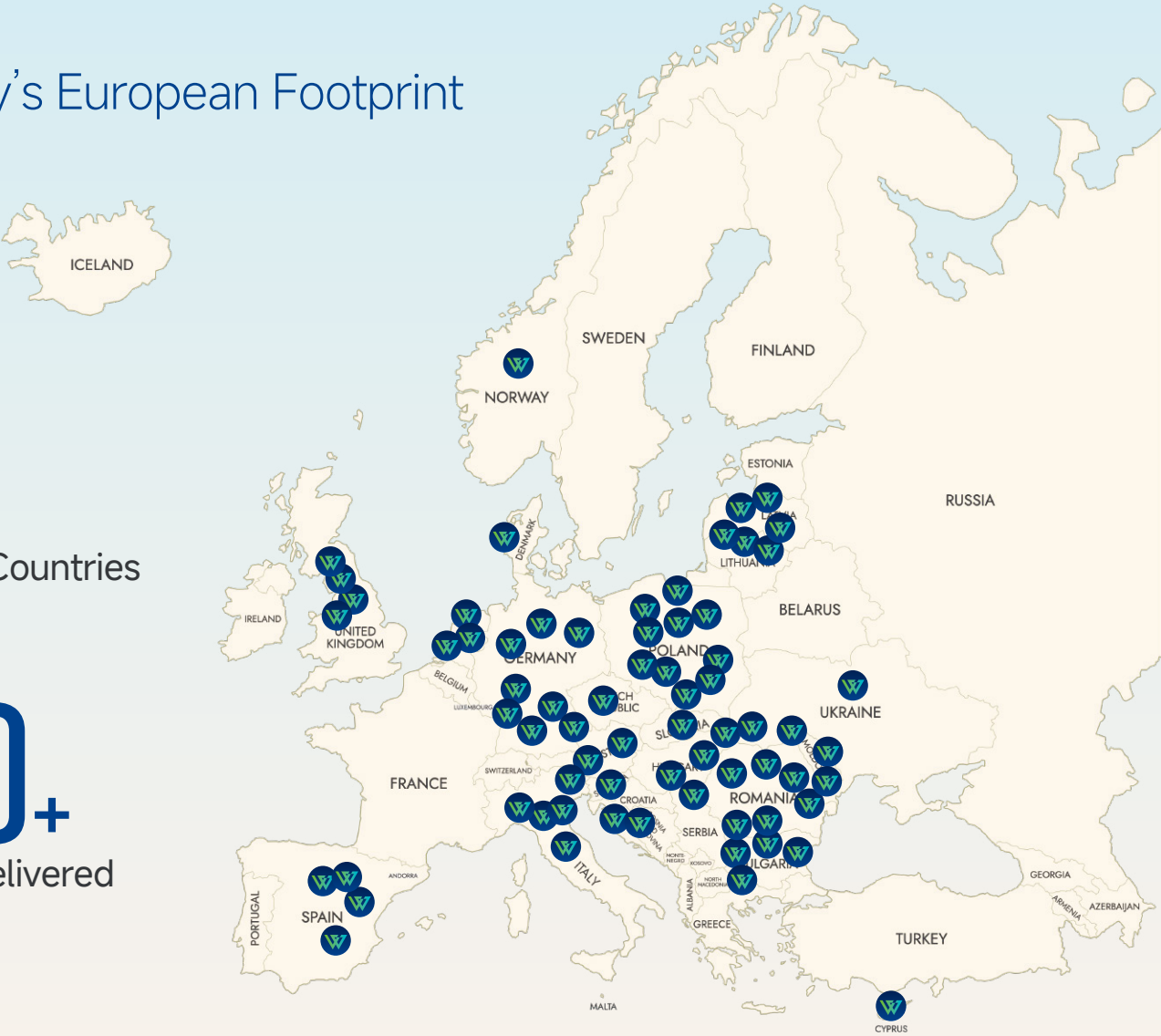
Full-Lifecycle Technical Care

Commissioning, Training, Maintenance & Spare Parts

Wenergy's European Footprint

20+ European Countries Reached

800+ Projects Delivered



Global Compliance Global Safety, EMC & Grid Compliance for C&I Energy Storage Solutions

Transport Compliance

UN38.3

North American Safety, Fire & EMC Compliance

UL 1973, UL 9540, UL 9540A

FCC Part 15B

NFPA 69

International & EU Compliance

REACH

IEC 62619, IEC 63056, IEC 60730, IEC 61000, IEC 62477, IEC 62933, IEC 60529

ISO 13849

Grid-connected Certification

VDE-AR-N 4105, VDE-AR-N 4110, VDE-AR-N 4120

EREC G99

CEI 0-16, CEI 0-21

EN 50549-1, EN 50549-10

UNE 217001, UNE 217002

TOR Erzeuger Polish Grid Code A3 NTS 631

Wenergy Solutions

- ◆ Peak Shaving & Grid Capacity Optimization
- ◆ Solar Self-Consumption & PV + BESS + EV Charging
- ◆ Frequency Response & Grid Services
- ◆ Microgrids, Off-Grid Systems & Backup Power

◆ Software-Defined Energy Management

- Enables integration with customer-owned EMS systems.
- Real-Time Price Capture & Automated Trading (Local Market Tuned)

Cloud-based BMS Optimization

- Dual-processor architecture
- 4KHz real-time monitoring
- Cloud-based balancing optimization
- 90% diagnostic coverage

Multi-protocol Compatible EMS

- AI-powered energy forecasting
- Open EMS API integration
- 100+ protocol support
- Millisecond-level response

Unified Control Platform

- Remote monitoring & diagnostics
- Cross-platform mobile access
- Health & performance analytics



Application Cases

CEEC-CGGC Group Project Cluster

Total Scale: >120MWh, Deployed across multiple cement plants

- CGGC-Laohekou Cement ESS Project
10.2MW / 20.64MWh
- CGGC-Jiayu Cement ESS Project
10.2MW / 20.64MWh
- CGGC-Yicheng Cement ESS Project
13.6MW / 27.52MWh
- CGGC-Zhongxiang Cement ESS Project
6.9MW / 13.76MWh
- CGGC-Gezhouba Special Cement ESS Project
5.725MW / 11.44MWh



Integrated Energy Management for a Cement Plant (Shimen)
BESS + Power Retail & Market Trading + VPP

Project Requirement
80~100GWh annual electricity demand, continuous-process production, and stringent power reliability requirements.

Scale
160GWh Contracted Electricity Volume
5.725MW / 11.44MWh BESS

Solar + BESS Applications



USA | North America
Capacity: 1.5MW / 6.95MWh



Netherlands | Europe
Total Capacity: 51.09MWh



Bulgaria | Europe
Capacity: 1.725MW / 3.85MWh



Moldova | Europe
Capacity: 1.75MW / 3.612MWh



Germany | Europe
Capacity: 0.625MW / 1.445MWh



Lebanon | Asia
Capacity: 1MW / 2.312MWh



Bulgaria | Europe
Capacity: 1MW / 2.312MWh



Bulgaria | Europe
Capacity: 0.875MW / 1.8MWh

Peak Shaving & Energy Cost Optimization



Bulgaria | Europe
Capacity: 3.25MW / 7.514MWh



Eastern Europe
Capacity: 2.5MW / 5.16MWh



Italy | Europe
Capacity: 300kW / 645kWh

Grid-Side Energy Storage



Eastern Europe
Capacity: 5MW / 20MWh



Latvia | Europe
Capacity: 3MW / 6.17MWh



Norway | Europe
Capacity: 0.75MW / 1.548MWh

Microgrids, Off-Grid & Backup Power



Zimbabwe | Africa
Capacity: 12MW / 24MWh



Zambia | Africa
Capacity: 3.45MW / 7.7MWh

Wenergy Products

Turtle CL2.5 Series AC/DC Integrated Containerized BESS

1MW / 1.67MWh

1MW / 2.089MWh

1MW / 2.5MWh



Typical Applications

C&I Energy Storage | PV + Storage Systems | Microgrid & Backup Power | Hybrid Energy Systems

Certifications & Safety Compliance

IEC 62619:2022 | IEC 62040-1/A1:2021 or IEC 62477-1 | IEC 63056:2020

Key Advantages

AC/DC Integrated Architecture

- Integrated battery system, PCS, liquid cooling and power distribution
- Optional AC-side equipment based on project requirements
- Reduced onsite installation and commissioning work

Safe & Stable Operation

- Multi-layer electrical, thermal and fire safety protection
- Intelligent liquid cooling for better temperature consistency
- Fire detection, explosion ventilation and fire suppression design

Flexible System Configuration

- Supports grid-tied, off-grid and on/off-grid switching applications
- Optional STS, ATS, transformer, PV and diesel generator interfaces
- Adaptable to C&I, microgrid and backup power projects

High Energy Density

- Powered by 314Ah LFP battery cells
- Up to 2.5MWh in a standard 20-ft container
- High efficiency, long cycle life and compact footprint

Turtle CL2.5 Series On/Off-Grid Switching Version

Designed for applications requiring high power reliability, this version supports seamless coordination between the utility grid, BESS, PV and diesel generator. It is ideal for critical loads, industrial parks, weak-grid areas and hybrid microgrids.

◆ Key Highlights

• **Seamless power switching**

Integrated STS + ATS enables fast switching between grid, storage, PV and diesel generator.

• **Multi-energy integration**

Supports utility, PV, BESS and diesel generator access for hybrid energy systems.

• **Strong load adaptability**

Supports overload, surge loads and three-phase unbalanced loads.

• **Reliable backup power**

Maintains stable power supply when the grid is unstable or unavailable.

• **Enhanced power quality**

Isolation transformer helps reduce harmonics and stabilize output voltage.

1MW / 1.67MWh

1MW / 2.089MWh

1MW / 2.5MWh

◆ Product Parameters

	Model	Turtle CL2.5	Turtle CL2.089	Turtle CL1.67
DC Side Parameters	Battery Type	LFP 314Ah	LFP 314Ah	LFP 314Ah
	Configuration	2.507MWh/6P416S	2.089MWh/5P416S	1.67MWh/4P416S
	DC Voltage Range	1164.8V ~ 1497.6V	1164.8V ~ 1497.6V	1164.8V ~ 1497.6V
PCS Parameters	Quantity	6	5	4
	Power	1500kW	1250kW	1000kW
STS Parameters	Power	1000kW		
ATS Parameters (Optional)	Power	1000kW		
Grid / Diesel Generator Port (Optional)	AC Rated Input Power	1000kW		
	Rated Voltage	400V, 50/60Hz		
Transformer	Power & Voltage	1250kVA / 800~400VAC		
PV Port (Optional)	AC Rated Input Power	1000kW		
	Rated Voltage	400V, 50/60Hz		
Load Port	AC Rated Output Power	1000kW		
	Rated Voltage	400V, 50/60Hz		
Basic System Parameters	IP Protection Level	IP54 (Battery Compartment)		
	Corrosion-proof Grade	C4H		
	Cooling Type	Intelligent Liquid Cooling (Automatic Refilling Function)		
	Operation Temp. Range	-25°C~55°C		
	Working Altitude	≤2000m (>2000m Derating)		
	Communication Interface	CAN, RS485, Ethernet		
	Dimension(W*D*H)	6058*2438*2896mm		
	Fire Safety Configuration	Aerosol Fire Protection, Smoke/Temperature Detection, Explosion-proof Ventilation		
	Weight	30t	27.5t	25t

Turtle CL2.5 Series Off-Grid Version

Designed for standalone power supply in remote or weak-grid areas, this version integrates BESS, PCS, transformer, liquid cooling and optional PV/diesel generator interfaces to build a stable off-grid power system.

◆ Key Highlights

• **Standalone power supply**

Delivers stable AC power in off-grid or weak-grid environments.

• **Lower diesel dependency**

Helps reduce generator runtime, fuel consumption and operating costs.

• **Outdoor-ready design**

IP54 protection, C4H anti-corrosion rating and -25°C to 55°C operating range.

• **PV and diesel generator ready**

Supports PV access and diesel generator connection for hybrid microgrid applications.

• **Stable voltage and frequency**

Provides reliable power output for off-grid loads.

1MW / 1.67MWh

1MW / 2.089MWh

1MW / 2.5MWh

◆ Product Parameters

	Model	Turtle CL2.5	Turtle CL2.089	Turtle CL1.67
DC Side Parameters	Battery Type	LFP 314Ah	LFP 314Ah	LFP 314Ah
	Configuration	2.507MWh/6P416S	2.089MWh/5P416S	1.67MWh/4P416S
	DC Voltage Range	1164.8V ~ 1497.6V	1164.8V ~ 1497.6V	1164.8V ~ 1497.6V
PCS Parameters	Quantity	6	5	4
	Power	1500kW	1250kW	1000kW
Diesel Generator Port (Optional)	AC Rated Input Power	1000kW		
	Rated Voltage	400V, 50/60Hz		
Transformer	Power & Voltage	1250kVA / 800~400VAC		
PV Port (Optional)	AC Rated Input Power	1000kW		
	Rated Voltage	400V, 50/60Hz		
Load Port	AC Rated Output Power	1000kW		
	Rated Voltage	400V, 50/60Hz		
Basic System Parameters	IP Protection Level	IP54 (Battery Compartment)		
	Corrosion-proof Grade	C4H		
	Cooling Type	Intelligent Liquid Cooling (Automatic Refilling Function)		
	Operation Temp. Range	-25°C~55°C		
	Working Altitude	≤2000m (>2000m Derating)		
	Communication Interface	CAN, RS485, Ethernet		
	Dimension(W*D*H)	6058*2438*2896mm		
	Fire Safety Configuration	Aerosol Fire Protection, Smoke/Temperature Detection, Explosion-proof Ventilation		
	Weight	30t	27.5t	25t

Turtle CL2.5 Series Grid-Tied Version

Designed for C&I grid-connected energy storage and PV-plus-storage projects, this version supports multiple AC voltage platforms and is suitable for peak shaving, demand management, PV self-consumption and grid support.

750kW/1000kW/2.5MWh
625kW/1000kW/2.089MWh
500kW/860kW/1000kW/1.67MWh

◆ Key Highlights

- **Multi-voltage compatibility**
Supports **400V / 690V / 800V** grid connection.
 - **Weak-grid adaptability**
Supports stable operation under weak-grid conditions.
 - **Streamlined configuration**
Simplified AC-side design for standard C&I grid-tied projects.
- **PV-plus-storage ready**
Improves PV self-consumption and project returns.
 - **SVG function**
Provides reactive power support and improves power quality.

◆ Product Parameters

	Model	Turtle CL2.5	Turtle CL2.089	Turtle CL1.67
DC Side Parameters	Battery Type	LFP 314Ah	LFP 314Ah	LFP 314Ah
	Configuration	2.507MWh/6P416S	2.089MWh/5P416S	1.67MWh/4P416S
	DC Voltage Range	1164.8V ~ 1497.6V	1164.8V ~ 1497.6V	1164.8V ~ 1497.6V
PCS Parameters	Quantity	6	5	4
	Voltage	400/690/800V	400/690/800V	400/690/800V
	Power	750/1290/1500kW	625/1075/1250kW	500/860/1000kW
Grid Port	AC Rated Input Power	1000kW		
	Rated Voltage	400V/690V/800V, 50/60Hz		
PV Port	AC Rated Input Power	1000kW		
	Rated Voltage	Determined by PCS Voltage		
Load Port	AC Rated Output Power	750/1000kW	625/1000kW	500/860/1000kW
	Rated Voltage	Determined by PCS Voltage		
Basic System Parameters	IP Protection Level	IP54 (Battery Compartment)		
	Corrosion-proof Grade	C4H		
	Cooling Type	Intelligent Liquid Cooling (Automatic Refilling Function)		
	Operation Temp. Range	-25°C~55°C		
	Working Altitude	≤2000m (>2000m Derating)		
	Communication Interface	CAN, RS485, Ethernet		
	Dimention(W*D*H)	6058*2438*2896mm		
	Fire Safety Configuration	Aerosol Fire Protection, Smoke/Temperature Detection, Explosion-proof Ventilation		
	Weight	26.5t	24t	21.5t

Turtle CL2.17 Container ESS 1.125MW / 2.17MWh

The **Turtle CL2.17** is a grid-tied all-in-one containerized energy storage system with **2.17MWh capacity, 1125kW rated power** and a **400V AC interface**.

It is suitable for C&I energy storage, PV-plus-storage, peak shaving, load shifting and energy cost optimization.

◆ Key Highlights

- **Highly integrated design**
Integrated PCS reduces onsite installation and wiring work.
 - **Compact 2.17MWh solution**
Suitable for projects with space or budget constraints.
 - **Safe and reliable**
Liquid cooling, fire protection and electrical safety design for stable operation.
- **400V grid-friendly interface**
Easy connection to common C&I low-voltage distribution systems.
 - **Modular PCS architecture**
Supports flexible operation and easier maintenance.

◆ Product Parameters

	Model	Turtle CL2.17
DC Side Parameters	Battery Type	LFP 314Ah
	Configuration	2.17MWh/9P240S
	DC Voltage Range	672V ~ 864V
PCS Parameters	Quantity	9
	Power	1125kW
Grid Port	AC Rated Input Power	1125kW
	Rated Voltage	400V, 50/60Hz
Load Port	AC Rated Output Power	1125kW
	Rated Voltage	400V, 50/60Hz
Basic System Parameters	IP Protection Level	IP54 (Battery Compartment)
	Corrosion-proof Grade	C4H
	Cooling Type	Intelligent Liquid Cooling (Automatic Refilling Function)
	Operation Temp. Range	-25°C~55°C
	Working Altitude	≤2000m (>2000m Derating)
	Communication Interface	CAN, RS485, Ethernet
	Dimention(W*D*H)	6058*2438*2591mm
	Fire Safety Configuration	Aerosol Fire Protection, Smoke/Temperature Detection, Explosion-proof Ventilation

Turtle Series Container ESS

1.925MW/3.85MWh 2.5MW/5MWh 3.125MW/6.25MWh

◆ Applications

- Utility-Scale Renewable Integration
- Industrial & Commercial ESS
- Remote/Off-Grid Power
- Emergency Energy Storage



◆ Key Highlights

- **Reduced Cost**
 - One-stop system, easy install & low maintenance
 - Large module design, 50% more efficient
- **Safety**
 - Balanced batteries for longer life
 - Dual fire suppression for extreme safety

- **High Efficiency**
 - 1500V platform, 89% RTE efficiency
 - C4H anti-corrosion, 15+ years lifespan
- **Smart**
 - Fast fault detection & localization
 - Cloud monitoring, 24/7 unattended

◆ Products Parameters

Model	Turtle CL3.85	Turtle CL5	Turtle CL6.25
Battery Type	LFP 314Ah	LFP 314Ah	LFP 587Ah
Rated Energy	3.85 MWh	5.016 MWh	6.25 MWh
DC Rated Power	1925 kW	2500 kW	3125 kW
DC Rated Voltage	1228.8V	1331.2V	1331.2V
DC Voltage Range	1075.2V ~ 1382.4V	1164.8V ~ 1497.6V	1164.8V ~ 1497.6V
DC Efficiency	94%		
IP Protection Level	IP55		
Anti-corrosion Level	C4H		
Weight	≈36t	≈43t	≈52t
Cooling Type	Liquid Cooling		
Noise	<75 dB (1m Away from the System)		
Communication Interface	Wired: LAN, CAN, RS485		
Communication Protocol	Modbus TCP/CAN2.0		
System Certification	IEC 60529, IEC 60730, IEC 62619, IEC 62933, IEC 62477, IEC 63056, IEC/EN 61000, UL 1973, UL 9540A, UL 9540, CE Marking, UN 38.3, TÜV Certification, DNV Certification, NFPA69, FCC Part 15B.		

Stars CL261 Series Cabinet ESS

Small Size, Big Power, Multiple-use

125kW / 261kWh LFP | IP55 | Plug & Play | Multi Layer Safety

Stars CL261 C&I ESS Cabinet

Standard and Low-Noise versions for diverse site requirements.

- ◆ Low-Noise version: ≤60 dB by day, as low as 45 dB at night
- ◆ Smart liquid cooling with automatic coolant replenishment cuts O&M costs by 40%
- ◆ AC/DC dual auxiliary power improves system stability by 30%



Stars CL261Pro PV – Storage – Diesel Integrated ESS Cabinet

Highly integrated, safe, and flexible energy storage for diverse applications.

- ◆ Plug-and-play modular design with parallel expansion
- ◆ Intelligent iBMS with SOC/SOP calibration
- ◆ IP55, C4H protection, and multi-layer battery safety
- ◆ 100% unbalanced load support with seamless grid/off-grid switching
- ◆ Up to 10 PV inputs, diesel integration, and multiple operating modes



Stars CL261STS On/Off-Grid ESS Cabinet

High reliability for critical loads. Dual-port tiered power supply.

- ◆ Integrated STS – 10ms seamless transfer
- ◆ Multi-level active/passive safety + smart O&M
- ◆ Modular, pre-wired installation



Stars CL261 Series Cabinet ESS

Small Size, Big Power, Multiple-use

125kW / 261kWh LFP | IP55 | Plug & Play | Multi Layer Safety

◆ Product Parameters

Model	Stars CL261	Stars CL261Pro	Stars CL261STS
Battery Type	LFP 3.2V / 314Ah		
Rated Energy	261.2kWh		
Battery Configuration	1P260S		
DC Voltage Range	728~936V		
Load Power	125kW		
Grid Power	/	187kW	250kW
DG Power	/	187kW	/
PV Input	/	250kW (DC), 10MPPTs (20S) MC4, 150~950V	/
On/Off-Grid Switch Time	/	10ms	
IP Level	IP55 (Complete System)		
Corrosion-Proof Grade	C4H		
Cooling Type	Intelligent Liquid Cooling (with Automatic Refilling)		
Operating Temp. Range	-35°C ~ 55°C (>45°C Derating)		
Operating Altitude	≤2000m (> 2000m Derating)		
Relative Humidity	0~95% (Non-condensing)		
Noise	≤70dB, ≤60dB (Silent Version)	≤75dB	
Communication Interface	LAN / RS485		
Communication Protocol	Modbus, IEC104, MQTT		
Operating Modes	On-Grid, Off-Grid	On-Grid, Off-Grid, On/Off-Grid Switching	
Dimensions (W*D*H)	1012*1350*2270mm (±10mm)	1520*1350*2270mm	
Weight	≤2.5t	≤2.7t	≤2.9t
Fire Protection System	Pack-level Aerosol + Cluster-level Aerosol + Water Fire Suppression (Optional) + Explosion Venting (Optional) + Active Early Warning		
Cycle Life	≥8000 (EoL 70% SOH)		
Certifications	IEC/EN 62619, IEC 62477, IEC 60529, IEC 61000-6-2, IEC 61000-6-4, UN38.3		
Installation	Floor-Mounted		

Stars Series Cabinet ESS

125kW / 258kWh

125kW / 289kWh

385kWh

• Distinctive Rounded Design

A modern, customer-favored design with a distinctive rounded profile.

• High Integration

Battery system, iBMS and liquid cooling integrated into one cabinet.

• Safe and Reliable

SOC correction and multi-layer protection enhance lifecycle battery safety.

• Efficient and Flexible

High energy density reduces footprint, simplifies layout and supports flexible deployment.

• Smart O&M

Cloud monitoring, remote alerts and modular maintenance simplify operation and service.



◆ Product Parameters

Model	Stars CL258Pro	Stars CL289Pro	Stars CL385Pro
Rated Energy	258kWh	289kWh	385kWh
DC Voltage Range	720~1000V	720~1000V	960~1401.6V
Rated Power	125kW	125kW	/
AC Rated Voltage	400V	400V	/
Rated Frequency	50/60Hz	50/60Hz	/
IP Protection Level	IP55		
Anti-corrosion Level	C4H		
Cooling Method	Liquid Cooling		
Noise	<75dB (1m Away from the System)		
Dimention(W*D*H)	(1588±10)*(1380±10)*(2450±10)mm		1578mm*1380*2500mm
Communication Interface	RS485/CAN		
Communication Protocol	Modbus TCP/CAN2.0		
System Certification	IEC 62619, IEC 60730-1, IEC 63056, IEC/EN 61000, IEC/EN 62311, IEC 60529, IEC 62040 or 62477,EN 301 489, EN 301 908, ISO 13849, RF/EMC, UKCA (IEC 62477-1), UKCA (CE-EMC Transfer), UL1973 ^[1] , UL9540A ^[1] , UN 38.3		

[1]. UL1973 and UL9540A are for Stars CL385Pro only.

Stars CA100 Series Air-cooled Hybrid Cabinet

◆ Key Highlights

• **Economical and Efficient**

RTE up to 90%,
DOD up to 100%.

• **Compact & Convenient**

0.96m² footprint, easy to transport and install.

• **Expandable & Modular**

Easy modular design supports parallel connection for convenient system expansion.

• **Versatile**

Support multiple brands of hybrid inverter, with higher selectivity.

• **Safe & Reliable**

IP55, optimized ventilation design, temperature difference within 6°C.

• **PV pluggable**

Support PV connection, with higher integration.

• **Self-developed**

LFP314Ah battery cell system integration, leading cost advantage, 3S fusion.

• **Easy O&M**

Support multiple ways of operation and maintenance, including onsite, cloud.

50kW / 100kWh

60kW / 120kWh



◆ Product Parameters

	Model	Stars CA100	Stars CA120
Battery Cabinet	Cell Type	LFP / 314Ah	LFP / 314Ah
	Pack Configuration	20.096 kWh / 1P20S	20.096 kWh / 1P20S
	System Configuration	100.48 kWh / 1P100S	120.576 kWh / 1P120S
	Rated DC Voltage	320 V	384 V
	DC Voltage Range	280 ~ 360 V	336 ~ 432 V
	Max. Charge/Discharge Rate	0.5 P	0.5 P
	Max. Depth of Discharge	100% (25±2°C)	100% (25±2°C)
	Cycle Life	≥ 8,000 cycles	≥ 8,000 cycles
PV Input	Max. input Power	59.8kW 60kW 80kW 98kW 100kW	59.8kW 60kW 80kW 98kW 100kW 100kW
	PV Voltage Range	150 ~ 850V	150 ~ 850V
	MPPT	3 4	3 4
	Max. input Current	40A*3 40A*4	40A*3 40A*4
AC Side	Rated Output Power	29.9kW 30kW 40kW 49kW 50kW	29.9kW 30kW 40kW 49kW 50kW 60kW
	Rated AC Voltage	400V	400V
	AC Voltage Range	±15%	±15%
	Grid Type	3W+N+PE	3W+N+PE
	Rated Frequency	50Hz/60Hz	50Hz/60Hz
	Power Factor	0.99/ -0.8 ~ +0.8	0.99/ -0.8 ~ +0.8
	THDi	≤3%	≤3%
	DC Ratio	< 0.5% Ipn	< 0.5% Ipn
General	Max. Round Trip Efficiency	90%	
	Communication	Modbus TCP/IP	
	Fire Suppression System	Aerosol	
	Ingress Rating	IP55	
	Cooling	Air Cooling	
	Operating Temperature	-25°C~55°C (Derating after 45°C)	
	Anticorrosion Rating	C4 (C5 optional)	
	Humidity	0~95% RH (non-condensing)	
	Altitude	3000m (Derating above 2000m)	
	Dimensions (W*D*H)	800*1,200*2,100 mm (Foundation) / 1,536*1,377*2,100mm (Entire)	
	Weight	1200 kg	
	Safety/EMC	UN38.3, IEC62619, IEC63056, IEC62477-1, IEC61000-6-2/4	
	Grid Code	EN50549-1/-10, EN50549-2/-10, G99, VDE4105, NRS097, C10/11	

Stars CL418 Series Cabinet ESS

100kW / 418kWh

210kW / 418kWh

◆ Key Highlights

• **Compact**

2m² footprint only,
easy transportation & fast installation.

• **Efficient Cooling**

Optimized in-PACK duct design ensures high-efficiency cooling with reduced energy consumption.

• **Long Cycle Life**

Over 8,000 cycles, providing excellent long-term battery performance.

• **High Integration**

418kWh energy in one cabinet with remarkable endurance.

• **Flexible Expansion**

Modular design,
simplified parallel expansion.

• **Ultimate Safety**

In-PACK fire warning and protection with aerosol, prevent heat diffusion and runaway.



◆ Product Parameters

	Model	Stars CL418-A400	Stars CL418-A690	Stars CL418-A800
DC Side	Cell Type	LFP / 314Ah		
	Pack Configuration	52.248kWh / 1P52S		
	System Configuration	418kWh / 1P416S		
	Rated DC Voltage	1331.2V		
	DC Voltage Range	1164.8 ~ 1497.6V		
	Max. Charge/Discharge Rate	0.25P	0.5P	0.5P
	Max. Depth of Discharge	100% (25 ± 2 °C)		
AC Side	Rated Output Power	100kW	210kW	210kW
	Rated AC Voltage	400V	690V	800V
	AC Voltage Range	-15% ~ +10%		
	Grid Type	3W+PE		
	Rated Frequency	50Hz / 60Hz		
	Power Factor	0.99 / -1 ~ +1		
	THDi	≤3%		
	DC Ratio	< 0.5% Ipn		
General	Max. Round Trip Efficiency	89%		
	Cycle Life	≥8,000 cycles		
	Communication	Modbus TCP/IP		
	Fire Suppression System	Aerosol		
	Ingress Rating	IP55		
	Cooling	Liquid cooling+Forced air cooling		
	Operating Temperature	-25°C~55°C (Derating after 45°C)		
	Anticorrosion Rating	C4 (C5 optional)		
	Humidity	0~95% RH (non-condensing)		
	Noise	≤80dB		
	Altitude	3000m (Derating above 2000m)		
	Dimensions (W*D*H)	1,500*1,350*2,400 mm		
	Weight	3800kg		
	Safety/EMC	UN38.3, IEC62619, IEC63056, IEC62477-1, IEC61000-6-2/4		
	Grid code	EN50549-1/-10, EN50549-2/-10, PN'EN-50549-1/-2		

Turtle M Series

Mobile ESS

500kW / 964kWh

750kW / 1446kWh

1000kW / 1929kWh



964kWh Mobile ESS

Compact. Agile. Ready Anywhere.

◆ Key Highlights

- 314Ah LFP Cells
- Automotive-Grade Liquid Cooling
- Grid-Forming PCS
- Multi-Vehicle Parallel Operation

Best for

EV Charging
Emergency Backup
Temporary Power

1446kWh Mobile ESS

More Capacity. Greater Flexibility.

◆ Key Highlights

- 6*240S Battery Strings
- Pack-Level Active Fire Suppression
- Integrated PCS & DC/DC
- Cloud-Based Fleet Dispatch

Best for

Charging Hubs
Commercial Backup
Mobile Microgrids

1929kWh Mobile ESS

Maximum Energy. Built for Demanding Sites.

◆ Key Highlights

- 8*240S Battery Strings
- Automotive-Grade Liquid Cooling
- Grid-Forming Capability
- Multi-Unit Parallel Operation

Best for

High-Capacity EV Charging
Grid Support
Large-Site Power

Turtle M Series

Mobile ESS

500kW / 964kWh

750kW / 1446kWh

1000kW / 1929kWh

◆ Product Parameters

Performance Parameter	964 kWh	1446 kWh	1929 kWh
Product Name	768V / 964kWh Mobile Energy Storage Vehicle	768V / 1446kWh Mobile Energy Storage Vehicle	768V / 1929kWh Mobile Energy Storage Vehicle
Rated Voltage	768V		
Operating Voltage Range	672~864V		
Nominal Capacity	1256Ah	1884Ah	2512Ah
Nominal Energy	964.608kWh	1446.912kWh	1929.216kWh
Battery Chemistry	LiFePO ₄ (LFP)		
Discharge Output Interfaces	Battery DC; AC 400V; DC Fast-charging Output		
Charging Input Interfaces	4*250A DC Fast-charging Inlets; max. 120kW per Connector; AC 400V	4*250A DC Fast-charging Inlets; max. 160kW per Connector; AC 400V	4*250A DC Fast-charging Inlets; AC 400V
AC Discharge Power	500kW	750kW	1000kW
Isolation Transformer (Optional)	500kVA	800kVA	-
DC Fast-Charging Output	4*120kW Charging Connectors	4*160kW Charging Connectors	4*240kW Charging Connectors
Corrosion Protection Class	C4		
Overall Dimensions (L*W*H)	6058*2438*2591mm		
Energy Storage Ingress Rating	IP54		
Operating Temperature Range	-30°C ~ +55°C		
Relative Humidity	5% ~ 90%RH		
Maximum Operating Altitude	4000m (Derating above 2000m)		
Applications	EV charging; Construction-site Power; Optional Isolation Transformer Supports 100% Three-phase Load Imbalance and Sensitive Equipment		EV charging; Construction-site Power; Balanced Three-phase Load Distribution Required without an Isolation Transformer

Lifecycle Service & Support



Pre-Sales Support

Project assessment aligned with local grid requirements
Tailored system design to reduce approval and cost risks



Engineering Expertise

Comprehensive technical support and documentation
Flexible training for faster project deployment
Optimized system design for stable long-term operation



Project Delivery & Commissioning

Local engineering teams ensuring smooth installation
On-site commissioning and grid compliance support
Reduced project delays and faster grid connection



Service & O&M Support

24/7 remote and on-site support worldwide
Fast response to minimize downtime and operational risks
Local spare parts and long-term system reliability



From grid compliance to long-term operation, Wenergy helps reduce project risks and ensures reliable performance across global markets.

Wenergy Partners

PCS Partners



In Process:



European EMS Partners

