



GLOBAL POWER TECHNOLOGY

Rechargeable Li-ion Battery System

(MegaCool-E3086-JZ 1228,8V 2512Ah 3086kwh)



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Rechargeable Li-ion Battery System (MegaCool-E3086-JZ 1228,8V 2512Ah 3086kWh), a high-performance, all-in-one, containerized battery energy storage system developed, provides C&I users with the intelligent and reliable solution to optimize energy efficiency and resilience. As the leading BESS product, MegaCool-E3086-JZ is certificated by UN3536, IEC62619, CE, UN38.3, provides secure, reliable and safe power supply.

Rechargeable Li-ion Battery System (MegaCool-E3086-JZ 1228,8V 2512Ah 3086kWh), with capacity of 3,086kWh@20ft, is ideal for mostly utility and C&I applications, such as renewable energy power plant supplement, factories, buildings, etc. The integrated and easy-to-install BESS can be easily connected and matched with the equipment, while the advanced BMS and cloud-based operation platforms bring superior interaction experience for users.

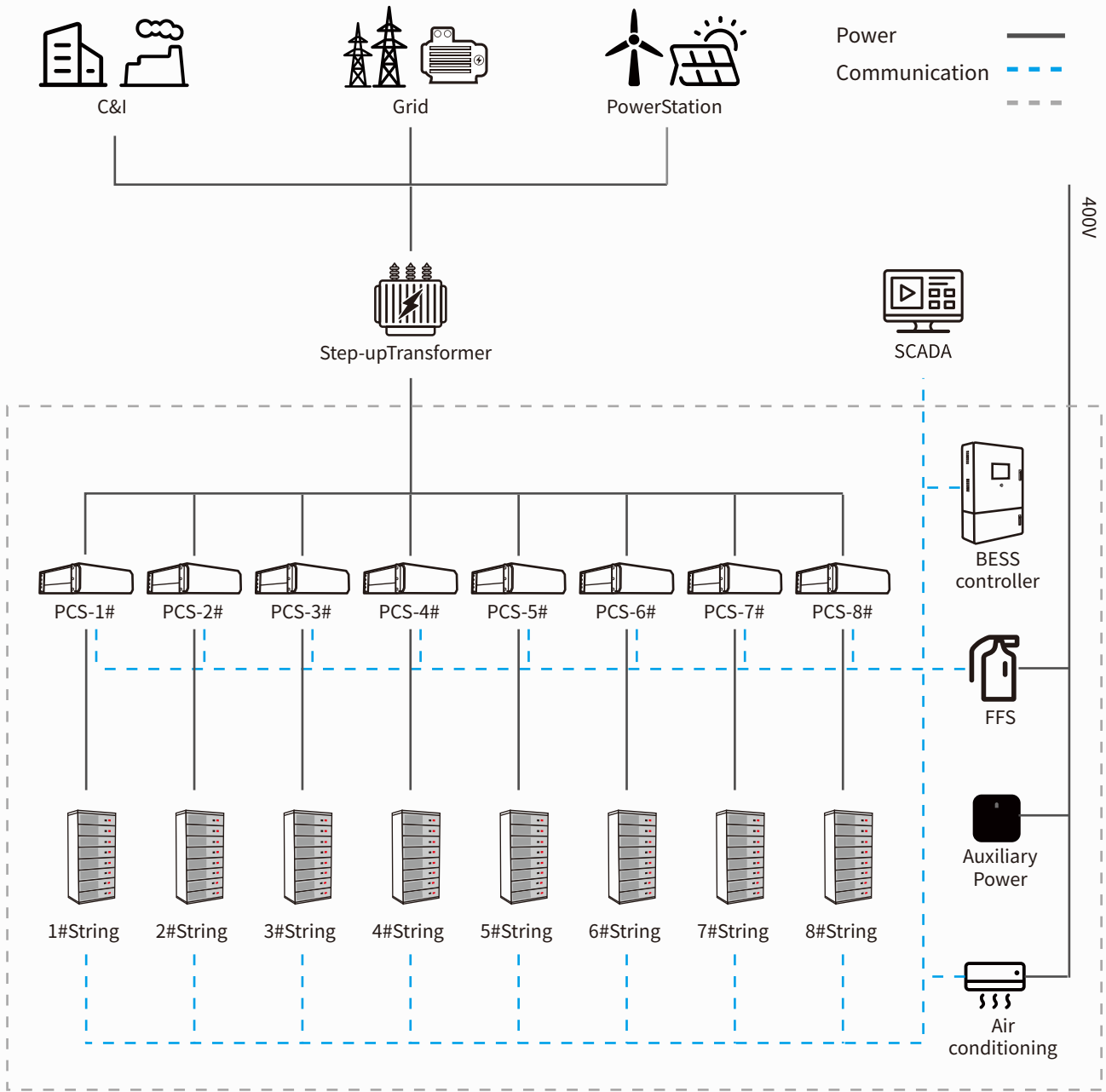


Application Areas

- Smooth New Energy Output
- Voltage, Frequency Support, Frequency Modulation
- Peak Valley Arbitrage
- Dem and Management
- Construction of Microgrid



System Topology

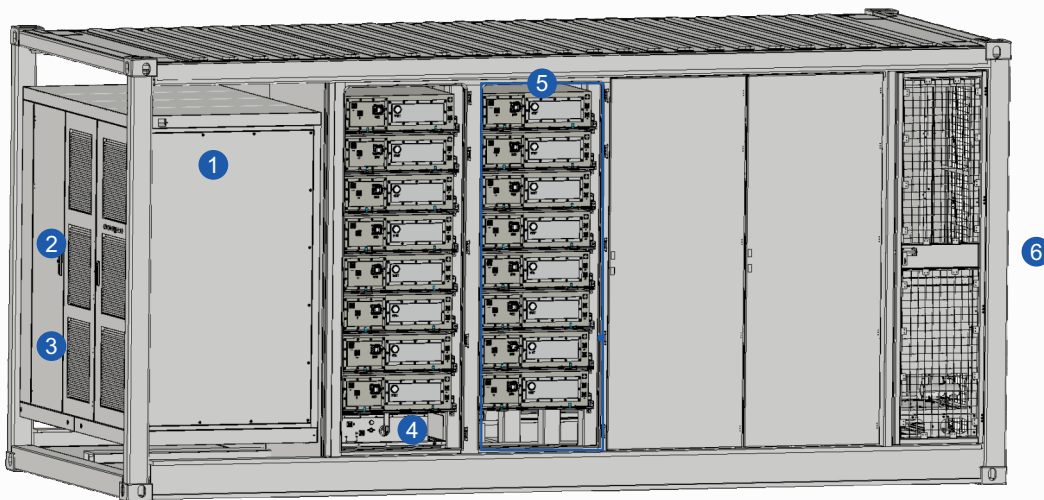
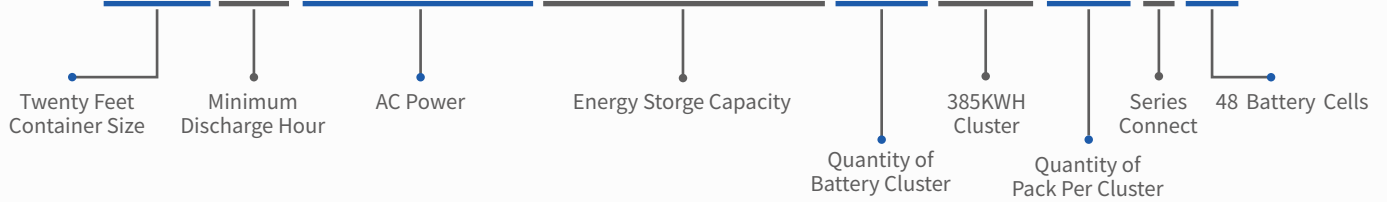


MoreEnergy	All-in-oneDesign	SimpleO&M	Safe&Reliable
Pack-level Optimization String-level Optimization	AC/DCAI-in-one Design Reducing Initial Investment	No periodic balancing No experts site visit	Modular Design High Availability

Product Layout

Product Model Definition

20F2H1500KW3086KWH-8C385-8PS48



- 1 PCS (String Type Inverter)
- 2 BESS Controller
- 3 FFS (Fire Fighting system)
- 4 HVU
- 5 Battery Cluster
- 6 Liquid Cooling System

System Technical Specifications

Item	20C2H1500
DC Data	
Battery chemistry	Lithium Iron Phosphate (LFP)
Cell life cycle	70% Retention with 8000 Cycles @0.5C 25°C
Cell specification	3.2V314Ah
String conguration	1P384S
Number of strings	8
DC rated energy capacity	3,086 kWh
Rated voltage	1228.8V
Voltage range	1075.2V-1363.2V
BMS communication interface	Rs485, Ethernet
BMS communication protocol	CAN,TCP/IP
AC Data	
Rated AC Power	1725kW
Maximum AC power	1898kW
Rated voltage	AC 690V
Grid voltage range	690(-15%~10%)V
AC frequency	50/60(-5~5)Hz
Output THDi	<3% (rated output power)
AC PF	0.99/-1~+1
AC output	3W+PE
General Data	
Dimension w/o clearances (L*W*H)	Container size 6058x2438x2896mm
Weight of the whole system	≤35t
Degree of protection	Ip55
Operating temperature range	-20~50°C (Max.-30~55°C)
Relative humidity	0~95°C (non-condensing)
Max working altitude	≤2000 m.a.s.l.
Cooling concept of DC hatch	Liquid cooling
Fire fighting system	aerosol + water
Communication interfaces	Modbus
certificate	IEC62619、IEC63056、CE、UN38.3、IEC61000-6-2/4、UL1973、UL9540A

Key Components

Battery String-MCP385

- 0.5C Charge/Discharge;
- Power supply can be single battery string or parallel battery strings;
- Easy configuration and maintenance.



Item	Data
Battery module	C385
Pack QTY	8
Rated capacity	385.8 kWh
Rated voltage	1,228.8V
DC voltage range	1075,2V~1363.2V
Pack	153.6V/314Ah@1P48S
Communication	Ethernet, CAN, Rs485
Lifespan	>6,000cycles@0.5C,25°C
Dimensions (W×D×H)	944x1102x2600mm
Weight	2800±40kg
Certifications	IEC62619、IEC63056、IEC61000-6-2/4、UL1973、UL9540A

GridPoint Controller (GPC)

- All-round signal collection;
- Comprehensive logical control;
- Multilevel electric & control protection;
- Intelligentize Communication management;
- Simple Configuration.



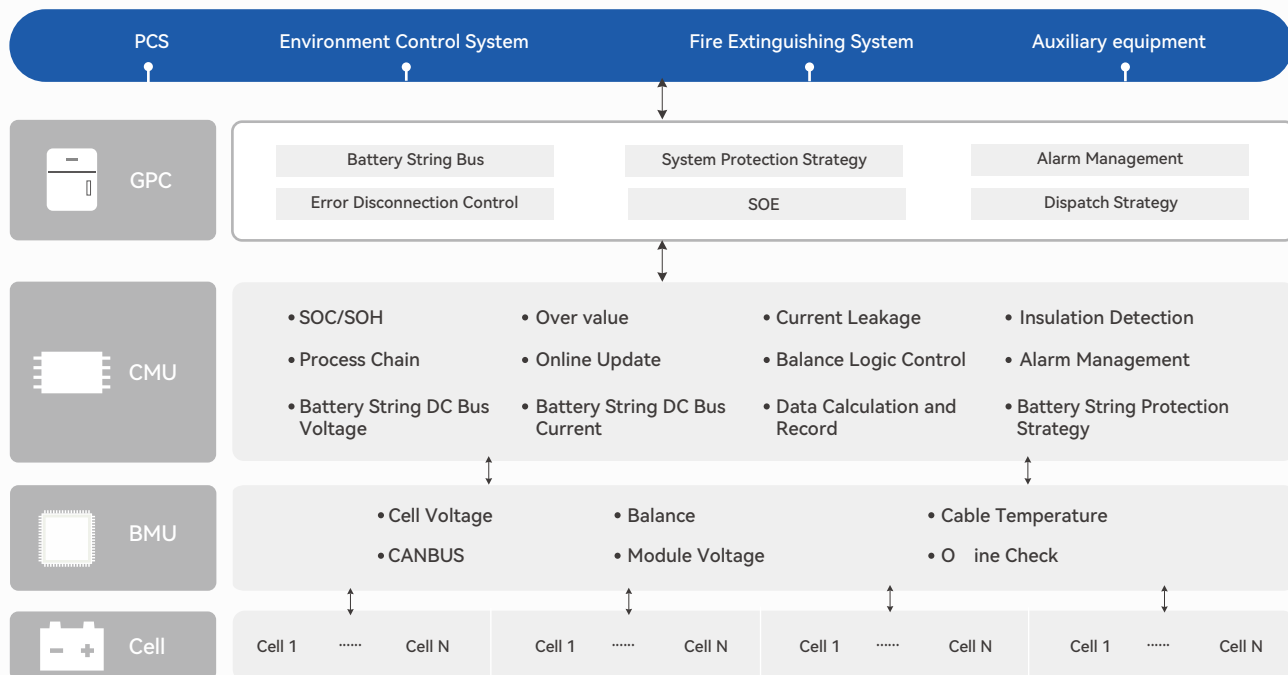
Item	Data
Power interface	AC400V/DC24V
Communication	Modbus RTU、Modbus TCP
Relay	24 stem node input/output
Grid control application	Time-of-use, Peak shaving, Renewable smoothing

Power Conversion System



Product Model	
DC parameters	
DC voltage range	1000~1500V
Maximum DC current	1664A
Numbers of DC branches	1/8
Utility-interactive Mode	
Nominal AC power	1725kVA
AC voltage	690V(-15%~10%)
AC frequency	50/60(-5~5)Hz
Overload Capability	1898kVA
Output THDi	≤3%
Voltage regulation accuracy	±1%
Stand-alone Mode	
AC voltage	690V(-15%~10%)
AC frequency	50/60(-5~5)Hz
Power Factor	0.99/-1~1
System parameters	
Peak efficiency	98.5%
AC connection	3-Phase 3-Wire
Isolation	Non-isolation
Cooling	Forced air cooling
Noise	< 75dB
Operating temperature	-20°C~60°C(De-rating over45°C)
Protection	IP54
Max elevation	3000m(De-rating over 3000 m)
Humidity	0~95%
Size (W×D×H)	2200*1300*2160 mm
Weight	2200kg
Connection parameters	
Communication protocol	Modbus TCP/RTU, IEC104
Communication interface	RS485,Ethernet, CAN
BMS	Support

BMS with Real-time Active Balance



BMU		CMU	
Cell Voltage Measurement Accuracy	±2.5 mV	Battery String Voltage Measurement Range	100~1,500V
Cell Voltage Monitoring Interval	≤500ms	Battery String Voltage Measurement Accuracy	±1%
Cell Temperature Measurement Accuracy	±2°C	Battery String Voltage Monitoring Interval	≤200ms
Cell Temperature Measurement Interval	≤3s	Battery String Current Measurement Range	±300A
Cell Current Balance	Balance, 5A 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



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