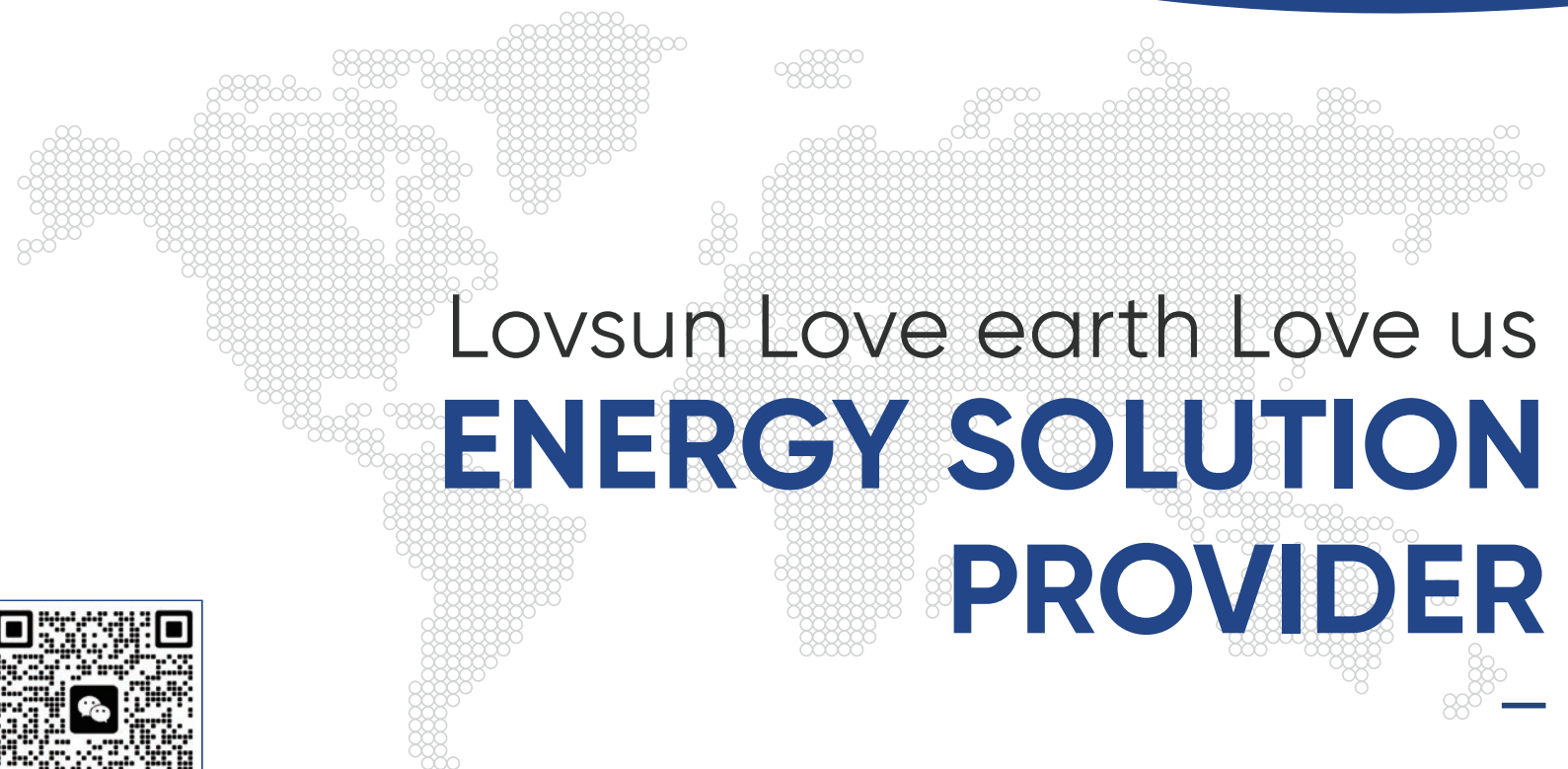




Lovesun Love earth Love us
**ENERGY SOLUTION
PROVIDER**

LOVSUN TEK CO.,LTD

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WhatsApp



WeChat

2026

COMPANY PROFILE

Lovsun Tek Co., Ltd. specializes in hybrid solar power plants and battery energy storage systems (BESS). Our unwavering focus on technological innovation and strict quality control ensures that every system we provide meets international standards and exceeds customer expectations.

Quality is the cornerstone of our development. We have established a comprehensive quality management system –such as BESS ,we flow up from battery cell selection to module assembly , factory testing, and on-site commissioning. All other core components (PCS, inverters, solar panels, transformers etc.) are strictly selected from well-known suppliers, and each batch of components undergoes rigorous performance testing and quality inspection to ensure compliance with international standards such as IEC, UL, and ISO.

Our products range from small and medium, scale commercial solar storage systems to large scale containerized energy storage systems. Through years of exploration and practical implementation, we have accumulated extensive expertise and technical capabilities in hybrid solar power and energy storage systems.

Our hybrid energy storage systems and off grid solar solutions have earned high recognition and trust from clients across Southeast Asia, Africa, Central America and Europe.

Backed by a professional, innovative, and internationally minded team, we are committed to advancing the global new energy industry. Gratitude, reliability, responsibility, and innovation serve as our core values. We look forward to collaborating with you to build a sustainable energy future.



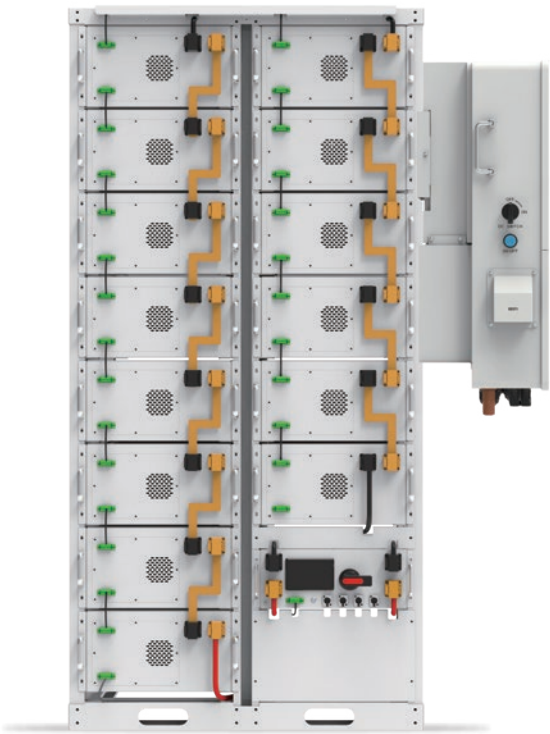
High Performance Commercial & Industrial ESS

BATTERY

60~240kWh

HYBRID INVERTER

30~125kW



Flexible

Highly integrated All pre-assembled Extend-able



Efficient

Intelligent cooling system
Higher system efficiency



Reliable

DC electric circuit safety protection Multi level bat-tery protection



Smart

State monitoring and faults record Battery performance monitoring and logging



Outdoor Cabinet Liquid Cooling Energy Storage System

100kW 215kWh

- Flexible Integration: Seamlessly connects with Solar PV, Grid, and Diesel Generators (DG).
- Reliable Power: Support for both On-Grid and Off-Grid applications, ensuring 24/7 power continuity.
- Smart Economics: Maximize ROI through peak-shaving, valley-filling, and solar self-consumption.

Outdoor Cabinet Energy Storage System

100kW 261kWh

- Solar-Prioritized Mode: Automatically optimizes PV usage to power loads and charge batteries, minimizing grid reliance.
- Peak-Valley Arbitrage: Charges during off-peak hours (low tariff) and discharges during peak hours (high tariff) to slash electricity bills.
- Back-up / Off-grid Mode: Instant switchover to battery or Diesel Generator power during grid outages, ideal for remote or unstable areas.
- Hybrid Charging: Intelligent power allocation between PV, Grid, and Generator to keep the system at optimal SOC.



OUTDOOR CABINET ENERGY STORAGE SYSTEM



Note: Different projects have different battery pack quantities and specifications, and the structures may be slightly different.

Battery Energy Storage System



KEY STRENGTHS

- Multiple working modes can be flexibly set.
 - Support battery management system and comprehensive thermal management,
 - The electrical compartment and battery compartment are separated to prevent runaway spread of heat.
- Support real-time online monitoring of system status.
 - Support simultaneous access to load, battery, grid,dg, and pv.
 - Integrated design, easy to transport and install,flexible deployment.

More Energy	All-in-one Design	Simple O&M	Safe & Reliable
Pack-level Optimization String-level Optimization	Ac/dc All-in-one Design Reducing Initial Investment	No Periodic Balancing No Experts Site Visit	Modular Design High Availability

System Technical Specifications

Item	20C2H500K-NA		20C2H500K-EX	
DC Data				
Battery chemistry	Lithium Iron Phosphate (LFP)			
Cell life cycle	80% Retention with more than 6,000 Cycles @ 0.5C 25°C			
Cell spec	3.2V/280Ah			
String configuration	1P224S			
Number of strings	6			
Rated energy capacity	1.2MWh			
DC rated energy capacity	1.204.224kWh			
Rated voltage	716.8V			
Voltage range	602V~784V			
BMS communication interface	RS485, Ethernet			
BMS communication protocol	Modbus RTU, Modbus TCP			
AC Data				
Rated AC power	500kW			
Maximum AC power	550kW			
Rated voltage	480V		400V	
Grid voltage range	432~528V(Configurable)		342~418V(Configurable)	
AC rate of current	601.4A		721.7A	
Output THDi	< 3%			
AC PF	0.1~1 leading or lagging (Controllable)			
AC output	3-Phase 4-Wire+PE		3-Phase+PE	
General Data				
Dimension w/o clearances (L*W*H)	6,058x2,438x2,591mm			
Weight of the whole system	22t		20.7t	
Degree of protection	IP54			
Operating temperature range	-20~40°C			
Relative humidity	0~95% (non-condensing)			
Max working altitude	3000m/10000feet (> 2000m/6500feet derating)			
Cooling concept of DC hatch	HVAC			
Fire fighting system	NOVEC1230/FM-200			
Communication interfaces	RS485, Ethernet, GPRS			
Certificates	UL9540, IEC62933, UN3536, etc			

I SOLAR ENERGY SYSTEM

WHOLE SOLUTION

PROVIDER



Smooth New Energy Output



Voltage, Frequency Support,
Frequency Modulation



Peak Valley Arbitrage



Demand Management



| Turnkey C&I BESS 2.5MW/5MWh

1500Vdc Containerized Energy Storage & Transformer
Turnkey System
BCS2500K~3450K-B-HUD/T Series



Battery Energy Storage Container
5MWh(Liquid cooled)

Efficient and Secure/Explosion Proof Detection/Cloud Management/High
Energy Density



Product Specifications

Items	BCS2500K-B-HUD/T	BCS3000K-B-HUD/T	BCS3450K-B-HUD/T
DC voltage range	1000-1500Vdc		
Rated AC output power	2500kW	3000kW	3450kW
Rated grid-tied voltage	690Vac 3P3W+PE		
Voltage transformation ratio	0.69/(6-35)kV		

Product Specifications

Maximum System Power	Nominal Power Consumption	Available Power	Nominal Output Voltage	Frequency
2500KW	5015kwh	5015kWh	1331.2V	50 /60HZ
Cooling Method	Serial Parallel Method	Noise	Dimensions (mm)	Allowable Working Environment Temperature
Liquid Cooling	12P416S	<75dB	6250x2550x3000	-25° C ~60° C

| Battery Energy Storage System

1-2MW

2 – 4 * 500kW PCS or inverter



40' 1MW/2MWh



100-500kW

100-500kW PCS



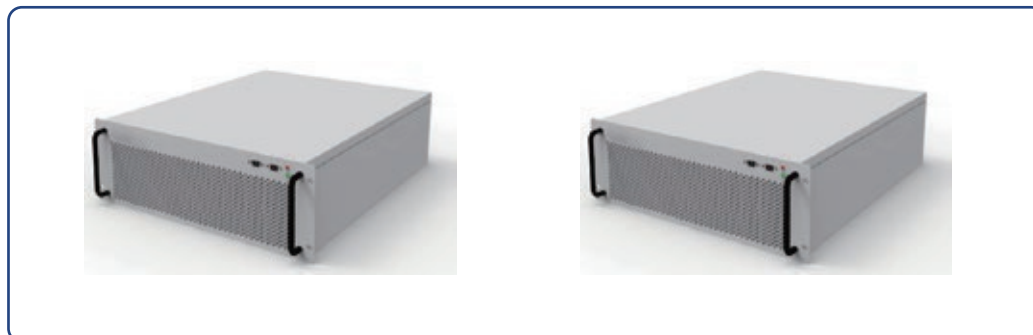
500kW/1MWh



50kW
100kW

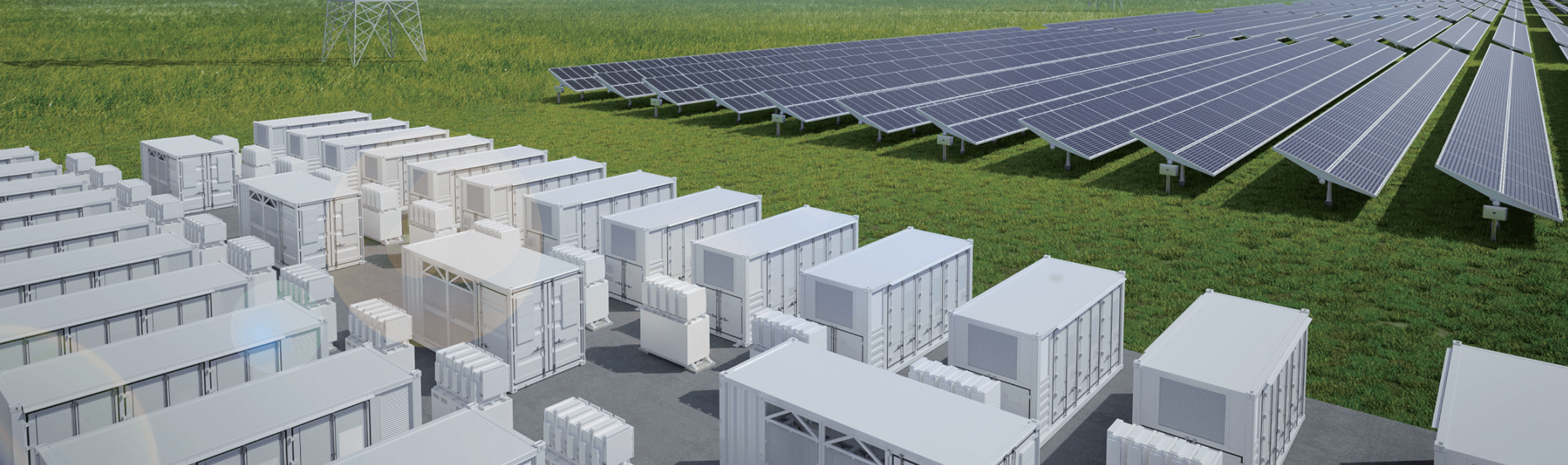
500kW STS 250kW STS

50kW DC/DC

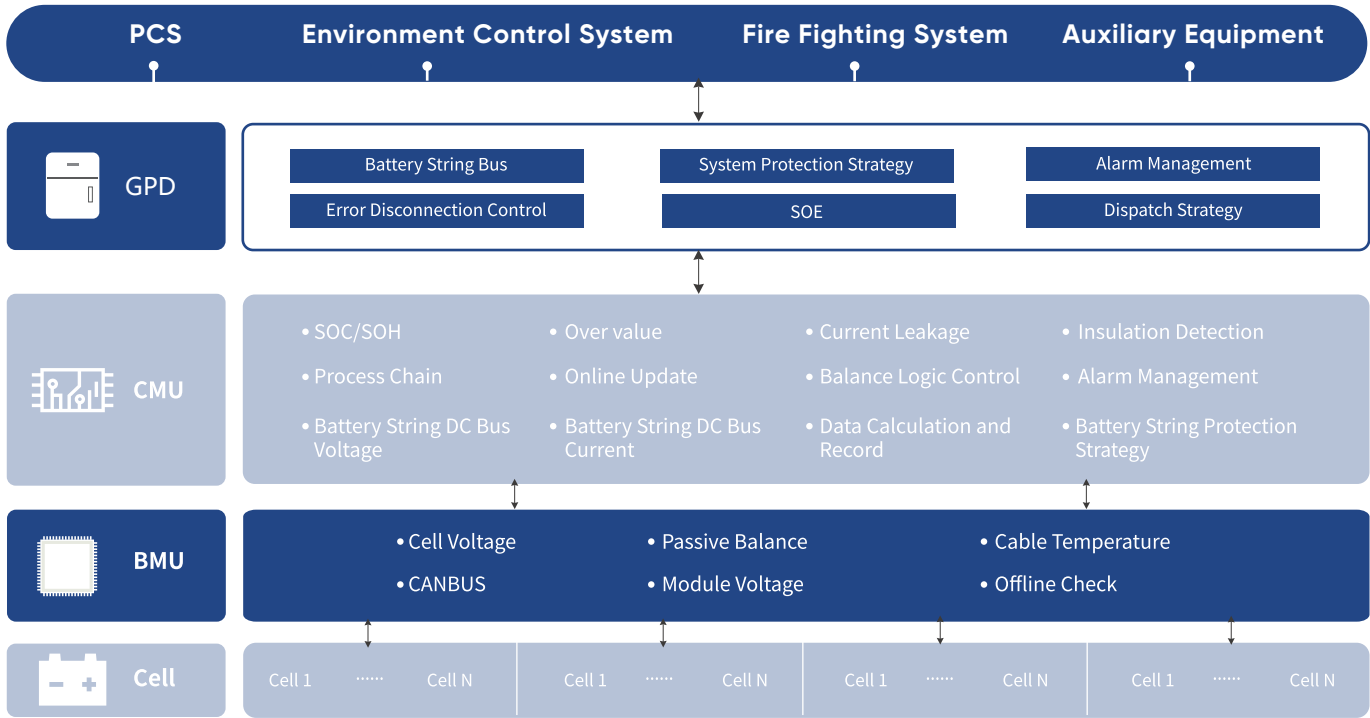


100kW/215kWh 50kW/100kWh





EMS (Energy management system)



BMU		CMU	
Cell Voltage Measurement Accuracy	±5 mV	Battery String Voltage Measurement Range	100~1,000V
Cell Voltage Monitoring Interval	≤200ms	Battery String Voltage Measurement Accuracy	±1%
Cell Temperature Measurement Accuracy	±2℃	Battery String Voltage Monitoring Interval	≤100ms
Cell Temperature Measurement Interval	≤3s	Battery String Current Measurement Range	±300A
Cell Current Balance	Passive Balance, 150mA MAX	Battery String Current Measurement Accuracy	≤1%
Cell Voltage Measurement Range	1~5 V	Battery String Current Monitoring Interval	≤50ms
Over-current Protection	250A/1s	SOC Calculation Accuracy	≤8%
Short-Circuit Protection	500A/10ms	Input Insulation Resistance	≥10MΩ, 1,000VDC

APPLICATIONS

- » Battery Energy Storage System
- » Frequency modulation peak modulation energy control
- » C&I peak cutting and valley filling energy control
- » PV charging stationenergy control



166/182/210MM_{size}

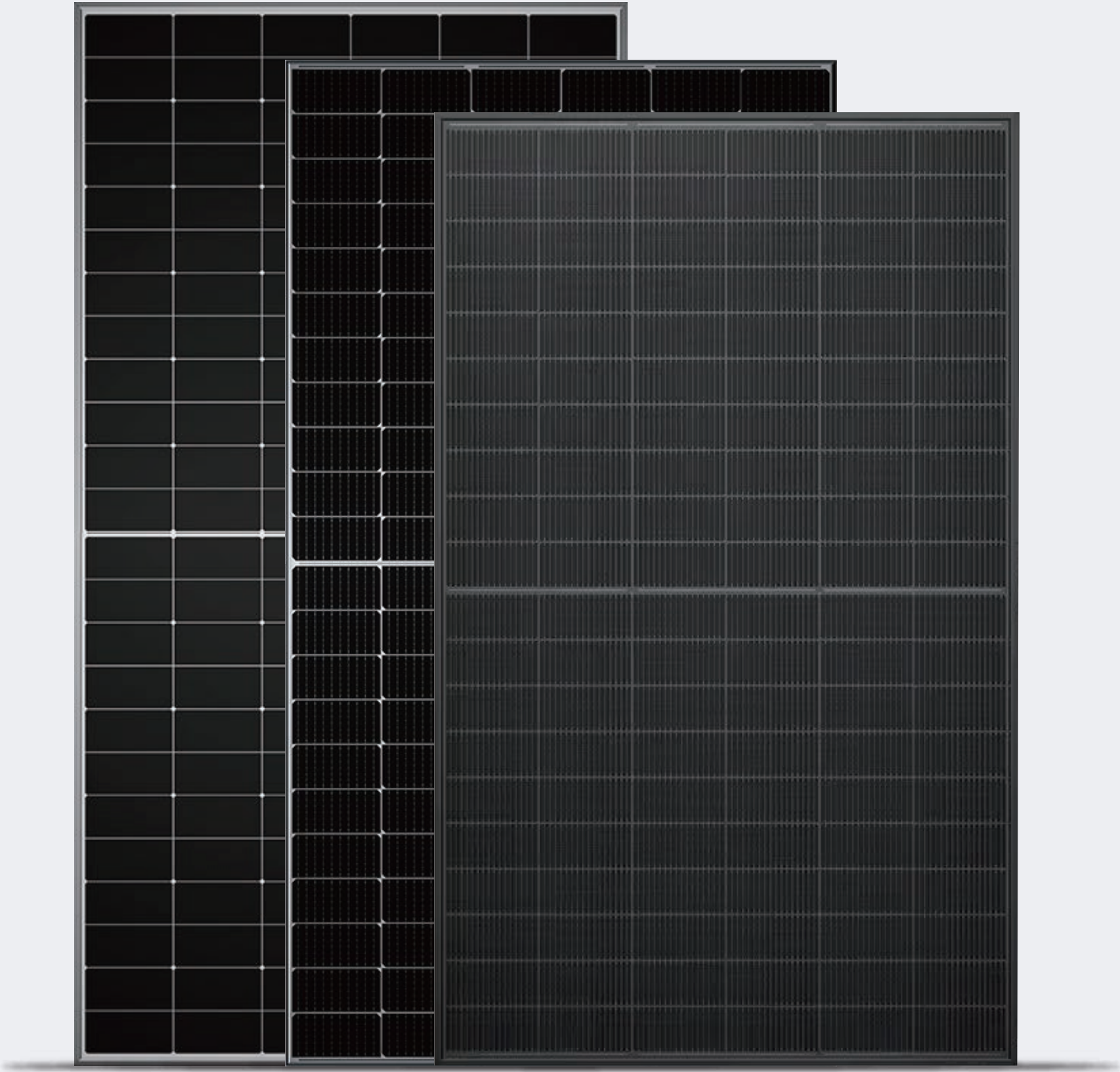
HOT PROOUCT

DIVERSIFIED SOLAR MODULES MEET DIFFERENT NEEDS

450W-750W

-  Partial Shading Optimisation
-  Better Temperature Coeffcient
-  High Temperature Restriction
-  Micro-crack Resistance

Comprehensive Product And System Certifcates



CHARM 10/11/12

| Development History

2014

Founded EPC Contrator of Solar Energy System

2016

Updated Production Line
Annual Capacity 200mw

2018

Self Developed Optimal
Solar System One Stop Solution

2022

Global Cumulative Solar Energy
System Shipment Reached To 5GW

2026

Solar Enery With Bess
Achieved Mass Product

| Turnkey Solar Projects Supplier One-Stop Solutions



02

Engineering & Documentation

System configuration confirmation and complete grid-connection documentation.



04

Installation & Commissioning

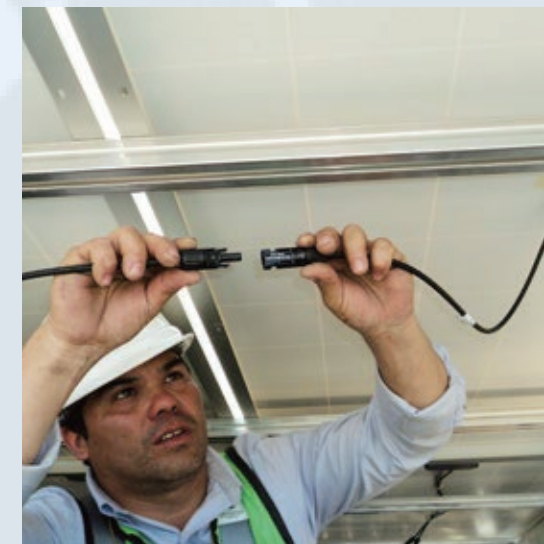
Professional installation guidance and strict system commissioning.



05

Performance & ROI Maximization

Lower electricity costs and maximize ROI with smart energy management.



03

Production & Logistics

Efficient production arrangement and reliable global delivery.



01

Project Research & System Design

Professional project analysis and customized system design.

During The Use Of The Product, After-sales Team 24/7 Ready To Help Solve Problem
Warranty Work Can Be Performed Locally In Europe With In 48 Hours.

Battery Production Line



Battery Production Line



Project Cases

Commercial



20MW Solar Plant+40MWH BESS



1.88MW Roof Solar System



200MW/400MWh Battery Energy Storage Project



100MW Solar Plant + 40MWH BESS



Mexico 500KW 1MWH integrated BESS



Ukraine Capacity:750kW+2MWh

Sea and Land Transportation Arrangement

(FCA FOB CFR CIF & DAP Terms are acceptable)

