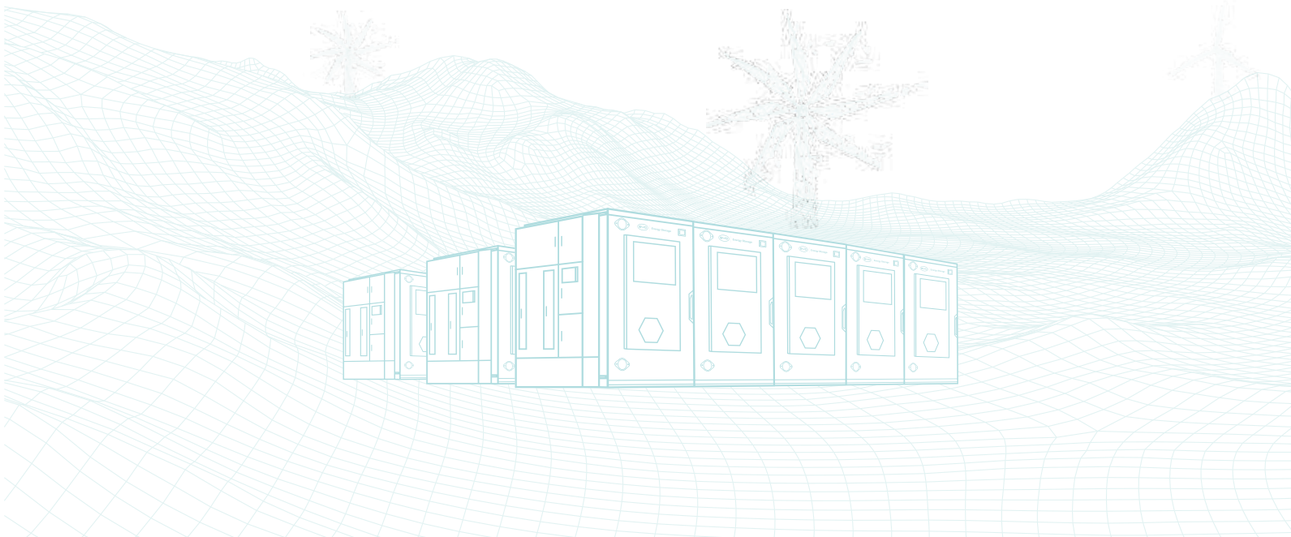
Energy Storage

BYD Energy Storage

Build Your Dreams



Contact

North America - Michael
+1 213-748-3980
michael.liu@byd.com

Asia Pacific-Bin Guo
+86 18666281028
guo.bin@fdbatt.com

Europe(UK) -Luby
+86 15725321970
luby.ni@fdbatt.com

Middle East&Africa - Helen
+86 13556263099
helen.yu1@fdbatt.com

ASEAN Countries - Bin Guo
+86 18666281028
guo.bin@fdbatt.com

Southern Europe - Domingo
+86 13424216758
Domingo.zhu@fdbatt.com

South America - Camilo
+86 18026914654
camilo.ling@fdbatt.com

202402-EN

Clean Energy for a Better Life

CONTENTS

ABOUT US

01

About BYD

TECHNOLOGICAL INNOVATIONS FOR A BETTER LIFE

BYD Co., Ltd. (hereinafter referred to as “BYD”) was established in February 1995, headquartered in Shenzhen, Guangdong Province. Its business spans four major industries: automotive, rail transit, renewable energy, and electronics. It is among the Fortune 500 companies, and is listed on the Hong Kong and Shenzhen Stock Exchanges. As of now, BYD has applied for more than 48 thousand patents and obtained more than 30 thousand authorized patents worldwide. BYD Group’s revenue in 2022 was CNY 424.06 billion, achieving a year-on-year (YoY) growth rate of 96.2%, while realizing a comprehensive rise of technologies, products, and market, and a new phase of synchronized development of all industries which center around passenger vehicles. In the first three quarters of 2023, BYD’s revenue reached CNY 422.28 billion, grew 57.8% YoY. BYD shoulders the responsibilities and duties of the era, firmly embraces the tides of automobile electrification and intelligence, and establishes itself as the leader of new energy vehicles in China and the world, as to pave a road of green innovation and development.

About BYD Energy Storage

BYD Energy Storage, established in 2008, stands as a global trailblazer, leader, and expert in battery energy storage systems. BYD Energy Storage specializes in research & development, manufacturing, marketing, service, and recycling of energy storage products. Leveraging cutting-edge battery technology, the company has successfully delivered safe and reliable energy storage solutions for hundreds of utility-scale, C&I, and residential projects worldwide, spanning over 107 cities, including the U.S., U.K., Germany, South Africa, Chile, Switzerland, Italy, Japan, *etc*. BYD Energy Storage looks forward to collaborating with you in pursuit of a cleaner and more sustainable future.

BYD Energy Storage Milestones

2008
Establishment of EPRI.

2009
World's first mobile energy storage cabinet with LFP batteries was put into operation.

World's first 1MW/4MWh LFP energy storage power station was put into operation.

2010
BYD signed the contract with China Southern Power Grid for the world's first MW-scale commercial LFP energy storage station.

2011
BYD began to expand into the international market, US Chevron 2MW/4MWh ESS Project-First Exported Containerized ESS.

The first 2 MW unit of the 6 MW energy storage station of the National Wind-Photovoltaic-Storage-Transmission Demonstration Project was connected to the grid successfully.

2012
BYD energy storage system appears on the Doha Climate Change Conference.

500kWh Containerized ESS was accepted by DUKE Energy.

2013
The world's first nuclear-grade backup power plant in Daya Bay, using LFP battery energy storage system.

2014
BYD became the first to pass the CSA authorized certification.

BYD's largest user-end LFP energy storage station in the world was completed in Pingshan.

2015
BYD became the only enterprise to pass the full set of certification tests for nuclear-grade energy storage equipment.

BYD had delivered 130MW in PJM market in the U.S. with 50%+ market share.

2016
BYD signed the strategic agreement with EDF in France and ENEL in Italy.

2018
BYD's "key technologies of LFP power battery and its application" won the second prize in the National Science and Technology Progress Award.

2019
BYD signed the 100MWh project agreement in Mexico.

MINIES residential energy storage system passed TUV certification.

2020
Cube T28 won SNEC TW-grade Diamond Award and 2020 China Most Influential Enterprise Award.

2021
BYD's 406MWh Cube Project in CA, U.S. was put into operation.

2023
Launched BYD MC Cube.
Launched C&I energy storage product—MC-I.
Largest wind + BESS power plant in China.
Highest altitude (5100 m) & extreme cold PV+BESS power plant.
Shared energy storage power plant for desert scenario.
Largest grid-connected PV + BESS power plant in the U.S.
Largest PV + BESS power plant in South Africa.

ADVANTAGES

02

R&D Innovation

Manufacturing

Awards & Honors

Cooperation Partners

Industrial Landscape

Technology-based,
Innovation-oriented

R&D Innovation

22 Years
Experience

600+
Ph.D.

10000+
R&D Personnel

MULTIPLE SAFETY TESTS

Fire Explosure

Vibration

Nail Penetration

Impact

Heating

Crush

Magic Cloud e.0

/Algorithm and Control Platform

Remote Upgrading

OTA remote upgrading, access to latest services.

One-key Remote Start

Commissioning free, less site work.

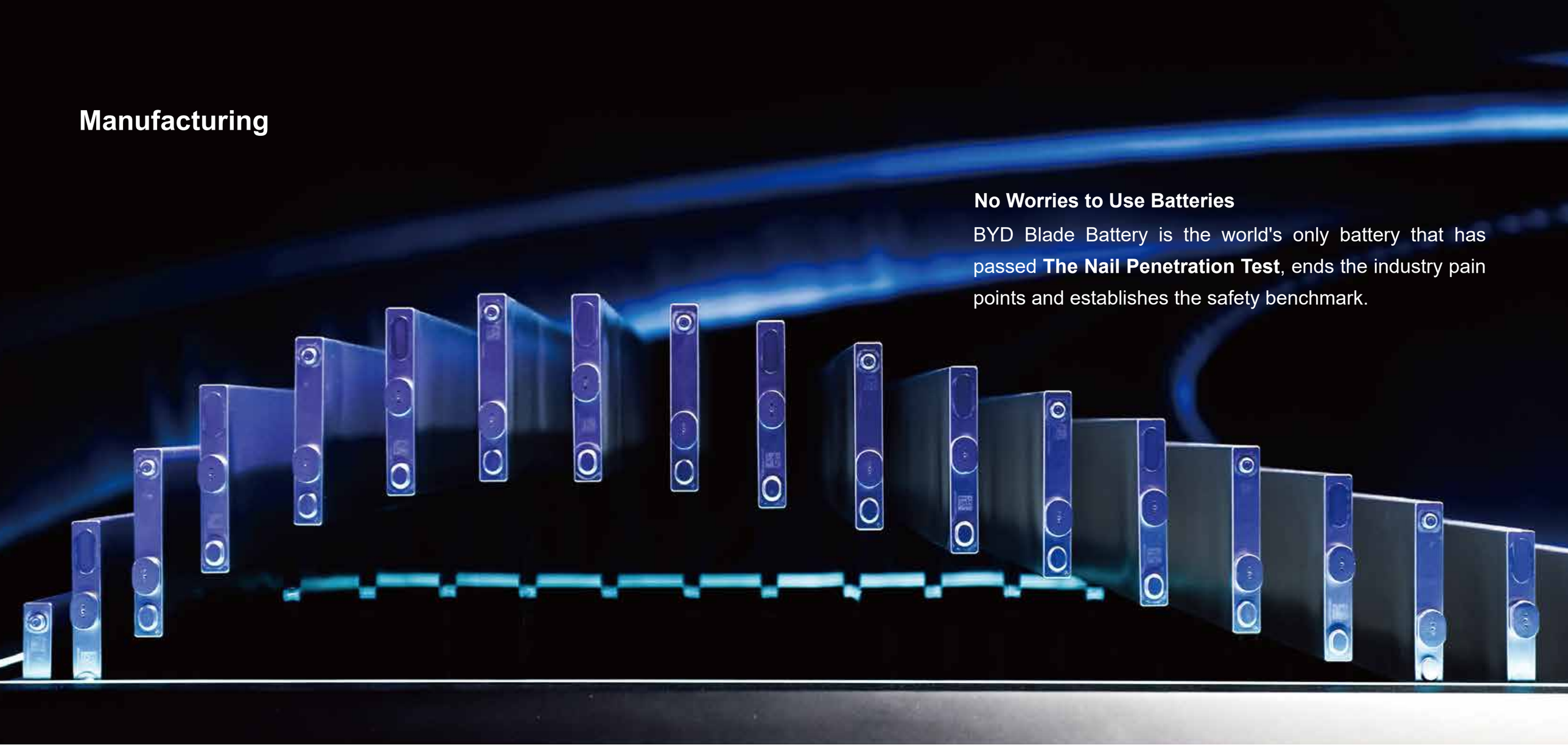
Smart Algorithm

SOX calculation with high precision based on the mass data analysis and smart BMS with the cloud-terminal computing power.

Cloud Fault Diagnosis

System fault diagnosis with one touch, intelligently push the solutions to realize the fast commissioning and maintenance.

Manufacturing



No Worries to Use Batteries

BYD Blade Battery is the world's only battery that has passed **The Nail Penetration Test**, ends the industry pain points and establishes the safety benchmark.

Ultra Safety & Ingenious Design

Ultra Safety

Intelligent chip control, active and passive protection to deal with various emergencies.

Ultra Low Cost

Compared with the traditional battery pack, the space utilization rate is increased by 20%, and the LCOE is reduced by 30%.

Ultra Long Lifecycle

LFP chemistry, up to 12000 cycles.

Ultra High Strength

Honeycomb-like aluminum plate structure design to ensure structural strength.

Ultra High Energy Density

No-pack design, space saving to realize ultra high energy density.

Ultra Power

Voltage output up to 1500V and peak current up to 238A at full power.

Ultra Low-temperature Performance

Operate efficiently at -30°C and maintain the optimal state.

Manufacturing

Mineral Resources Development	Material R&D & Manufacturing	Technical R&D	Cell R&D & Manufacturing	BMS R&D & Manufacturing	Module R&D & Manufacturing	Energy Storage System R&D & Manufacturing	Recycling & Repurposing

Energy Storage Battery Whole Industry Chain Layout

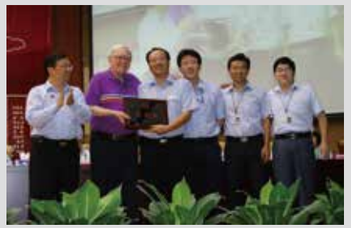
All-round R&D layout of energy storage battery based on the R&D of basic materials, battery performance as the center, and innovative technology-oriented.

Automation **Smart** **Digitization** **One-stop**

Awards & Honors


国家科学技术进步奖
证 书


国家能源科技进步奖
证 书




Certificate of Qualification
This is to certify that
BYD AUTO INDUSTRY COMPANY LIMITED
has been qualified by CSA Group Testing & Certification Inc., as a Testing Facility for
WITNESSED MANUFACTURER'S TESTING FOR CERTIFICATION PROGRAM
Based on ISO/IEC 17025:2005


CERTIFICATE OF PARTICIPATION
UL-CCIC Company Limited on behalf of Underwriters Laboratories Inc.


Certificate of compliance


Certificate of Appointment


ATTESTATION

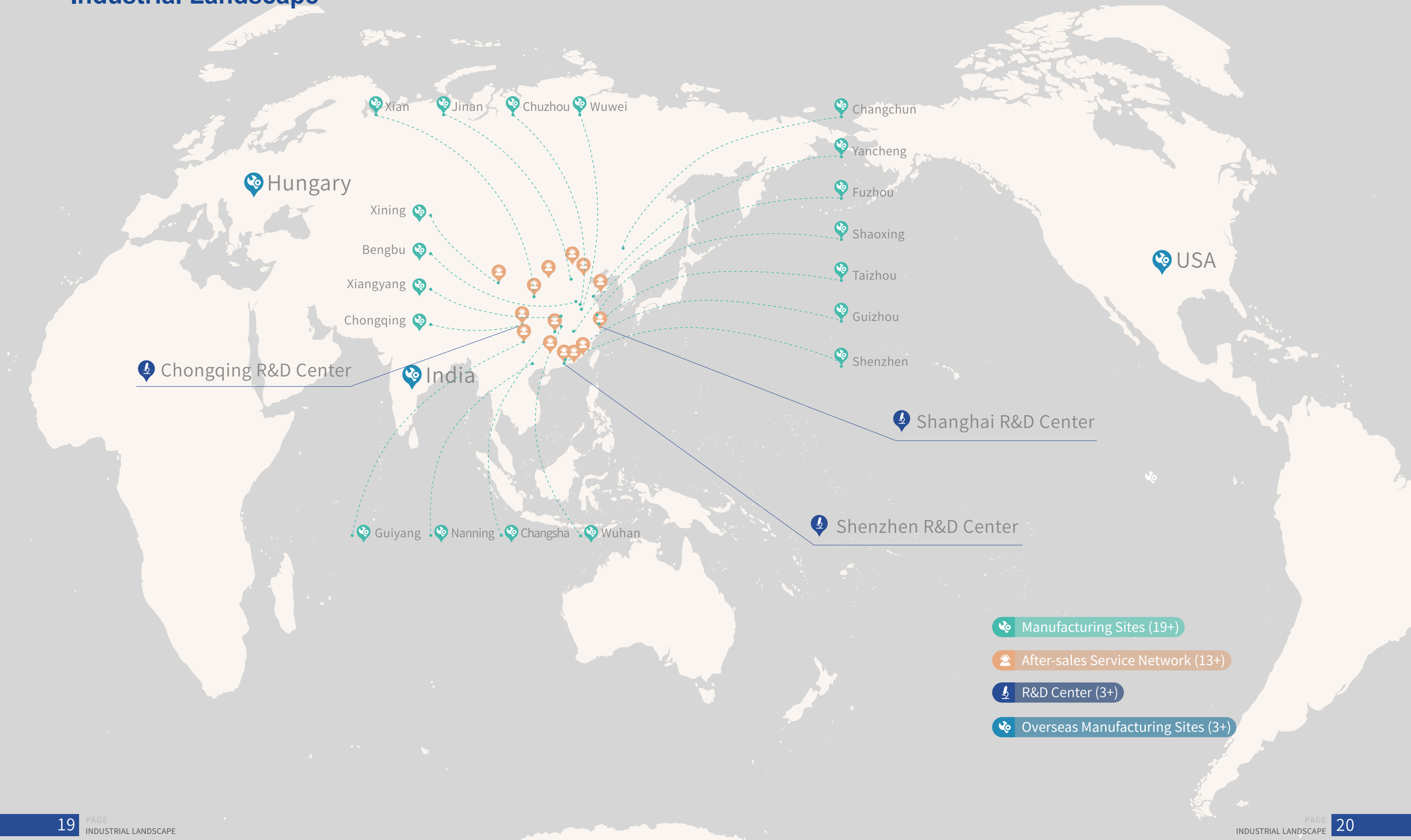

Certificate of Recognition
Registered Manufacturer's Laboratory
VDE


Certificate of Acceptance of Witnessed Laboratory

Cooperation Partners

NEXTera ENERGY
TERRA-GEN
CanadianSolar
ENGIE
DELTA
SMITH brothers CONTRACTING LIMITED
SMS Leading the smart energy revolution
ENOBE
voltalia
国家电网 STATE GRID
中国南方电网 CHINA SOUTHERN POWER GRID
国家电网 STATE GRID 国网湖南综合能源服务有限公司
国家电投 SPIC
中国华能 CHINA HUANENG
中国华电集团公司
中国国电 CHINA GUODIAN
中国电建 POWERCHINA
中广核 CGN
CEEC 中国能建
平高集团 PINGGAO GROUP
GOLDWIND
SGETL 电工时代
大唐集团公司 CHINA DATANG

Industrial Landscape



Four Aspects of Safety

Product Safety

Intrinsically safe, passed pinpricks test

Revenue Security

Powerful, reliable, worry-free warranty

Cell Safety

Blade Battery with super safety, heat dissipation, structural strength and other characteristics

Environmental Safety

Zero-carbon factory, carbon reduction for whole manufacturing process

Three Dimensions of Adaptabilty

All Terrains

Desert

Gobi

Plain

Mountainous Area

Plateau

Seafront

All Scenarios

Grid Following

Grid Forming

Frequency Regulation

Wind and Solar Colocated ESS

Standalone ESS

Residential ESS

C&I ESS

All Climates

Extremely Cold

High Humidity

Severe Sand and Wind

Heavy Rainfall

Extremely Heat

Extremely Drought

Heavy Snowfall

Frequent Thunderstorm

PRODUCTS

03

All-scenario Application Products

MC Cube

Utility-scale Energy Storage Products

MC Cube ESS

Cube Pro

20ft ESS

C&I Energy Storage Products

MC-I

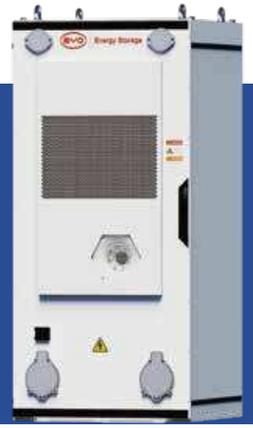
CHESS Pro

Safe & Reliable
Green Development

MC Cube

MC-B536-E/U-R4M01
MC-B466-E/U-R2M01

World's first BESS using the Blade Battery, highly integrated with ultra high energy density.



SYSTEM FEATURES

Safe & Reliable

Passed 10+ destructive tests such as short-circuit, vibration, fire exposure. Four-level active and passive protection

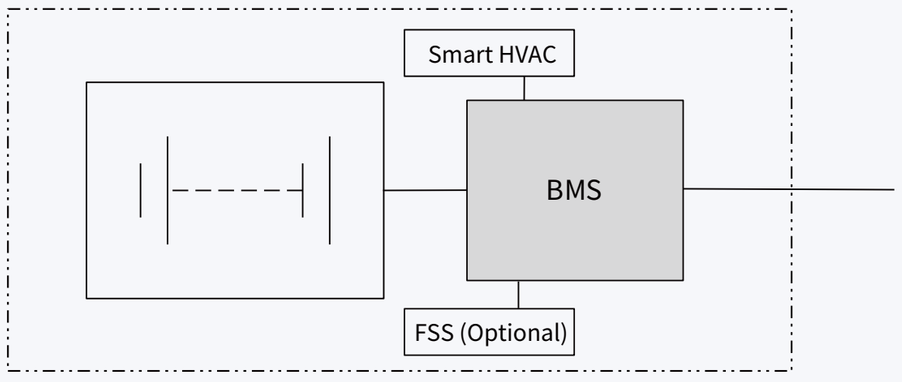
Flexible & Configurable

Compliant with global energy storage standards, quick connector design to save the time, flexible augmentation, possible for mixed use of new and old batteries

Cost-efficient & Smart

Maximized the overall energy density, space saving; interconnected with the cloud system for the real-time monitoring

CIRCUIT DIAGRAM



System Parameters

System Type	MC-B536-E/U-R4M01	MC-B466-E/U-R2M01
DC Side		
Cell Type	LFP	LFP
String Type	1P416S	1P416S
System Configuration	1×1P416S	1×1P416S
Battery Capacity (BOL)	536kWh	466kWh
DC Usable Energy (BOL)@FAT	515kWh	447kWh
DC Usable Energy (BOL)@SAT	500kWh	434kWh
Battery Voltage Range	1081.6 ~ 1497.6V	1081.6 ~ 1497.6V
Nominal Power	125kW	217kW
General Parameters		
Dimensions (W×D×H)	1130×1203×2521mm	1130×1203×2521mm
Weight	≈3784kg	≈3817kg
IP Rating	IP55	IP55
Operating Ambient Temperature	-30℃~+55℃ [1]	-30℃~+55℃ [1]
Relative Humidity	5%~100%	5%~100%
Max. Working Altitude	< 2000m [2]	< 2000m [2]
Cooling Concept	Smart Air Cooling	Liquid Cooling
Noise	≤75dB(A)	≤75dB(A)
Fire Suppression System	With Fire Detection and Alarm System. Aerosol is Optional.	
Communication Interfaces	CAN	CAN
Communication Protocols	OD	OD
Standard Color	RAL 9003	RAL 9003
Compatible with Mainstream Certifications Globally	IEC 62619, GB/T 36276, GB/T 34131, UL 9540, UL 9540A, UL 1973, NFPA 69, NFPA 72, NFPA 855, CFC, UN 38.3, UN 3536, CE Marking;	

Note:
[1] Power derating is performed when the ambient temperature is below -15℃ or above +45℃.
[2] When the altitude is > 2000m, the system will be derated.

MC Cube ESS

MC10C-B5365-E/U-R4M01
MC-B4659-E/U-R2M01

World's first BESS using the Blade Battery, highly integrated with ultra high energy density, flexible configuration and easy for transportation, layout, installation, augmentation and maintenance.

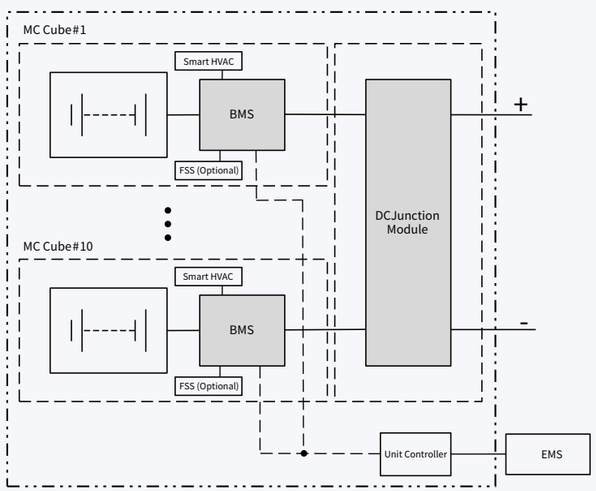
SYSTEM FEATURES

Professional & Smart
Automotive-standard cooling system/electronic control system, cloud-terminal smart battery management algorithm.

Ultra High Safety
UL9540A test certified.

Reliable & Stable
Extreme battery strength, long lifecycle. Cloud service with intelligent over-the-air upgrade.

CIRCUIT DIAGRAM



SYSTEM PARAMETERS

System Type	MC10C-B5365-E/U-R4M01	MC-B4659-E/U-R2M01
DC Side		
Cell Type	LFP	LFP
String Type	1P416S	1P416S
System Configuration	10×1P416S	10×1P416S
Battery Capacity (BOL))	5365kWh	4659kWh
DC Usable Energy(BOL)@FAT	5099kWh	4428kWh
DC Usable Energy (BOL)@SAT	4946kWh	4295kWh
Battery Voltage Range	1081.6 ~ 1497.6V	1081.6 ~ 1497.6V
Nominal Power	1236kW	2147kW
General Parameters		
Dimensions(W×D×H)	6058×2438×2896mm	6058×2438×2896mm
Weight	≈41035kg	≈41385kg
IP Rating	IP55	IP55
Operating Ambient Temperature	-30℃~+55℃ [1]	-30℃~+55℃ [1]
Relative Humidity	5%~100%	5%~100%
Max. Working Altitude	< 2000m [2]	< 2000m [2]
Cooling Concept	Smart Air Cooling	Liquid Cooling
Noise	≤75dB(A)	≤75dB(A)
Fire Suppression System	With Fire Detection and Alarm System. Gas/Water/Aerosol are Optional.	
Communication Interfaces	Ethernet	Ethernet
Communication Protocols	Modbus TCP/IP	Modbus TCP/IP
Standard Color	RAL 9003	RAL 9003
Compatible with Mainstream Certifications Globally	IEC 62619, GB/T 36276, GB/T 34131, UL 9540, UL 9540A, UL 1973, NFPA 69, NFPA 72, NFPA 855, CFC, UN 38.3, UN 3536, CE Marking;	

Note:
[1] Power derating is performed when the ambient temperature is below -15℃ or above +45°C.
[2] When the altitude is > 2000m, the system will be derated.

Cube Pro

CP36-B2800-E-R1M01 & CP32-B2800-E-R2M01 & CP32-B3000-E-R4M01
CP32-B2800-U-R4M02/WVR & CP32-B2800-U-R4M02/WVR

Top-tier liquid cooling battery energy storage system that has passed UL9540A and IEC62619 tests right from the start.

SYSTEM FEATURES

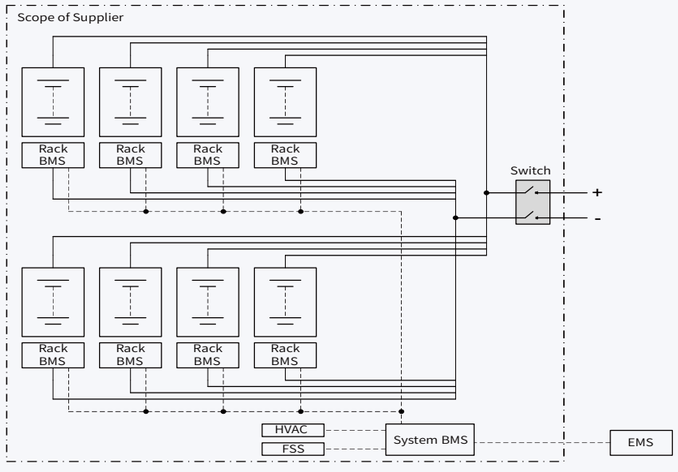
Small Space & High Energy Density
Compact mechanical design, minimized footprint.

Liquid Cooling & Stable System
Equipped with an efficient and reliable liquid cooling system, the battery temperature difference is less than 3°C during operation.

Advanced Technology & Efficient and Safe
Using the advanced LFP batteries, longer service life. Equipped with FSS to ensure safe operation.

Highly Integrated & Easy for Installation
Highly integrated system, all-in-one design, integrated local controller, HVAC and FSS, easy for installation and transportation.

CIRCUIT DIAGRAM



SYSTEM PARAMETERS

System Type	CP36-B2800-E-R1M01	CP32-B2800-E-R2M01 CP32-B2800-U-R2M02 WVR	CP32-B3000-E-R4M01	CP32-B2800-U-R4M02/WVR
DC Side				
Cell Type	LFP C15	LFP C15	LFP C15	LFP C15
Pack Type	1P114S	1P114S	1P114S	1P114S
Rack Size	1P228S (2 packs)	1P342S (3 packs)	1P342S (3 packs)	1P342S (3 packs)
System Configuration	12×1P228S	8×1P342S	8×1P342S	8×1P342S
Battery Capacity (BOL)	2800kWh	2800kWh	3000kWh	2800kWh
DC Usable Energy (BOL)@SAT	2560kWh	2590kWh	2835kWh	2610kWh
Battery Voltage Range	638.4~820.8V	934~1231.2V	934~1231.2V	934~1231.2V
Nominal Power	2430kW	1245kW	625kW	625kW
General Parameters				
Dimensions (W×D×H)	11000×1700×2645mm	9800×1700×2645mm	9800×1700×2645mm	9800×1700×2645mm
Weight	≈31000kg	≈29500kg	≈29000kg	≈29000kg
IP Rating	IP55	IP55	IP55	IP55
Operating Ambient Temperature	-30℃~+55℃ [1]	-30℃~+55℃ [1]	-30℃~+55℃ [1]	-30℃~+55℃ [1]
Relative Humidity	5%~100%	5%~100%	5%~100%	5%~100%
Max. Working Altitude	< 3000m [2]	< 3000m [2]	< 3000m [2]	< 3000m [2]
Cooling Concept	Liquid Cooling	Liquid Cooling	Liquid Cooling	Liquid Cooling
Noise	≤80dB(A)@1m	≤75dB(A)@1m	≤75dB(A)@1m	≤75dB(A)@1m
Fire Suppression System	NOVEC1230/FM200 Gas Fire Suppression System and Water Fire Pipeline Reserved			
Aux. Power Interface	AC400V 50Hz / AC480V 60Hz, 3-phase 4-wire			
Aux. System Peak Power Requirement @45℃, PF0.8	50.70kW	32.70kW	11.60kW	11.60kW
Communication Interfaces	Ethernet	Ethernet	Ethernet	Ethernet
Communication Protocols	Modbus TCP/IP	Modbus TCP/IP	Modbus TCP/IP	Modbus TCP/IP
Standard Color	RAL 9003	RAL 9003	RAL 9003	RAL 9003
Compliance	UN 38.3, UN 3536, UL 9540, UL 9540A, UL 1973, UL 1642, IEC 62619, UKCA, IEC 63056, CE Marking			

Note:
[1] Power derating is performed when the ambient temperature is below -15°C or above +40°C.
[2] When the altitude is between 2000 and 3000m, the output of the system will be derated.

20ft ESS CS20H-B3168-E/U-R2M01 CS20H-B2982-E/U-R1M01

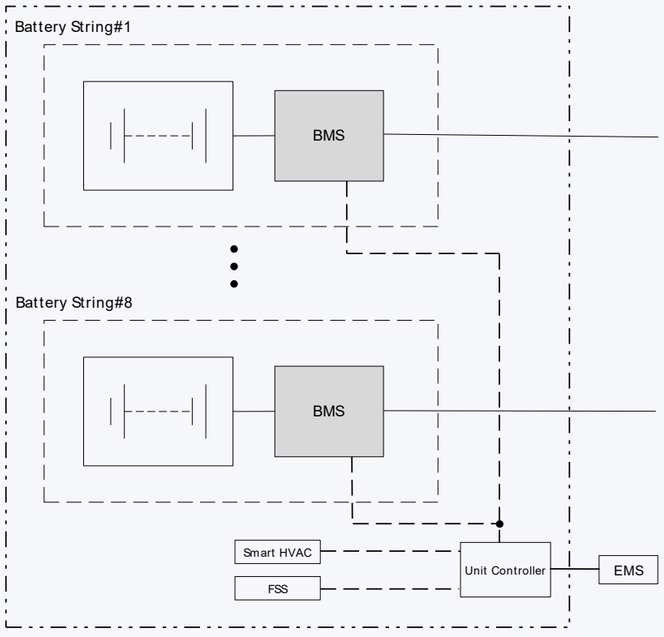
Standard 20ft container design, 1/2/8 channel output supported, applicable in 1C/0.5C scenarios, fully compatible with diversing PCS, minimize the maintenance space.

SYSTEM FEATURES

Lower Shipping Cost
20 feet standard container size.
Weight less than 35t.

Flexible Configuration
8 strings of batteries can be independently output.
Centralized combined application is also available.

CIRCUIT DIAGRAM



SYSTEM PARAMETERS

System Type	CS20H-B3168-E/U-R2M01	CS20H-B2982-E/U-R1M01
DC Data		
Cell Type	LFP C15-340Ah	LFP C15-320Ah
Pack Type	1P52S	1P52S
Rack Size	1P364S (7 Packs)	1P364S (7 Packs)
System Configuration	8× 1P364S	8 × 1P364S
Battery Capacity (BOL)	3168kWh	2982kWh
DC Usable Energy (BOL) @FAT	2946kWh	2713kWh
DC Usable Energy (BOL) @SAT	2857kWh	2631kWh
Battery Voltage Range	946.4 ~ 1310.4V	946.4 ~ 1310.4V
Nominal Power	1428.5kW	2631kW
General Data		
Cabinet Type	Standard HQ	Standard HQ
Dimension (W×D×H)	6058×2438×2896mm	6058×2438×2896mm
Weight	< 35T	< 35T
IP Rating	IP55	IP55
Anti-Corrosion Grade	C4	C4
Operating Ambient Temperature	-30℃ ~ +55℃ [1]	-30℃ ~ +55℃ [1]
Relative Humidity	5% ~ 100%	5% ~ 100%
Max. Working Altitude	< 2000m[2]	< 2000m[2]
Cooling Concept	Liquid Cooling	Liquid Cooling
Noise	≤75dBA	≤75dBA
Fire Suppression System	NOVEC1230/FM200/Water Sprinkler System [3]	
Auxiliary System Nominal Power	27kW	52kW
Auxiliary System Voltage	AC400V 50Hz / AC480V 60Hz	
Auxiliary System Wiring	3P4W	3P4W
Auxiliary System Peak Power Requirement @45℃, PF=0.8	33.75kVA	65kVA
Communication Interfaces	Ethernet	Ethernet
Communication Protocols	Modbus TCP/IP	Modbus TCP/IP
Standard Color	RAL 9003	RAL 9003
Compatible with Mainstream Certifications Globally	IEC 62619, IEC 63056, UL 9540A, UL 9540, UL 1973, UN 38.3, UN 3536, UKCA, CE Marking;	

Note:
[1] Power derating is performed when the ambient temperature is below -15°C or above +40°C.
[2] When the altitude is > 2000m, the system will be derated.
[3] NOVEC1230/FM200/Water Sprinkler System are optional.

MC-I

MC-P200B466-E/U-R2M01
MC-P200B932-E/U-R4M01

Extremely safe, highly integrated, convenient, flexible, and cost-effective.

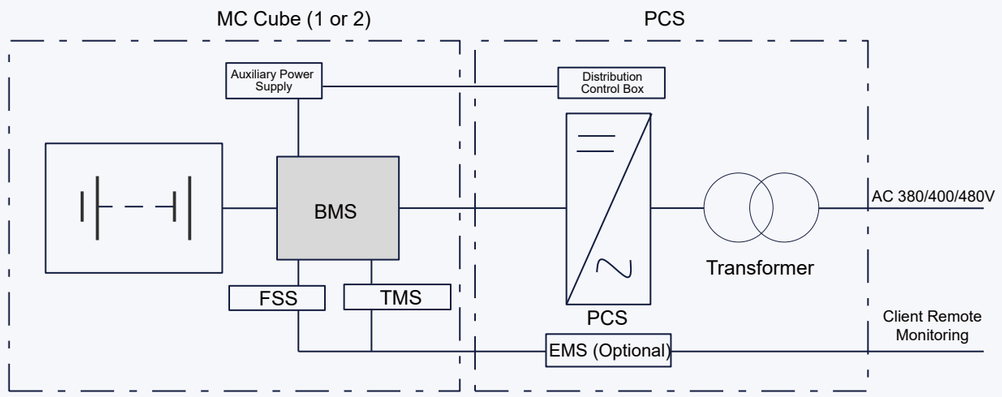
SYSTEM FEATURES

High Energy Density
Compact mechanical design, minimized footprint.

Highly Integrated
Highly integrated system to allow flexible transportation and on-site installation.
All-In-one design, integrated with PCS, local controller, HVAC and FSS to ensure system safety.

Safe & Long Lifecycle
Highly efficient system with safe and long lifecycle LFP battery.

CIRCUIT DIAGRAM



System Parameter

System Type	MC-P200B466-E/U-R2M01	MC-P200B932-E/U-R4M01
DC Data		
Cell Type	LFP	LFP
Cell Capacity	350Ah	350Ah
System Configuration	1P416S	(1P416S)*2
Battery Capacity (BOL)	466kWh	932kWh
Depth of Discharge(DoD)	100%	100%
Battery Voltage Range	1331.2V (1081.6～1497.6V)	1331.2V (1081.6~1497.6V)
Cooling Concept	Liquid Cooling	Liquid cooling
AC Data		
Nominal Power	200kW	200kW
Max. THD of Current (@Nominal Power)	<3%	<3%
Power Factor	-0.95~0.95	-0.95~0.95
Nominal Grid Voltage (Voltage Range)	380V(323～418V) / 400V(340～440V) / 480V(408～528V)	
Nominal Grid Frequency (Grid Frequency Range)	50Hz(45-55Hz) / 60Hz(55-65Hz)	
Isolation Method	Isolation Transformer	Isolation transformer
System Data		
IP Rating	IP54	IP54
Dimensions (W×D×H)	≈2240×1238×2774mm	≈3360×1238×2774mm
Weight	~6000kg	~10000kg
Ambient Operating Temperature	-25℃～+55℃ [1]	-25℃~+55℃ [1]
Relative Humidity	5%～100%	5%~100%
Max. Working Altitude	＜2000m [2]	<2000m [2]
Noise	≤75dB(A)@1m	≤75dB(A)@1m
Fire Suppression System	Aerosol	Aerosol
Aux. Interface	AC380V/400V 50Hz / AC480V 60Hz / 3-phase 4-wire	
Aux. System Peak Power Requirement @45℃ ,PF0.8	~8.0kVA	~15kVA
Communication Interfaces	Ethernet	Ethernet
Communication Protocols	Modbus TCP	Modbus TCP
Compatible with Mainstream Certifications Globally	Battery: IEC 62619, GB/T 36276, GB/T 34131, UL 1973, UL9540, UL 9540A PCS: IEC/EN 62477, IEC/EN 61000, GB/T 34120, GB/T 34133, GB/T 36547, UL 1741 SA, G99	

Note:
[1] Power derating is performed when the ambient temperature is below -15℃ or above +45℃.
[2] Power derating is performed when the altitude is between 2000-3000m.

CHESS Pro XC-B233-E/U-R1M01

Battery energy storage system for storage and charging, suitable for all kinds of EV charging and battery swap stations.

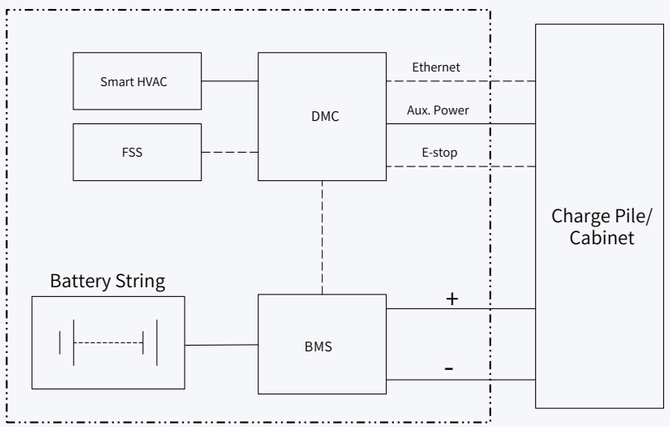
SYSTEM FEATURES

Liquid Cooling & Excellent Performance
Using liquid cooling technology, cell-level intelligent temperature control ensures smooth operation. Ultra-long lifecycle, product performance is greatly improved.

Highly Integrated & Safe and Reliable
Integrated HVAC, FSS and BMS to monitor the operation status in real time in an all-round way, making it more efficient and reliable.

Efficient fast charging & Wide range of applications
Efficient charging and fast discharging, applicable to high-power fast-charging scenarios for electric vehicles. Simple and streamlined scalable design for extensive application scenarios.

CIRCUIT DIAGRAM



SYSTEM PARAMETERS

System Type	XC-B233-E/U-R1M01
DC Side	
Cell Type	LFP
Cell Capacity	320Ah
Pack Type	1P57S
String Type	1P228S (4 battery packs)
System Configuration	1P228S
Battery Nominal Capacity (BOL)	233kWh
DC Usable Energy (BOL)@FAT	215kWh
DC Usable Energy (BOL) @SAT (within 3 months after FAT)	208kWh
Battery Voltage Range	729.6V (592.8~820.8V)
Nominal Charge/Discharge Power	100kW/200kW
General Parameters	
Dimensions (W×D×H)	~1500×800×2250mm
Weight	~2600kg
IP Rating	IP54(Electrical Parts); IP65(Battery Parts)
Operating Ambient Temperature	-25°C~+55°C [1]
Relative Humidity	5%~95%
Max. Working Altitude	3000m
Cooling Concept	liquid Cooling
Noise	≤75dB(A)@1m
Fire Suppression System	Aerosol
Compatible with Mainstream Power Interface	AC 220/230/240V 50/60Hz
Aux. System Peak Power Requirement @45℃	5kW
Communication Interfaces	Ethernet
Communication Protocols	Modbus TCP/IP
Compatible with Mainstream Certifications Globally	GB/T 36276, IEC 62619, UL1642, UL1973, UL 9540A, UN38.3, CE Marking;
Standard Color	Front: MD458-3JA0-0; Side: RAL9011

Note:
[1] Power derating is performed when the ambient temperature is above 45℃.

PROJECT CASES

04

Project Cases


Location: US
Capacity: 375 MW/1,500 MWh
Application: PV+Energy Storage


Location: US
Capacity: 375 MW/1,700 MWh
Application: PV+Energy Storage


Location: US
Capacity: 20 MW/80 MWh
Application: PV + Energy Storage


Location: US
Capacity: 75 MW/300 MWh
Application: PV + Energy Storage


Project Site: CA, U.S.
Project Size: 75 MW/300 MWh
Application: PV+BESS


Project Site: Lowa, U.S.
Project Size: 5 MW/10 MWh
Application: Peak Load Regulation, FR


Location: South Africa
Capacity: 225 MW/1,140 MWh
Application: PV+Energy Storage


Location: Yinchuan, Ningxia
Capacity: 100 MW/200 MWh
Application: Shared Energy Storage


Location: Chenzhou, Hunan
Capacity: 100 MW/200 MWh
Application: Summer Peak Shaving and Load Shifting


Location: China
Capacity: 60 MW/120 MWh
Application: Wind + Energy Storage


Location: Wuzhou, Guangxi
Capacity: 101 MW/202 MWh
Application: Wind + Energy Storage

Project Cases

Location: China
Capacity: 300 MW/1,200 MWh
Application: Wind + Energy Storage

Location: China (elevation 5100 m)
Capacity: 10 MW/40 MWh
Application: PV+Energy Storage

Location: Huaihua, Hunan
Capacity: 100 MW/200 MWh
Application: Shared Energy Storage

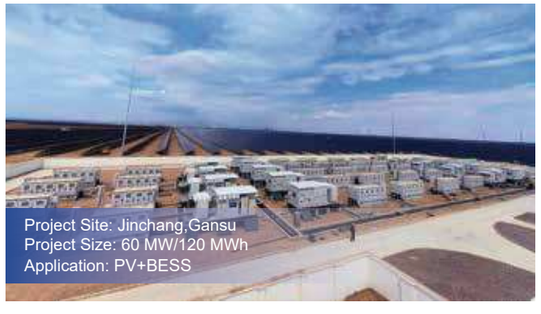
Location: Leiyang , Hunan
Capacity: 200 MW/400 MWh
Application: Peak Shifting, Black Start

Location: China (elevation 4500 m)
Capacity: 30 MW/120 MWh
Application: PV smoothing; Peak Shaving; Planned Power Generation;

Location: Yinchuan, Ningxia
Capacity: 200 MW/400 MWh
Application: Shared Energy Storage

Project Site: Yueyang,Hunan
Project Size: 100 MW/200 MWh
Application: Peak Load Regulation, FR

Project Site: Chongqing
Project Size: 100 MW/200 MWh
Application: Peak Load Regulation, FR



Project Site: Jinchang,Gansu
Project Size: 60 MW/120 MWh
Application: PV+BESS

Location: Chongqing
Capacity: 100 MW/200 MWh
Application: Load Shifting

SERVICE

05

AFTER-SALE SERVICE

BATTERY RECYCLING

Professional | Efficient | Responsible

After-sale Service

SERVICE CONCEPT

Excelsior ... Vigorous+ Resolute ... Meticulous

WHOLE PROCESS SERVICE GUARANTEE SYSTEM

1. **Five Star Services Return on Investment Measurement**
   Manufacturing + O&M + Recycling data for the whole industry chain, provide clients with authoritative project investment calculations
2. **Customized Solutions**
   Provide customers with professional customized application-specific solutions
3. **Production & Delivery Guarantee**
   100+ GWh energy storage system and 600+ GWh battery cell manufacture capacity, no worry for timing
4. **Global After-sale Service**
   After-sale service network covering continents with immediate response capability

Battery Recycling

RECYCLING PROCESS

Test → Discharge → Battery Pack Disassembly → Cell Crush → Sorting → Hydrometallurgy Recycling → Anode & Cathode Materials

INDUSTRIALIZATION

- **Scale Advantage** — Complete Industrialization of Recycling Process
- **Smart Manufacturing** — MES Smart Informatization Management for Full Automatic Production
- **Cost Reduction** — Partition Layout to Reduce Transportation Cost