SUNPAL BESS
Turnkey Solution

Brochure of C & I BESS

Sunpal

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COMPANY INTRODUCTION

Sunpal was founded in 2008 as a dedicated battery energy storage system (BESS) provider by consolidating their expertise in electrochemistry, power electronics and system integration to deliver reliable energy storage solutions globally.

We are humbled to contribute our know-how to our technologies and create a sustainable future for all. Sunpal always is here to take responsibility and always take the mission to liberate human energy sustainably.

We have always adhered to the development concept of "Smart energy powers your life", constantly pursued excellence through technological innovation, and is committed to becoming a global new energy industry leader.

Sunpal Power strives to provide leading solar energy solutions by o□ering install-ready BESS System packages that can drop shipped throughout the world.

16+
Years Delivery Experience.

120+
Partners In ESS Field

500,000+
Global Residential ESS.

80,000m²
Factory Area.

2008

CORPORATE CULTURE

About Sunpal

Our Mission

We are committed to responsible solar system solutions for a better future and adhere to the highest ethical standards in our operations and supply chain. We value responsible sourcing, e□cient manufacturing and end-of-life recycling to minimize our environmental footprint.

Our Vision

We support our global customers with highly e□cient solar products, individual advice on system design and financing options. By investing in the continuous improvement of our employees, we foster a culture of innovation and excellence to create a sustainable future for all.

Our Core Values

Customer-Centric
Respond to our customers beyond expectations and promote customer satisfaction; provide customers with exceptional, e□cient and reliable services; build trust and act responsibly towards customers.

People-Oriented
Cultivate a vibrant and collaborative work environment; empower our employees to take ownership; foster a culture of innovation that fuels our collective growth and shared success with our customers.

Pragmatism
Encourage our employees to explore new ideas with practical solutions; keep a long-term vision for the decision-making process; be flexible to adjust our course based on the evolving customer needs and data-driven insights.

TECHNICAL CERTIFICATE

We o□er multiple certifications for all components in our product line that follow local standards and codes required for your specific regions or markets. This ensures safe installations and promotes optimal photovoltaic practices.

MSDS

OUR PARTNERS

Global Brand Partner
EVE

Global Brand Partner
KSTAR

Global Brand Partner
MEGAREVO

Global Brand Partner
Deye

Global Brand Partner
Sinexcel

Global Brand Partner
HiTHIUM

Global Brand Partner
Ganfeng Lithium

Global Brand Partner
HUAWEI

Global Brand Partner
BYD

Global Brand Partner
HiGEE

Global Brand Partner
GOTION HIGH-TECH

Global Brand Partner
CALB

Global Brand Partner
SUNWODA

Global Brand Partner
REPT

Global Brand Partner
EVE

Global Brand Partner
CATL

ADVANTAGES

Fast Deployment

- One - stop service with streamlined coordination
- Pre - installed components for rapid setup
- Factory pre - commissioning halves debugging time

Advanced Safety

- Multi-level monitoring ensures system reliability
- Fire-resistant compartments prevent thermal runaway
- Integrated detection and suppression for rapid risk control

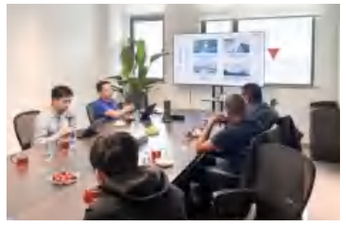
Cost Efficiency

- Intelligent clusters maximize output and e□ciency
- Liquid cooling ensures ≤3°C temperature uniformity
- Smart controls lower energy and maintenance costs

System Flexibility

- Modular design enhances uptime and scalability
- IP55 outdoor cabinet and IP66 components handle harsh conditions
- Rapid maintenance with 1 - hour part replacement

One-Stop Solution



1 Project Survey & Research

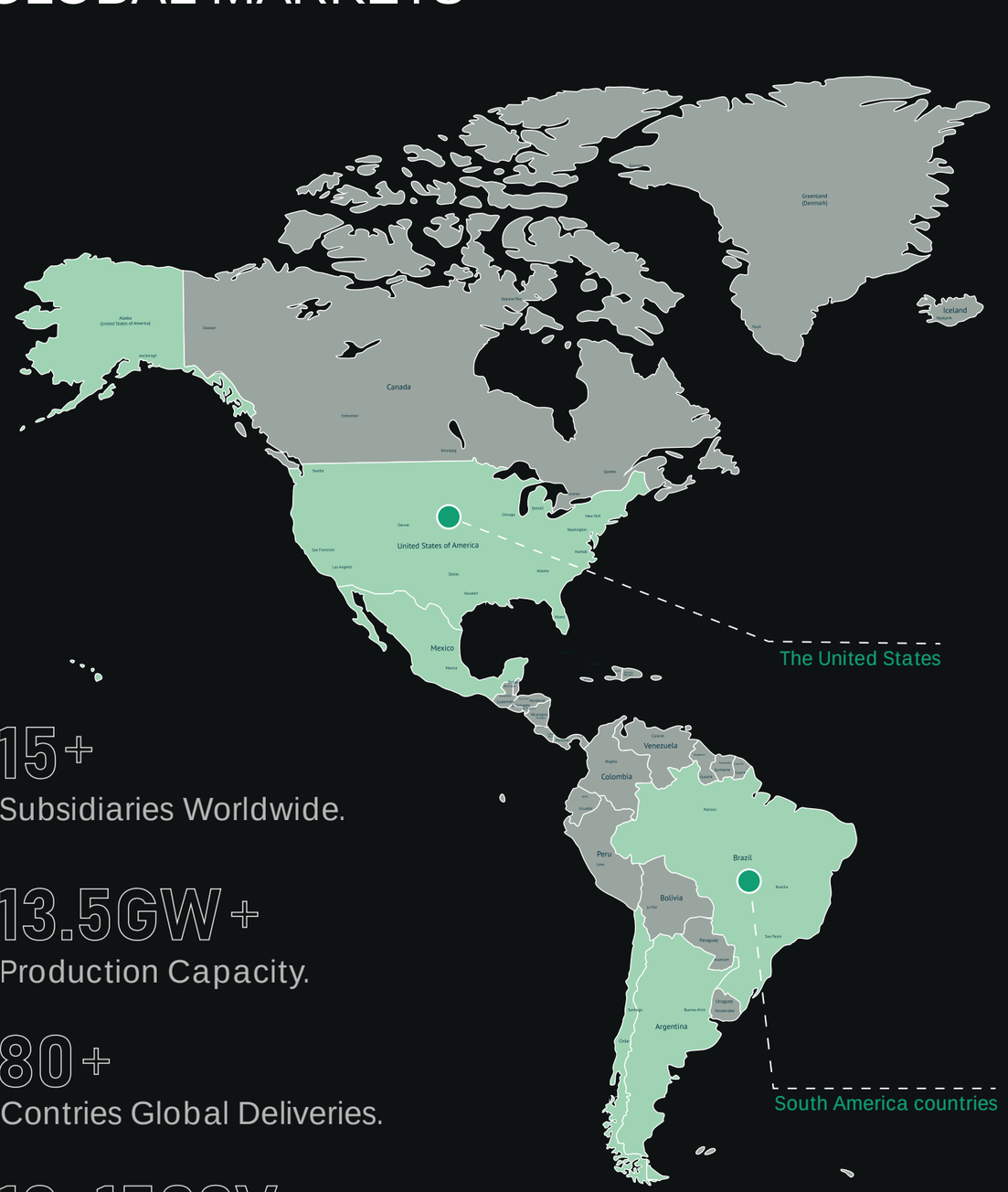
2 Design & Confirm the Configuration

3 Arrange Production & Shipping

5 Enjoy Payback

4 Installation & Debugging

GLOBAL MARKETS



15+
Subsidiaries Worldwide.

13.5GW+
Production Capacity.

80+
Contries Global Deliveries.

12~1500V
Flexible Battery Solution.

Europe
Germany, Czech
Austria, Romania
United Kingdom
France, Spain
Bulgaria, Greece
Ukraine, Sweden

Americas
The United States
Mexico, Brazil
Argentina, Chile

Africa
Morocco, Niger
Nigeria, Chad
Somalia, Tanzania
Zambia, South Africa

Asia
Uzbekistan
Vietnam, Laos
Thailand
Cambodia

Oceania
Australia

SUNPAL FACTORY INTRODUCTION

We adhere to the business philosophy of "everything stems from the customer, everything stems from innovation," and focusing on core technologies and continuously launching "High-quality, High-value, High-return" products under the One Core, One Wing" strategy, creating maximum value for our customers and investors.

The "One Core" refers to our ESS product line, which encompasses ESS systems, residential ESS, mobile power stations. The "One Wing" comprises our pack series products, including OEM services for air cooling & liquid cooling packs for energy storage, standard C/G Power pack solutions for construction machinery, and fast-charging pack solutions.

DUST-FREE PRODUCTION WORKSHOP

SKY ESS MONET SERIES 2.0-ESS

- Monet-50(T)(S)(DC50)(100kWh)
- Monet-100TS(DC100)(215kwh)
- Monet-100TS(DC100)(232kwh)

The Monet series outdoor energy storage cabinet integrates energy storage batteries, modular PCS, energy management monitoring system, power distribution system, environmental control system, and fire control system.

It adopts modular PCS for easy maintenance and expansion. The outdoor cabinet adopts front maintenance to reduce the occupied area and maintenance channel. It has the characteristics of safe and reliable operation, fast deployment, low cost, high energy e□ciency, and intelligent management.

Monet-50TS (DC50)(100kWh)

The system has been commercialized, integrating energy storage batteries, energy storage converters, photovoltaic converters, energy management monitoring systems, power distribution systems, environmental control systems, and fire control systems. It can fully control the operation status and risks of the system.

Model	Monet-50TS(DC50)(100kWh)
Battery rated capacity	100kWh
Battery rated voltage	844.8V
Battery voltage range	739.2V~950.4V
Battery type	Lithium Iron Phosphate battery (LFP)
Battery cell capacity	120Ah
Series of Battery	1P*24S*11S
Maximum charge and discharge current	60A
Photovoltaic rated capacity	50kW
Photovoltaic voltage range	200-550V
Rated AC power	50kW
Rated AC current	72A
Rated AC voltage	400V, 3W+N+PE/3W+PE
Rated AC frequency	50/60Hz
THDI	< 3% (Rated power)
Power Factor	-1Leading to+1 lagging
THDU	< 3% (Linear Load)
Degree of protection	IP54
Isolation mode	Industrial Transformer Isolation
Shutdown self-discharge	< 100W (Without transformer)
Display	LCD
Relative humidity	0 ~ 95% (no condensation)
Noise	< 78dB
Ambient temperature	-25℃ to +60℃(with derating at temperatures above 45℃)
Cooling mode	Intelligent air-cooled
Altitude	3000m (> 3000m reduction)
Communication interface	CAN/Ethernet / 485
Size (W * D * H)	1300*1030*2100mm
Weight (approx.)	2150kg

• Model Description

Monet– 50 T S (DC50) (100kWh)

- Battery rated capacity
- DC rated power
- S stands for STS, and N/A means missing
- With isolation transformer
- AC rated power
- Series name

Monet-100TS (DC100)(215kWh)

Real-time acquisition of local load power, photovoltaic power generation priority is self-generation and self-use, and surplus electricity storage; When the power generated by photovoltaic power generation is insu□cient to provide local load, the battery storage is prioritized.

The protection level is IP54, which can perfectly cope with various types of weather in the outdoor environment.

Model	Monet-100TS (DC100) (215kWh)
Battery rated capacity	215kWh
Battery rated voltage	768V
Battery voltage range	672V~864V
Battery type	Lithium iron phosphate battery (LFP)
Battery cell capacity	280Ah
Series of Battery	1P*20S*12S
Maximum charge and discharge current	140A
Photovoltaic rated capacity	100kW
Photovoltaic voltage range	200~450V
Rated AC power	100kW
Rated AC current	144A
Rated AC voltage	400V, 3W+N+PE/3W+PE
Rated AC frequency	50/60Hz
THDI	< 3% (Rated power)
Power Factor	-1 Leading to+1 lagging
THDU	< 3% (Linear Load)
Degree of protection	IP54
Isolation mode	Industrial Transformer Isolation
Shutdown self-discharge	< 100W (Without transformer)
Display	LCD
Relative humidity	0 ~ 95% (no condensation)
Noise	< 78dB
Ambient temperature	-25℃ to +60℃(with derating at temperatures above 45℃)
Cooling mode	Intelligent air-cooled
Altitude	3000m (> 3000m reduction)
Communication interface	CAN/Ethernet / 485
Size (W * D * H)	1800*1200*2300mm
Weight (approx.)	3100kg

• Model Description

Monet– 100 T S (DC100) (215kWh)

- Battery rated capacity
- DC rated power
- S stands for STS, and N/A means missing
- With isolation transformer
- AC rated power
- Series name

Monet-100TS (DC100)(232kWh)

It adopts door-mounted embedded integrated air conditioning, which does not occupy cabinet space, improves the available space of outdoor cabinets, has better structural integrity at the top, and has good waterproof performance.

The local control screen can achieve diversified functions such as system operation monitoring, energy management strategy development, equipment remote upgrading, etc.

Model	Monet - 100TS (DC100) (232kWh)
Battery rated capacity	232kWh
Battery rated voltage	832V
Battery voltage range	728V~936V
Battery type	Lithium iron phosphate battery (LFP)
Battery cell capacity	280Ah
Series of Battery	1P*52S*5S
Maximum charge and discharge current	140A
Rated AC power	100kW
Rated AC current	180A
Rated AC voltage	400V, 3W+N+PE
Rated AC frequency	50/60Hz
THDI	< 3% (Rated power)
Power Factor	-1 leading to +1 lagging
THDU	< 3% (Linear Load)
Degree of protection	IP54
Protective Class	I
Isolation mode	No - Isolation (Adding isolation transformer is optional)
Shutdown self - discharge	< 0.1% Rated Power (Without transformer)
Display	LCD
Relative humidity	0 ~ 95% (no condensation)
Noise	< 78dB
Ambient temperature	-25℃ to +60℃(with derating at temperatures above 45℃)
Cooling mode	Liquid - cooled
Altitude	3000m (> 2000m reduction)
Communication interface	CAN/Ethernet / 485

• Model Description

Monet– 100 T S (DC100) (232kWh)

- (232kWh): Rated Battery Capacity
- (DC100): DC rated power
- S: A stands for ATS, and N/A means missing
- T: With isolation transformer
- 100: AC rated power
- Monet: Series name

SKY ESS ALICE SERIES 2.0 -CONTAINER

- Alice-500TS(DC500)(1075kWh)
- Alice-1000TS(DC1000)(2150kWh)

The Alice Series integrates energy storage converter, storage battery, isolation transformer, cooling, fire protection, power distribution, dynamic loop monitoring and energy management, friendly grid adaptability, accepting grid scheduling, active and reactive power compensation, supporting peak shaving and valley filling, demand -side response, and assisting in new energy grid -connected applications, etc.

The IP55 protection level adapts to the harsh outdoor environment, which is perfectly suited to the needs of industrial and commercial energy storage.

Alice-500TS (DC500)(1075kWh)

Diverse Functions: It supports peak shaving and valley filling, demand-side response, backup power supply, and other major functions; it enables remote updates of operational strategies and firmware upgrades, resulting in lower operation and maintenance costs.

High Integration: The system is productized, integrating energy storage batteries, PCS(Power Conversion System), power distribution, temperature control, fire protection, water immersion door sensors, and monitoring communication, providing comprehensive control over the system's operational status and risks.

Model	Monet-(DC500)
Photovoltaic(PV) port	
PV voltage range	250~500V (MPPT)
Max.PV input current	10*160A
MPPT quantity	1/5/10
Battery port	
Battery voltage range	600~950V
DC side bus power	500kW
Number of DC side inputs	1

Model	Alice- (1075kWh)
Battery parameters	
Battery rated capacity	215kWh*5
Battery rated voltage	768V
Battery voltage range	672~864V
Series of Battery	5P*20S*12S
Adaptive battery	LFP
Cell Capacity	280Ah
General parameters	
Degree of protection	IP55
Ambient temperature	-25°C to +60°C (derating above 45°C)
Relative humidity	0 ~ 95% (no condensation)
Fire extinguishing system	Perfluorohexane/heptafluoropropane pipeline fire extinguishing system
Battery compartment cooling method	Air Conditioning
Electrical compartment cooling method	Intelligent Air Cooling
Altitude	3000m (> 2000m reduction)
Communication interface	RS485 / CAN
Dimensions (W * D * H)	6058*2438*2591mm
Weight (approx.)	12t

• Model Description

Alice– 500 T S (DC500) (1075kWh)

- Rated Battery Capacity
- DC rated power
- S stands for STS
- With isolation transformer
- AC rated power
- Series name

Alice-1000TS (DC1000)(2150kWh)

Flexible and Convenient: Modular PCS allows for linear expansion of battery units and bidirectional energy storage inverter units;it possesses independent charging and discharging control capabilities for multiple battery packs, enhancing battery utilization and safety.

Safe and Intelligent: A fault escalation handling mechanism responds to preset fault scenarios; customized BMS (Battery Management System) provides comprehensive measurement and protection functions; it supports cloud-based dispatching and operational report analysis.

Model	Monet-(DC500)*2
Photovoltaic(PV) port	
PV voltage range	315 - 550V (Minimum battery voltage - 50V)
Max.PV input current	10*160A
MPPT quantity	1/5/10
Battery port	
Battery voltage range	600~950V
DC side bus power	500kW
Number of DC side inputs	1

Model	Alice- (2150kWh)
Battery parameters	
Battery rated capacity	215kWh*10
Battery rated voltage	832V
Battery voltage range	672~864V
Series of Battery	10P*20S*12S
Adaptive battery	LFP
Cell Capacity	280Ah
General parameters	
Degree of protection	IP54
Ambient temperature	-25°C to +60°C((Derating above 45°C)
Relative humidity	0 ~ 95% (no condensation)
Fire extinguishing system	Perfluorohexane/heptafluoropropane pipeline fire extinguishing system
Battery compartment cooling method	Air Conditioning
Electrical compartment cooling method	Intelligent Air Cooling
Altitude	3000m (> 2000m reduction)
Communication interface	RS485 / CAN
Dimensions (W * D * H)	12196*2438*2896mm (Container); 800*800*2100mm(Combiner Converter)
Weight (approx.)	27.5t

• Model Description

Alice– 1000 T A (DC1000) (2150kWh)

- Rated Battery Capacity
- DC rated power
- A stands for ATS, and N/A means missing
- With isolation transformer
- AC rated power
- Series name

SKY ESS SERIES 2.0
CERTIFICATE

Country	Classification	Standard
Thailand	Grid Tied	MEA, Anti - backflow
Thailand	Grid Tied	PEA
Europe (CE), South Africa, Vietnam, India/Pakistan	Safety Standard	IEC62477 - 1:2012+A1 IEC62477 - 1:2012+A1+A1
		IEC62477 - 1:2012+A1
	EMC	EN/IEC 61000 - 6 - 2:2019 EN/IEC 61000 - 6 - 4:2019
	Energy E□ciency & Environment	IEC 61683:1999 IEC 60068 - 2 - 1:2007 IEC 60068 - 2 - 2:2007 IEC 60068 - 2 - 14:2007 IEC 60068 - 2 - 24:2009 IEC 60068 - 2 - 30:2005
Vietnam, India/Pakistan	Grid Tied	IEC 61727:2004 IEC 62116:2014
Europe (CE)	EMC	IEC 61000, IEC 62920
	Safety Standard	IEC 62109, IEC62477
	Grid Tied	IEC 61727, IEC 62116
Europe	Grid Tied	EN 50549 - 9, EN 50549 - 10
Belgium	Grid Tied	C10/11.2019
Netherlands Deviation	Grid Tied	Netherlands Deviation
South Africa	Grid Tied	NRS - 097
Germany	Grid Tied	VDE - AR - N 4105, VDE0124 - 100
UK	Grid Tied	G99
UK	Grid Tied	G100

*All the above certificates are issued by TUV

LAND ESS SERIES 2.0-ESS

- 125kW/261kWh Liquid Cooling ESS
- 215kW/418kWh Liquid Cooling ESS
- 50kW/128kWh ESS Cabinet for Photovoltaic

The ESS system is composed of a lithium iron phosphate battery system, a Battery Management System (BMS), an AC/DC power converter (PCS), an Energy Management System (EMS), along with other electrical circuits and protection and monitoring systems.

125kW/261kWh
Liquid Cooling ESS

The 261 kwh liquid cooling energy storage cabinet is an optimized integration of high-quality 314Ah LFP Batteries, a self-developed Battery Management System (BMS) and Energy Management System (EMS) a thermal manaaement svstem, an AC/DC power converter (PCS), a power distribution system, and a fire protection system. This product features an industry-leading design with separate compartments for the battery and electrical systems, The protection arade reaches IP55, e□ectively safeauardina and extendina battery life.

Model	125kW/261kWh
Basic Parameters	
Rated Power	125 kW
Battery Capacity	261 kWh
Cabinet Dimensions (W-D-H)	1000 mm * 1350 mm * 2380 mm
Weight	About 2.8t
DC Side Parameters	
Cell	LFP 3.2V / 314 Ah
System Configuration	1P52S*5
Battery Voltage Range	650.0VDC ~ 936.0VDC
AC Side Parameters	
Rated Output Voltage	400 (-15% ~ 15%) V
Rated Grid Frequency	50 ~ 60 Hz
Charge/Discharge Transition Time	< 100 ms
System Parameters	
Cycle Life	8000 ~ 10000 Times
Cabinet Energy Conversion Rate	Annual average exceeds 90%, with a maximum of over 91%
Battery Compartment IP grade	IP55
Operating Temperature	-20℃ ~ +50℃
Corrosion Resistance Grade	C3
Overvoltage Protection	DCTypeI / ACType II
Fire Suppression System	PACK-level precision fire suppression + cabin-level fire suppression (using Perfluoro)+ water-based fire suppression
Overload Capacity	1.1 Times
Permissible Ambient Humidity	0 ~ 95% RH
Cooling Method	Intelligent liquid cooling

• Product Feature

SAFETY
Comprehensive safety measures are employed, including water-based fire suppression, battery compartment explo-sion-proof valves, and electronic dehumidifiers.

EFFICIENCY
The cabinet's energy conversion rate averages over 90% annually, with a maximum exceeding 91%, 4%-5% higher than average rate.

LONG LIFESPAN
Utilizing high-capacity, long-cycle-life premium battery cells from top-tier manufacturers, The cabinet is guaran-teed for 12 years and can be used for up to 15 years.

CONVENIENCE
Integrated power distribution design, easy installation, easy maintenance, and real-time online monitoring of equip-ment operation status.

FLEXIBILITY
Seamless side-by-side configuration, support-ing up to 10 units in parallel. The system features low-volage side access and plug-and-play functionality.

215kW/418kWh
Liquid Cooling ESS

The 418 kwh liquid cooling energy storage cabinet is an optimized integration of high-quality 314Ah LFP Batteries, a self-developed Battery Management System (BMS) and Energy Management System (EMS) a thermal manaaement svstem, an AC/Dc power converter (PCS), a power distribution system, and a fire protection system. This product features an industry-leading design with separate compartments for the battery and electrical systems, The protection arade reaches IP55, e□ectively safeauardina and extendina battery life.

Model	418L(Low Voltage)	418H(Tall Voltage)
Basic Parameters		
Rated Power	215 kW	215 kW
Battery Capacity	418 kWh	418 kWh
Cabinet Dimensions (W-D-H)	1420 mm * 1350 mm * 2390 mm	1420 mm * 1350 mm * 2390 mm
Weight	About 4 t	About 4 t
DC Side Parameters		
Cell	LFP 3.2 V / 314 Ah	LFP 3.2 V / 314 Ah
System Configuration	1P52S * 8	1P52S * 8
Battery Voltage Range	1164.8VDC ~ 1497.6VDC	1164.8VDC ~ 1497.6VDC
AC Side Parameters		
Rated Output Voltage	400(-15% ~ 15%) Vac(Low Voltage)	690(-15% ~ 15%) Vac
Rated Grid Frequency	50 ~ 60 Hz	50 ~ 60 Hz
Charge/Discharge Transition Time	< 100 ms	< 100 ms
System Parameters		
Cycle Life	8000 ~ 10000 Times	8000 ~ 10000 Times
Cabinet Energy Conversion Rate	Annual average exceeds 88%, with a maximum of over 89%	Annual average exceeds 88%, with a maximum of over 89%
Battery Compartment IP grade	IP55	IP55
Operating Temperature	-20℃ ~ +50℃	-20℃ ~ +50℃
Corrosion Resistance Grade	C3	C3
Overvoltage Protection	DCTypeI / ACType II	DCTypeI / ACType II
Fire Suppression System	PACK-level precision fire suppression + cabin-level fire suppression (using Perfluoro) + water-based fire suppression	PACK-level precision fire suppression + cabin-level fire suppression (using Perfluoro) + water-based fire suppression
Overload Capacity	1.1 Times	1.1 Times
Permissible Ambient Humidity	0 ~ 95% RH	0 ~ 95% RH
Cooling Method	Intelligent liquid cooling	Intelligent liquid cooling

• Product Feature

SAFETY
Comprehensive safety measures are employed, including water-based fire suppression, battery compartment explo-sion-proof valves, and electronic dehumidifiers.

EFFICIENCY
The cabinet's energy conversion rate averages over 88% annually, with a maximum exceeding 89%, 4%-5% higher than average rate.

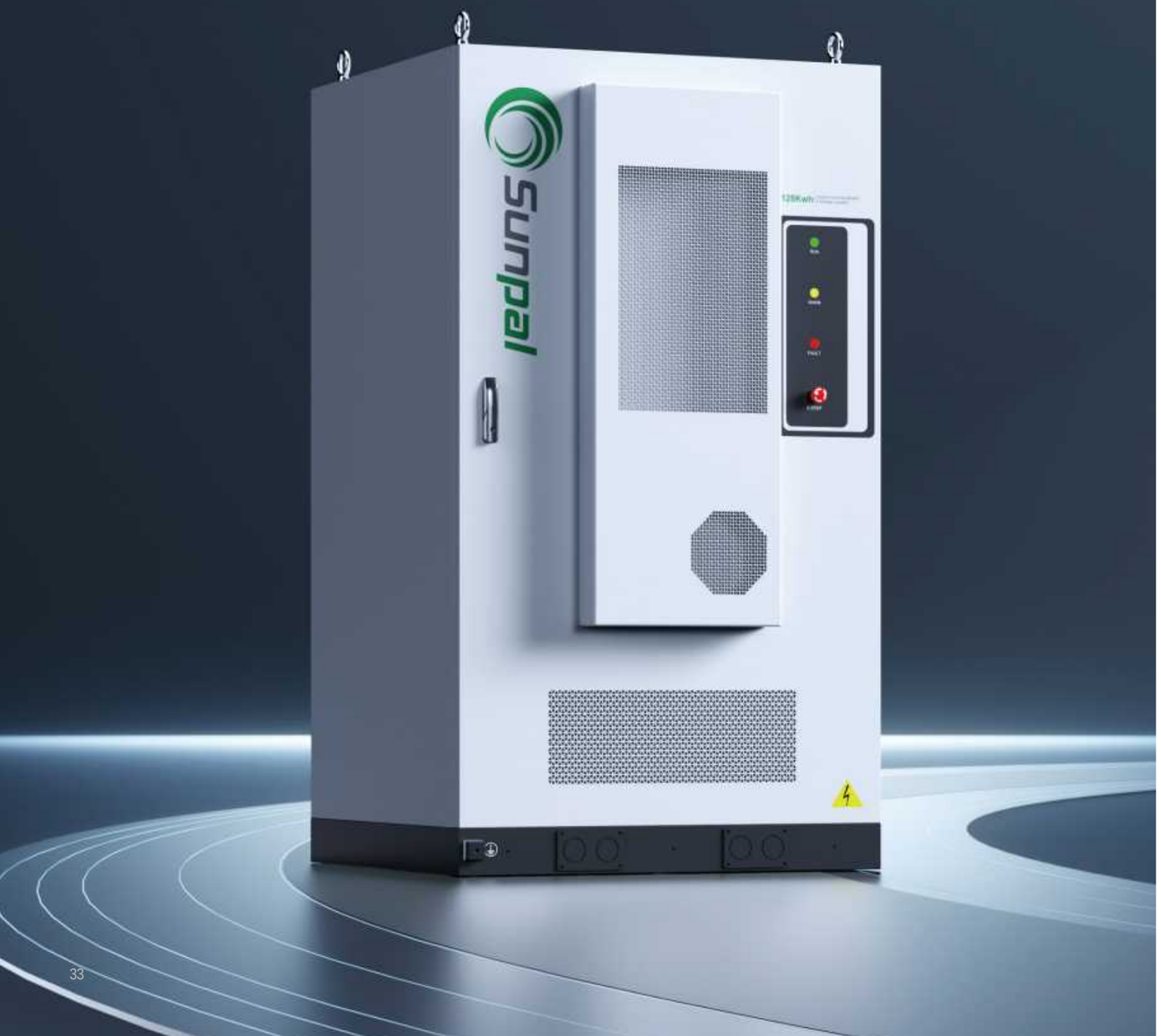
LONG LIFESPAN
Utilizing high-capacity, long-cycle-life premium battery cells from top-tier manufacturers, The cabinet is guaran-teed for 12 years and can be used for up to 15 years.

CONVENIENCE
Integrated power distribution design, easy installation, easy maintenance, and real-time online monitoring of equip-ment operation status.

FLEXIBILITY
Supporting up to 12 units in parallel, enabling rapid connec-tion to medium and high-voltage grids via a step-up transformer, also support low voltage (400V) access.

50kW/128kWh
Air Cooling ESS

Our 128kwh air cooling cabinet is a pioneering product in China for photovoltaic solutions, designed specifically for small and medium-sized industrial enterprises and township industrial parks. This Ess cabinet inteqrates high -quality 314Ah LFP batteries , a Battery Management System (BMS), an Energy Management System (EMS), a thermal management system, a PV inverter (PCS), a power distribution system, and a fire protection system. The product supports direct connection to photovoltaic systems covering 160-200 square meters, ena bling the combined functionality of solar power generation andenergy storage.



Model	50kW/128kWh
Basic Parameters	
Rated Power	50 kW
Battery Capacity	128 kWh
Cabinet Dimensions (W-D-H)	1140 mm * 1140 mm * 2020 mm
Weight	About 1.8 t
DC Side Parameters	
Cell	LFP 3.2 V / 314 Ah
System Configuration	1P16S * 8
Battery Voltage Range	358.4VDC ~ 460.8VDC
AC Side Parameters	
Rated Output Voltage	400V
Rated Grid Frequency	50 ~ 60 Hz
Charge/Discharge Transition Time	< 100 ms
System Parameters	
Cycle Life	8000 ~ 10000 Times
Cabinet Energy Conversion Rate	Annual average exceeds 88%, with a maximum of over 89%
Battery Compartment IP grade	IP54
Operating Temperature	-20℃ ~ +50℃
Corrosion Resistance Grade	C3
Overvoltage Protection	PV II / ACType III
Fire Suppression System	cabin-level fire suppression (using Perfluoro)+ water-based fire suppression
Overload Capacity	1.1 Times
Permissible Ambient Humidity	0 ~ 95% RH
Cooling Method	Air Cooling

• Product Feature

SAFETY
Comprehensive safety measures are employed, including water-based fire suppression, battery compartment explo-sion-proof valves, and electronic dehumidifiers.

EFFICIENCY
The cabinet's energy conversion rate averages over 88% annually, with a maximum exceeding 89%, 4%-5% higher than average rate.

LONG LIFESPAN
Utilizing high-capacity, long-cycle-life premium battery cells from top-tier manufacturers, The cabinet is guaran-teed for 12 years and can be used for up to 15 years.

CONVENIENCE
Integrated power distribution design, easy installation, easy maintenance, and real-time online monitoring of equip-ment operation status.

FLEXIBILITY
Supporting up to 12 units in parallel, enabling rapid connec-tion to medium and high-voltage grids via a step-up transformer, also support low voltage (400V) access.

LAND ESS SERIES 2.0-CONTAINER

- 3.72MWh Container ESS
- 5MWh Container ESS

The Container ESS system is composed of a lithium iron phosphate battery system, a Battery Management System (BMS), an Energy Management System (EMS), a Fire protection system, along with other electrical circuits and protection and monitoring systems.

3.72MWh
Container ESS

Highly integrated: Featuring a unified design, the energy storage system integrates the battery system, thermal management system, fire protection system, and energy management system, It is easy for transportation and installation.

E□cient and Flexible: Pre-assembled at the factory, it simplifies on-site instalation and commissioning time. Independent pack maintenance windows eliminate the need to open pack boxes, enhancing maintenance e□ciency.

Safe and Reliable: Equipped with intelligent cell health monitoring to proactively identify problematic cells, and pack-level active fire protection compatible with multiple fire suppression methods.

Smart Operation: Real-time monitoring via Web/App, optimized strategies using artificial intelligence algorithms to maximize returns.

Model	3.72MWh
Basic Parameters	
Rated Power	1860 kW
Battery Capacity	3727 kWh
Cabinet Dimensions (W-D-H)	6058 mm * 2700 mm * 3140 mm
Weight	< 35t（Utility-Scale Energy Storage System）
Open ways	Side Opening
Mobility	/
DC Side Parameters	
Cell	LFP 3.2V / 280 Ah
System Voltage Range	1123.2VDC ~ 1497.6VDC
AC Side Parameters	
Permissible Grid Voltage	800 (-15%~15%) Vac
Rated Grid Frequency	50 / 60 Hz
System Parameters	
Maximum Cycle E□ciency	>90 %
Battery Compartment IP Grade	IP55 (Battery Compartment)
Operating Temperature	-20°C ~ +50°C
Corrosion Resistance Grade	C4
Temperature Control Method	Liquid Cooling System / Air Cooling System
Fire Suppression System	Gas Fire Suppression + Emergency Ventilation + Water Fire Suppression
Compartment Design	Multi - Compartment Design
Power Distribution Design	Centralized PCS, DC Bus Control Cabinet
AC Output Interface	Aviation Plug / Copper Busbar

• Product Feature

SAFETY

Three-level protection at the pack, cluster, and PCS levels, enabling precise hierarchical shutdown to minimize losses. Multi-compartment container design to prevent thermal runaway, with a three - layer fire protection system and two-level spray protection.

EFFICIENCY

PCS maximum e□ciency ≥ 98%. Seamless parallel operation of multiple units, supporting 2/3/4-hour system applications. Integrated high - e□ciency liquid cooling system with a temperature di□erence within the container < 5°C.

HIGH INTEGRATION

Separate design for the electrical compartment and battery compartment, Easy maintenance. Modular design allows flexible capacity expansion to meet varying scale requirements. Liquid - cooled battery systems of the same capacity save 40% land occupation.

5MWh
Container ESS

The 5Mwh container Ess is optimized and integrated by high-quality 314Ah LFp battery, intelligent BMS EMS &Pcs , thermal management svstem, fire protection system with high safety, high integration, long lifespan, high e□ciency advantages.

It is widely applicable in grid-connected scenarios such as frequency regulation, voltage support peak-valley arbitrage, peak shaving, demand response, and renewable energy integration, it can also be used in o□-grid like black start, backup power, and microgrids.

Model	5MWh
Basic Parameters	
Rated Power	2507 kW
Battery Capacity	5015 kWh
Cabinet Dimensions (W-D-H)	6250 mm * 2700 mm * 3100 mm
Weight	< 42t
Open ways	Side Opening
Mobility	/
DC Side Parameters	
Cell	LFP 3.2V / 314 Ah
System Voltage Range	1164.8VDC ~ 1500VDC
AC Side Parameters	
Permissible Grid Voltage	1331.2 (-15% ~ 15%) V
Rated Grid Frequency	50 / 60 Hz
System Parameters	
Maximum Cycle E□ciency	>90 %
Battery Compartment IP Grade	IP55 (Battery Compartment)
Operating Temperature	-20°C ~ +50°C
Corrosion Resistance Grade	C3
Temperature Control Method	Liquid Cooling System / Air Cooling System
Fire Suppression System	Gas Fire Suppression + Emergency Ventilation + Water Fire Suppression
Compartment Design	Multi - Compartment Design
Power Distribution Design	Centralized PCS, DC Bus Control Cabinet
AC Output Interface	Aviation Plug / Copper Busbar

• Product Feature

SAFETY

Three-level protection at the pack, cluster, and PCS levels, enabling precise hierarchical shutdown to minimize losses. Multi-compartment container design to prevent thermal runaway, with a three - layer fire protection system and two-level spray protection.

EFFICIENCY

PCS maximum e□ciency ≥ 98%. Seamless parallel operation of multiple units, supporting 2/3/4-hour system applications. Integrated high - e□ciency liquid cooling system with a temperature di□erence within the container < 5°C.

HIGH INTEGRATION

Separate design for the electrical compartment and battery compartment, Easy maintenance. Modular design allows flexible capacity expansion to meet varying scale requirements. Liquid - cooled battery systems of the same capacity save 40% land occupation.

ENERGY MANAGEMENT SYSTEM(EMS)

Leading Smart EMS

50A-300A

Multiple Discharge Rate Options

Over 40+

Adaptive Inverter Protocol Selection

The energy storage EMS energy management system completes the centralized monitoring and management of the entire energy storage power station, and connects with power quality monitoring devices, grid-connected protection devices, fan systems, secondary telecontrol systems, PCS, BMS, air conditioning control devices and other systems and devices through RS485/RS232/Ethernet/CAN, etc., collects the operating data of each device and uploads important information to the power grid dispatching center and the cloud control cloud to achieve real-time monitoring of the energy storage system.

At the same time, it receives commands from the dispatching center or the cloud control cloud, and adopts corresponding optimization strategies according to di□erent operating modes to control the charging and discharging of the energy storage system to meet the peak and frequency regulation needs of the power grid and the safe and stable operation of the power grid.

APP MONITORING

Control and Monitor The System

Detection & Control

Real-time monitoring of battery voltage, current, temperature and other parameters, and control according to the set parameter range

Signal Processing

Receive control instructions from the external system and send battery status information, and process thereceived instructions and information.

Data Processing & Storage

Process and analyze the collected battery parameters, and record and store the battery's operating status and historical data.

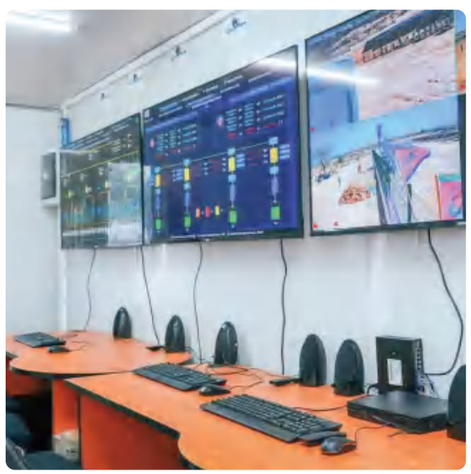
Bluetooth, WiFi Function

Remote real-time monitoring, online parameter setting, OTA software upgrade.

GLOBAL PROJECT

Czech Republic

South Africa



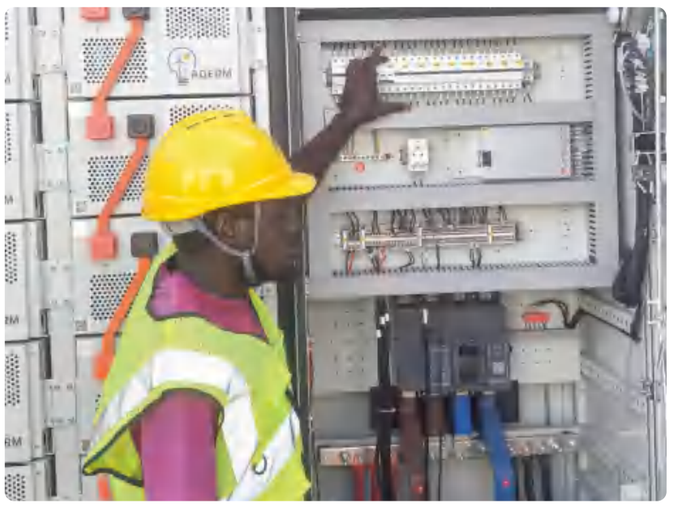
Chad

Afghanistan

Lebanon

Germany

South Africa



Aruba