

Commercial & Industrial **BESS** Solution Provider

Yuyang New Energy Co.,Ltd



ELFBULB, BESS Solution Provider

Yuyang New Energy Co., Ltd is a high-tech enterprise set up in 2010 and focus on R&D, manufacture, and sales of LifePo4 rechargeable lithium energy storage batteries. With a sales & customer service center in Shenzhen, and production factory in Dongguan covering an area of over 30,000 sqm, we are committed to the development and application of renewable energy.

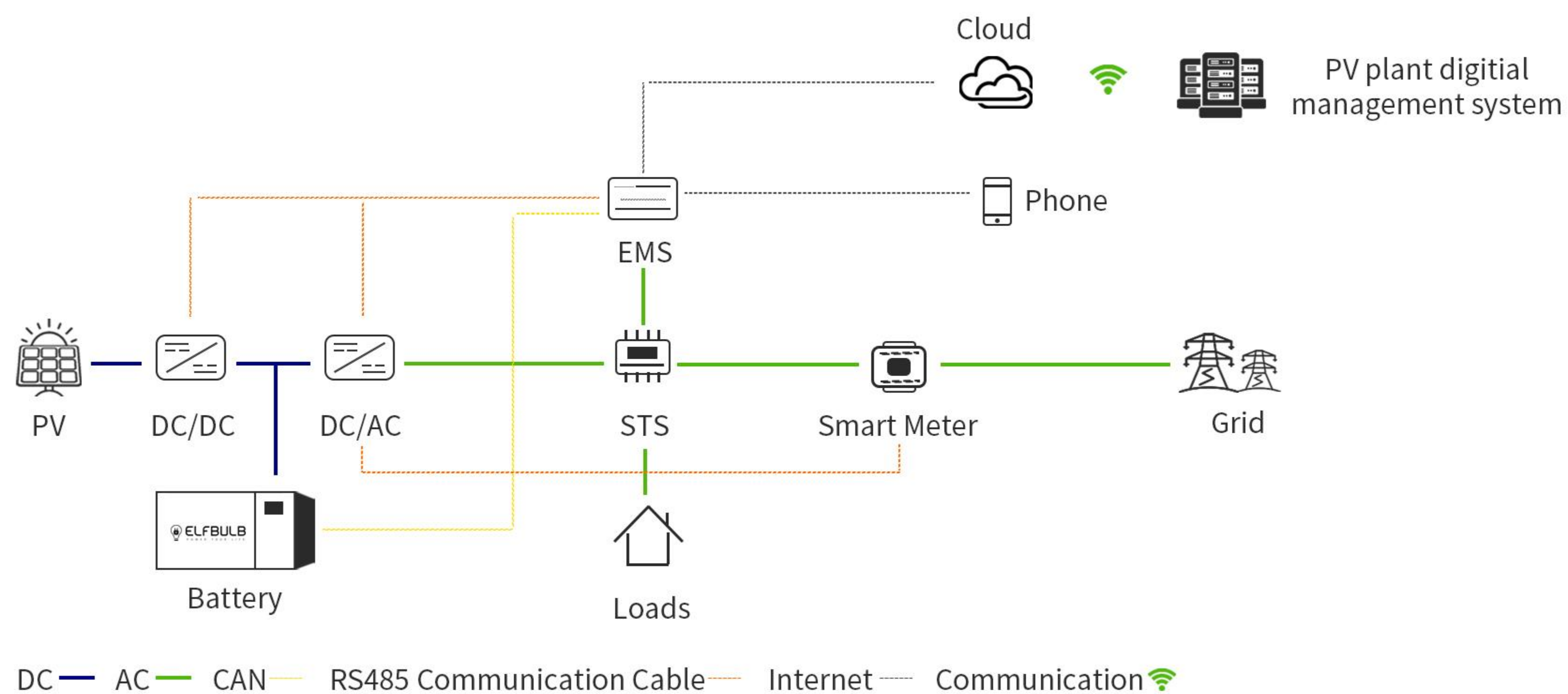
We have over 200 production workers, and the export of our factory in 2022 exceeded 70 million US dollars. Our main product category includes home energy storage series, commercial & industrial use big capacity energy storage container systems, and low speed vehicle batteries. Under the home use energy storage category, we have wall mounted type storage batteries, stackable type batteries, and battery & inverter 2in1 systems to cover from 5KWH to 50KWH, with low voltage and high voltage options; Under the commercial & industry category, we have high voltage battery cabinets covering from 50-100KWH and all in one ESS covering 200KWH-2000KWH. Under the low speed vehicle batteries, our battery covers the use of golf cart, speedboat, forklift, etc.

As a scaled and professional LifePO4 lithium energy storage battery manufacturer, we have close cooperation with reputed cell brands including BYD, CATL, GOTION, EVE, REPT, Sunwoda, Gotion and so on. The production capacity of our factory can reach 20,000 units various battery packs monthly, and in order to assure the stable supply to our valued customers we retain a safety stock of 8 million USD for battery cells. Our company has obtained ISO9001: 2008 quality management system and ISO14001: 2004 environmental quality system certifications. All our exported products have got CE certification and passed China customs authoritative testing.

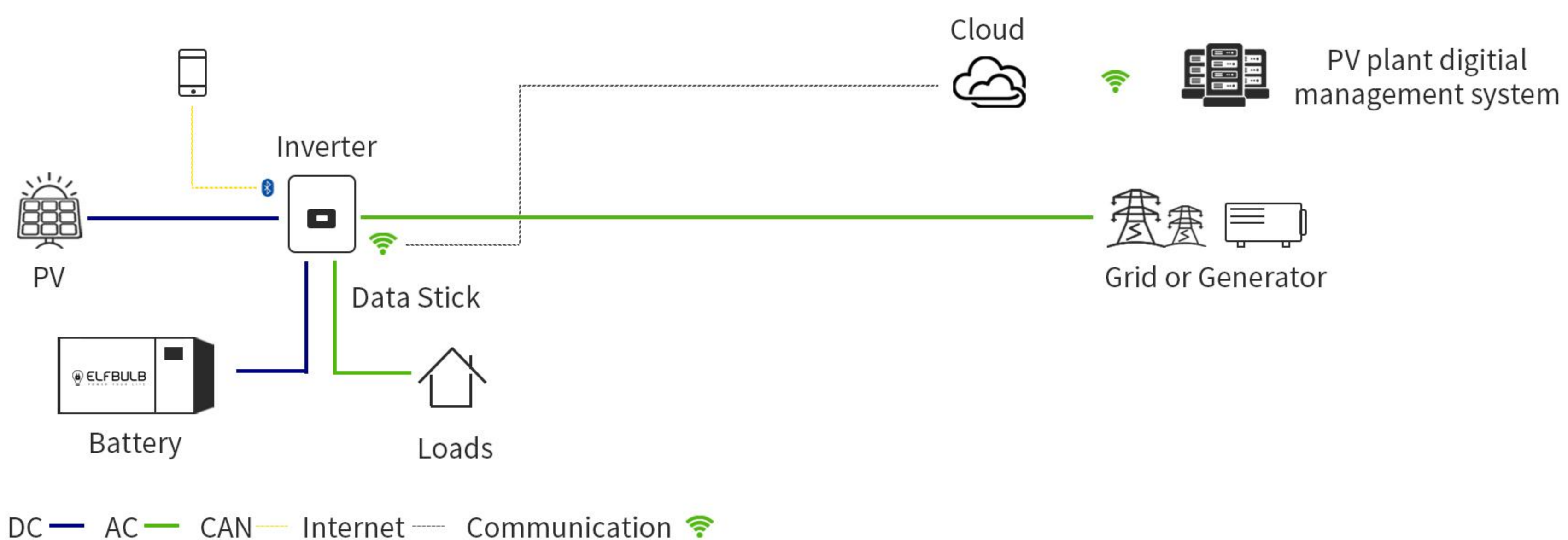


ELFBULB ESS SOLUTIONS

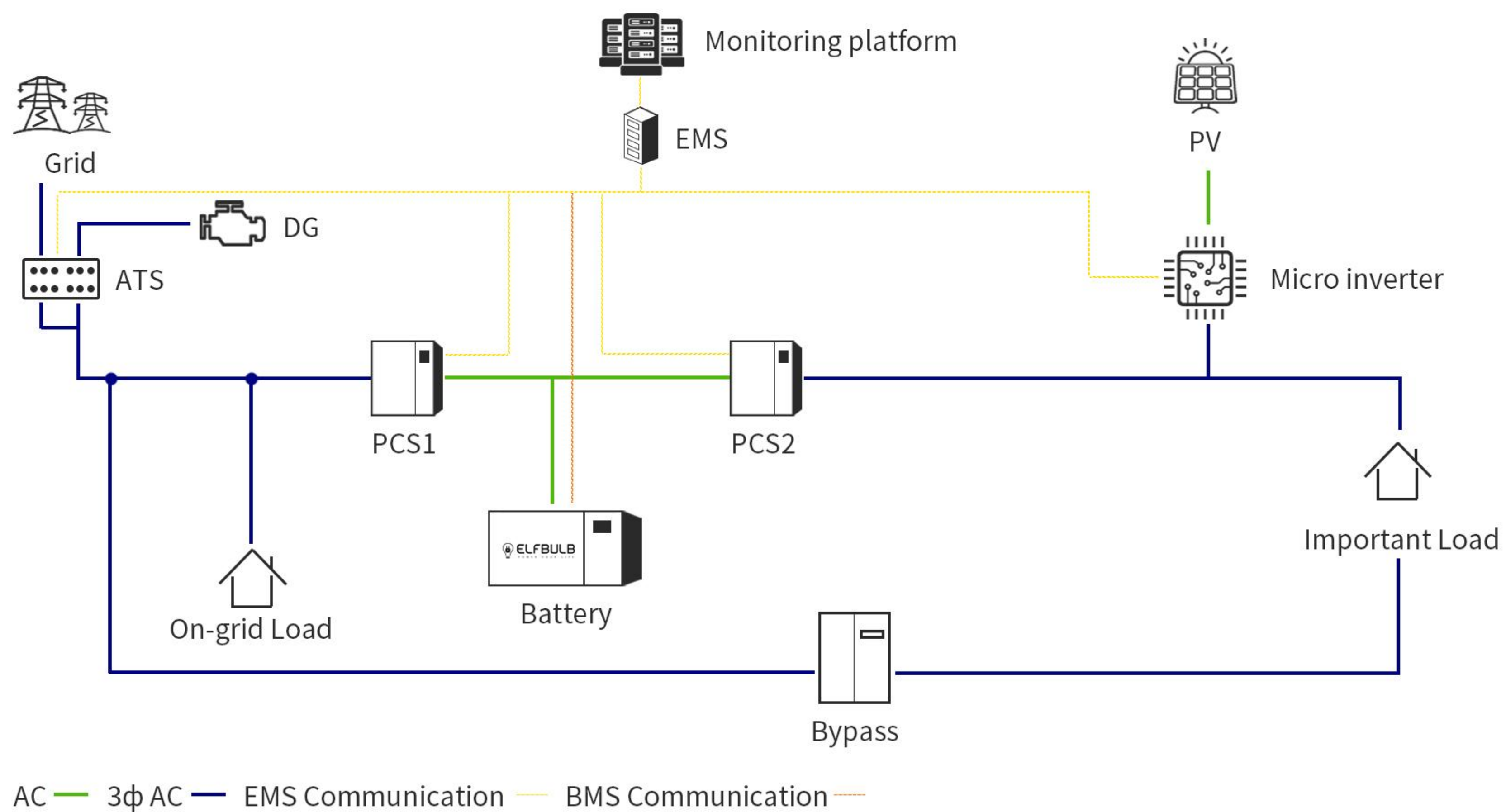
Commercial Energy Storage Solution(module)



Off-grid Energy Storage Solution



Online-0ms changeover solution



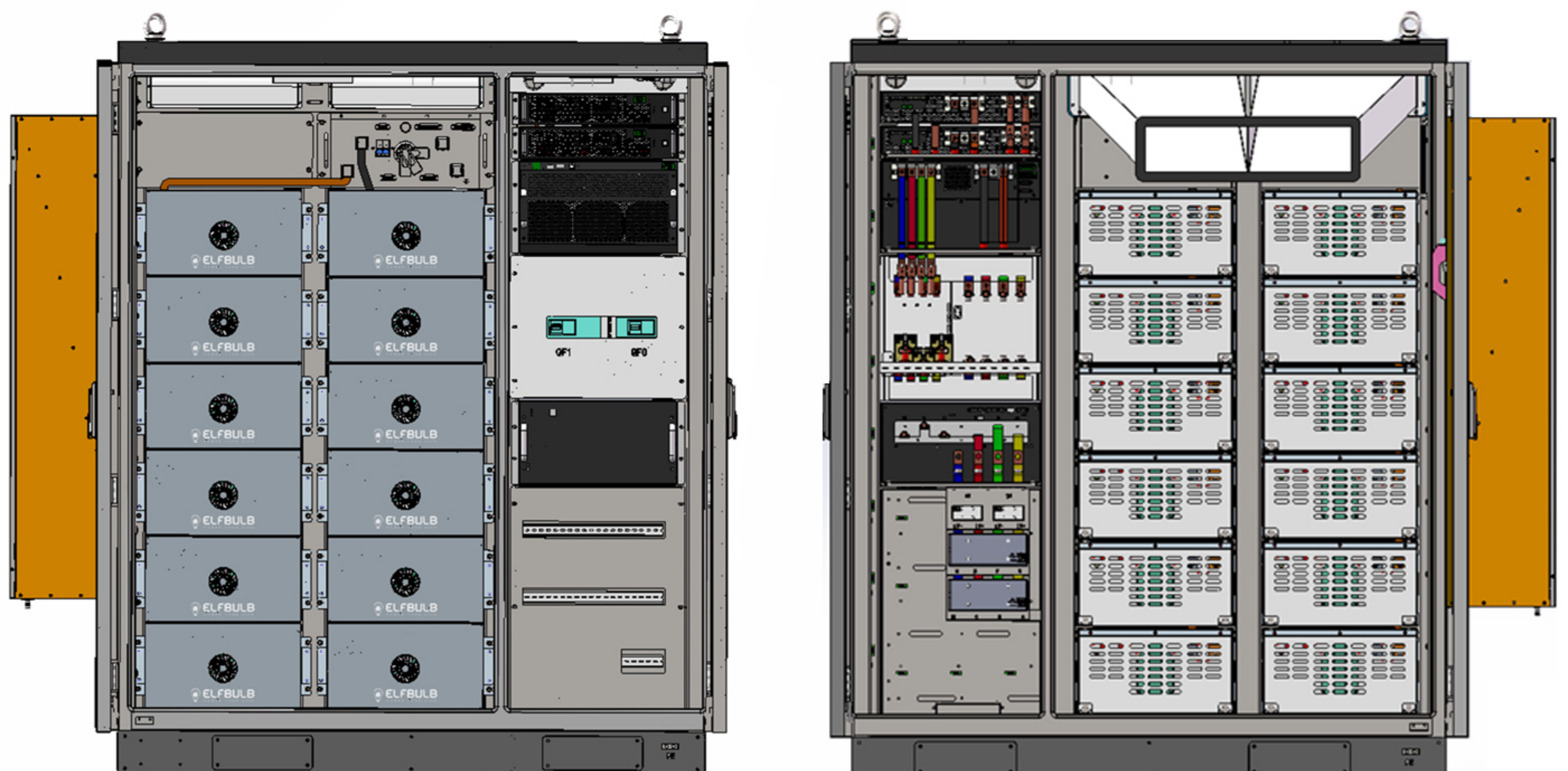
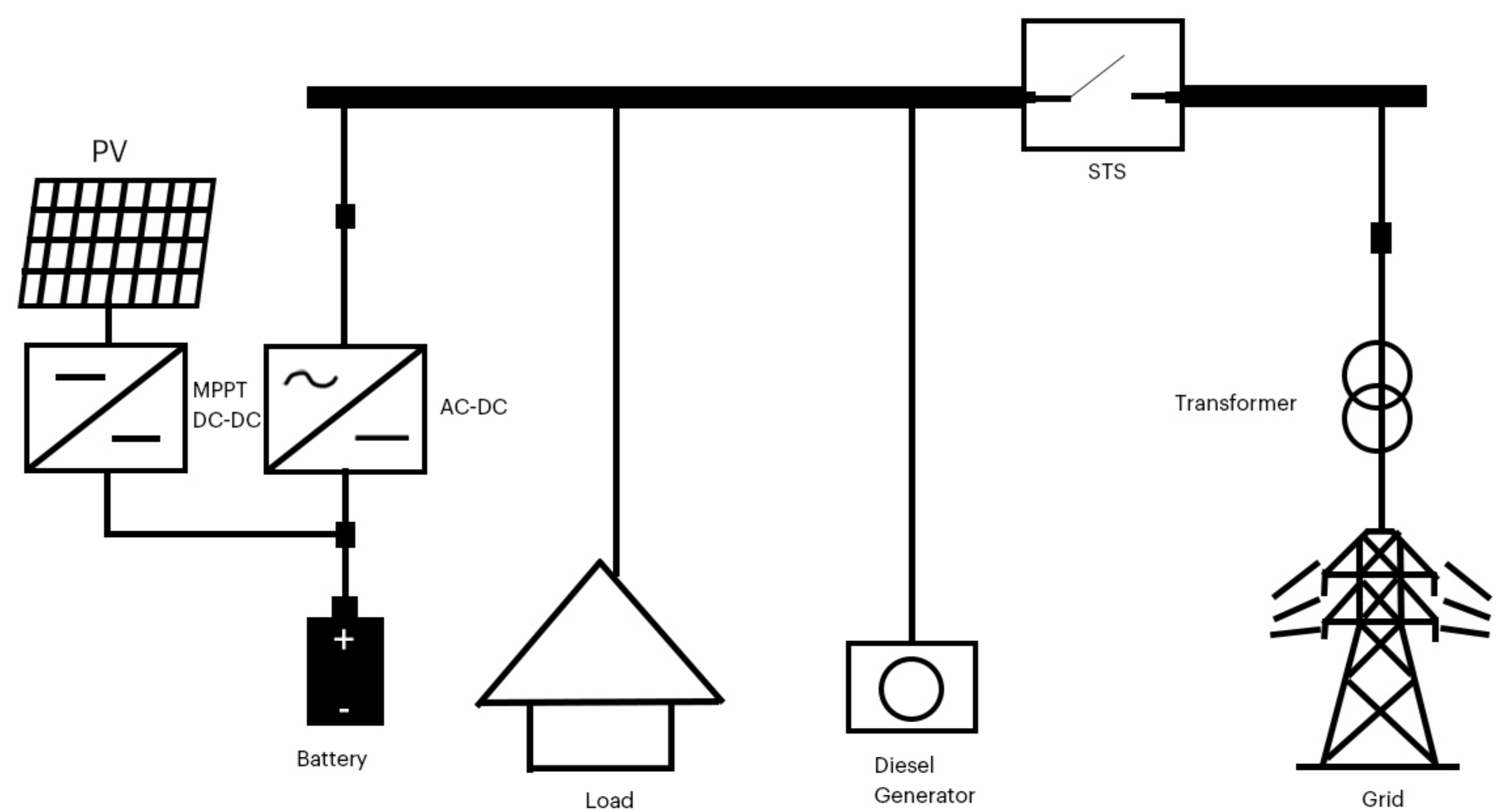
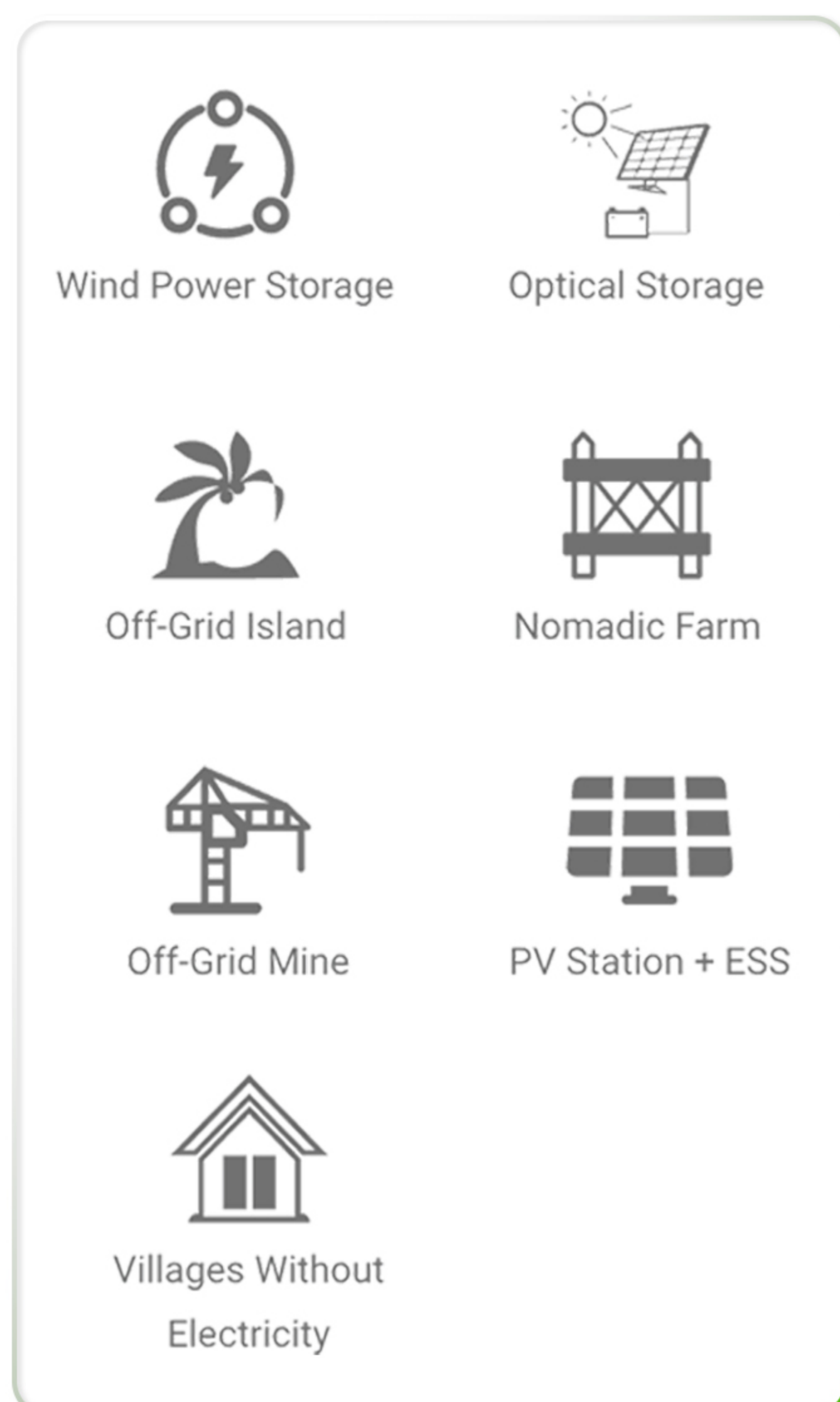
ESS-60KW/100KWH-160KWH



» Features

- With STS for <math><4\text{ms}</math> switch time
- Compatible with generators.
- On/Off grid mode operation
- Parallel operation with generators/grid

» Applications



SPECIFICATIONS

MODEL	ESS-60-100 (60KW-100KWH)
General Data	
Dimension(W*H*D)	1165*1246*2250mm
Weight	<1200 Kg
Working Temperature Range (°C)	-20~60
Protection Class	IP54
Altitude	2000
Humidity	0~95%
Fire Extinguishing	Aerogel
Air Conditioner	5KW for cooling / 3KW for heating
Anti-Corrosion	C3 (Optional upgrade to C5)
Authentication level	CE/UN38.3/MSDS
Battery Data	
Battery Type	Li-ion (LFP)
Nominal Capacity (kWh)	100.352KWh
Battery Item	Elfcube
Battery Module Qty.	51.2V 280Ah 14.336KWh 16S1P * 7 Battery Pack
DC Voltage Range(V)	313.6~408.8
Max. Operation Current (A)	140
Efficiency	95%
PCS DC/AC Data On-grid Mode	
Rated AC Power (KW)	60 (expandable to 7*60)
Rated AC Output Voltage(V)	400
Rated AC Output Frequency (Hz)	50/60
Max. AC Current(A)	90
Overload Capacity	110%@30S
AC PF	0.8 leading ~0.8 lagging
THDi	≤3%
Isolation Type	Non-isolation
Peak Efficiency	98.5%
Unbalanced capacity	100%
PCS DC/AC Data Off-grid Mode	
Output voltage accuracy	±1%
Unbalanced capacity	100%
Voltage harmonic distortion	<2% @line load
Overload capacity	±150%
PV DC/DC Data Parameter	
Rated Power(kW)	60 (expandable to 7*60)
PV Input Voltage(Vdc)	200 – 850
Max. current(A)	64
Max. Efficiency(%)	98.5%
Operation Mode	
On/off-grid Switch	STS module, switching time<20ms
	10 inch LCD Touch Panel
EMS	Self-Consumption; Micro-grid control; Demand response; Remote Control; Time of use;
Communication Type	Modbus TCP/IP

215KWH All-in-one Liquid Cooling BESS



» Applications



Wind Power Storage



Optical Storage



Off-Grid Island



Nomadic Farm



Off-Grid Mine



PV Station + ESS



Villages Without
Electricity

» Features

● Easy installation, operation and maintenance

Highly integrated, convenient for transportation, operation and maintenance

Fully pre-assembled, no need for on-site installation of battery modules

Fully functional debugging, meets the requirements for many scenarios with simple configurations available for use

● User-Friendly

Intelligent Remote support for strategy adjustments, configuration, and data viewing

Real-time status monitoring and fault logging, Enables fault warning and location identification

Built-in battery performance monitoring and recording capabilities

● Seamless Switching

Grid and off-grid switching time is less than 20 ms, allowing for uninterrupted load switching

● Long Operating Life, Support Full Power charge and discharge

Intelligent liquid cooling ensure higher efficiency

Intelligent liquid cooling prolongs battery life

Battery cells operate in an environmentally friendly manner, ensuring charge and discharge power

● Safe and Reliable

Multi-level protection for AC and DC, the system quickly disconnects during anomalies

Fire detection and protection at PACK level and cluster level, effectively managing dual detection in battery and electrical compartments for comprehensive coverage

● Flexible Configuration

Supports multiple Ongrid parallel
Support 0.5C and 1C charging/discharging
Support On/Off grid parallel

Compatible with diesel generation, wind power, photovoltaic systems, and uninterrupted switching

Technical Specification for 2 hours Backup (0.5C)

MODEL	100KW-215KWH	100KW-232KWH	125KW-241KWH	125KW-252KWH	125KW-261KWH
DC(Battery)					
Cells Type	LiFePO4 Lithium Iron Phosphate				
Cell specification	3.2V280Ah	3.2V280Ah	3.2V314Ah	3.2V304Ah	3.2V314Ah
Configuration of Battery	240S1P	260S1P	240S1P	260S1P	260S1P
Single Battery Pack	153.6V280Ah/43.008kWh	166.4V280Ah/46.592kWh	153.6V314Ah/48.230kWh	166.4V304Ah/50.586kWh	166.4V314Ah/52.250kWh
Battery Module	5 Packs	5 Packs	5 Packs	5 Packs	5 Packs
Battery Capacity	215kWh	232kWh	241kWh	252kWh	261kWh
Max. Power	100KW	100KW	100KW	100KW	100KW
Max. Current	140A	140A	157A	152A	157A
Battery Rated Voltage	768V	832V	768V	832V	832V
Battery Voltage Range	672V-864V	728V-936V	672V-864V	728V-936V	728V-936V
AC(On / Off Grid)					
Max. Power(kVA)	110KVA		137KVA		
Active Power(kW)	100KW		125KW		
Rated Voltage(V)	400V		400V		
Rated Current(A)	144A		180A		
Voltage Range	320V-460V		320V-460V		
Rated Frequency	50/60Hz		50/60Hz		
Range of Frequency	45-55/55-65Hz		45-55/55-65Hz		
THDI	<3%		<3%		
Power factor	1.0(Adjustable from 0.8 leading to 0.8 lagging)		1.0(Adjustable from 0.8 leading to 0.8 lagging)		
AC System	3 phase 4 wires		3 phase 4 wires		
Overload capability	110%		110%		
Solar Side(PV)					
Optional					
Max. Power	100KW(50KW*2)				
High Voltage side Voltage	560V-1000V				
High Voltage side Current	160A				
Low Voltage side Voltage	500V-900V				
Low Voltage side Current	200A				
Uninterrupted Load(STS)					
Optional					
STS Power	200KW				
STS Voltage	400V 50HZ/60HZ				
Overload Power	110%				
Shift Time	<20mS				
System operation strategie					
Functional	Anti Backflow and Black Start				
Operation Mode Selections	Power peak shaving and valley filling, electricity price peak valley arbitrage, photovoltaic priority for electricity cost savings, wind power generation priority for electricity cost savings, off grid power supply for remote areas				
Scenerios	Photovoltaic and diesel storage project, Wind power and diesel storage project, Wind and photovoltaic diesel storage project, Charging Station + Energy storage project, On-grid electricity selling project				
Specificaliton					
Cabinet Size(W*D*H)	1585/1366/2055mm				
Weight	≤2.7 T				
Max. cycle efficiency	≥ 90%				
IP rating	IP55				
Auxiliary Power Supply	Self-powered, Externally powered				
Corrosion resistance rating	C3/C5				
Operating Humidity Range	0%-100%(Non-condensing)				
Operating Temperature	-30 -50 (>45 derating)				
Max. Operation Altitude	2000 m				
Cooling method	Intelligency Liquid Cooling				
Fire safety configuration	Smoke detector, Heat detector, Gas-based fire extinguishing system, Pressure relief valve, Pack-level fire protection, Cluster-level fire protection, Water-based fire protection, Automoaatic pressure relief				
Communication	Ethernet 485 CAN				
Communication Protocal	ModbusTCP				

MPPT Optional: According to the actual demand

Technical Specification for 1 hours Backup (1C)

MODEL	200KW-215KWH	200KW-232KWH	200KW-241KWH	250KW-252KWH	250KW-261KWH
DC(Battery)					
Cells Type	LiFePO4 Lithium Iron Phosphate				
Cell specification	3.2V280Ah	3.2V280Ah	3.2V314Ah	3.2V304Ah	3.2V314Ah
Configuration of Battery	240S1P	260S1P	240S1P	260S1P	260S1P
Single Battery Pack	153.6V280Ah/43.008kWh	166.4V280Ah/46.592kWh	153.6V314Ah/48.230kWh	166.4V304Ah/50.586kWh	166.4V314Ah/52.250kWh
Battery Module	5 Packs	5 Packs	5 Packs	5 Packs	5 Packs
Battery Capacity	215kWh	232kWh	241kWh	252kWh	261kWh
Max. Power	100KW	200KW	200KW	250KW	250KW
Max. Current	280A	280A	314A	304A	280A
Battery Rated Voltage	768V	832V	768V	832V	832V
Battery Voltage Range	672V-864V	728V-936V	672V-864V	728V-936V	728V-936V
AC(On / Off Grid)					
Max. Power(kVA)	110KVA		137KVA		
Active Power(kW)	100KW		125KW		
Rated Voltage(V)	400V		400V		
Rated Current(A)	288A		360A		
Voltage Range	320V-460V		320V-460V		
Rated Frequency	50/60Hz		50/60Hz		
Range of Frequency	45-55/55-65Hz		45-55/55-65Hz		
THDI	<3%		<3%		
Power factor	1.0(Adjustable from 0.8 leading to 0.8 lagging)		1.0(Adjustable from 0.8 leading to 0.8 lagging)		
AC System	3 phase 4 wires		3 phase 4 wires		
Overload capability	110%		110%		
Solar Side(PV)					
Optional					
Max. Power	100KW(50KW*2)				
High Voltage side Voltage	560V-1000V				
High Voltage side Current	160A				
Low Voltage side Voltage	500V-900V				
Low Voltage side Current	200A				
Uninterrupted Load(STS)					
Optional					
STS Power	200KW				
STS Voltage	400V 50HZ/60HZ				
Overload Power	110%				
Shift Time	<20mS				
System operation strategie					
Functional	Anti Backflow and Black Start				
Operation Mode Selections	Power peak shaving and valley filling, electricity price peak valley arbitrage, photovoltaic priority for electricity cost savings, wind power generation priority for electricity cost savings, off grid power supply for remote areas				
Scenerios	Photovoltaic and diesel storage project, Wind power and diesel storage project, Wind and photovoltaic diesel storage project, Charging Station + Energy storage project, On-grid electricity selling project				
Specifcaiton					
Cabinet Size(W*D*H)	1585/1366/2055mm				
Weight	≤2.7 T				
Max. cycle efficiency	≥ 90 %				
IP rating	IP55				
Auxiliary Power Supply	Self-powered, Externally powered				
Corrosion resistance rating	C3/C5				
Operating Humidity Range	0%-100%(Non-condensing)				
Operating Temperature	-30 -50 (>45 derating)				
Max. Operation Altitude	2000 m				
Cooling method	Intelligency Liquid Cooling				
Fire safety configuration	Smoke detector, Heat detector, Gas-based fire extinguishing system, Pressure relief valve, Pack-level fire protection, Cluster-level fire protection, Water-based fire protection, Automoaic pressure relief				
Communication	Ethernet 485 CAN				
Communication Protocal	ModbusTCP				

MPPT Optional: According to the actual demand

215KWH Air Cooling BESS



» Applications



Wind Power Storage



Optical Storage



Off-Grid Island



Nomadic Farm



Off-Grid Mine



PV Station + ESS



Villages Without Electricity

» Features

● Easy installation, operation and maintenance

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Multi-level protection for AC and DC, the system quickly disconnects during anomalies

Fire detection and protection at PACK level and cluster level, effectively managing dual detection in battery and electrical compartments for comprehensive coverage

● Flexible Configuration

Supports multiple Ongrid parallel
Support 0.5C and 1C charging/discharging
Support On/Off grid parallel

Compatible with diesel generation, wind power, photovoltaic systems, and uninterrupted switching

Technical Specification for 2 hours Backup (0.5C)

Model	100KW-197KWH	100KW-215KWH	100KW-232KWH	125KW-252KWH	125KW-261KWH
DC Battery					
Cells Type	LiFePO4 Lithium Iron Phosphate				
Cell specification	3.2V280Ah	3.2V314Ah	3.2V314Ah	3.2V304Ah	3.2V314Ah
Configuration of Battery	220S1P	240S1P	260S1P	260S1P	260S1P
Single Battery Pack	64V280Ah/17.920kWh	64V314Ah/20.096kWh	64V314Ah/20.096kWh	4V304Ah/19.456kWh	64V314Ah/20.096kWh
Battery Module	11 Packs	12 Packs	13 Packs	13 Packs	13 Packs
Battery Capacity	197kWh	215kWh	232kWh	252kWh	261kWh
Max. Power	100KW	100KW	100KW	100KW	100KW
Max. Current	140A	140A	157A	152A	157A
Battery Rated Voltage	704V	768V	768V	832V	832V
Battery Voltage Range	616V-792V	672V-864V	672V-864V	728V-936V	728V-936V
AC On / Off Grid					
Max. Power(kVA)	110KVA		137KVA		
Active Power(kW)	100KW		125KW		
Rated Voltage(V)	400V		400V		
Rated Current(A)	144A		180A		
Voltage Range	320V-460V				
Rated Frequency	50/60Hz				
Range of Frequency	45-55/55-65Hz				
THDI	<3%				
Power factor	1.0(Adjustable from 0.8 leading to 0.8 lagging)				
AC System	3 phase 4 wires				
Overload capability	110%				
Solar Side PV	Optional				
Max. Power	100KW(50KW*2)				
High Voltage side Voltage	560V-1000V				
High Voltage side Current	160A				
Low Voltage side Voltage	500V-900V				
Low Voltage side Voltage	200A				
Uninterrupted Load(STS)	Optional				
STS Power	200KW				
STS Voltage	400V 50HZ/60HZ				
Overload Power	110%				
Shift Time	<20mS				
System operation strategie					
Functional	Anti Backflow and Black Start				
Operation Mode Selections	Power peak shaving and valley filling, electricity price peak valley arbitrage, photovoltaic priority for electricity cost savings, wind power generation priority for electricity cost savings, off grid power supply for remote areas				
Scenerios	Photovoltaic and diesel storage project, Wind power and diesel storage project, Wind and photovoltaic diesel storage project, Charging Station + Energy storage project, On-grid electricity selling project				
Specificaliton					
Cabinet Size (W*D*H)	1696/1408/2055mm				
Weight	≤2.7 T				
Max. cycle efficiency	≥90%				
IP rating	IP55				
Auxiliary Power Supply	Self-powered, Externally powered				
Corrosion resistance rating	C3/C5				
Operating Humidity Range	0%-100%(Non-condensing)				
Operating Temperature	-30°C-50°C(>45°C derating)				
Max. Operation Altitude	2000m				
Cooling method	Intelligent Air Cooling				
Fire safety configuration	Smoke detector, Heat detector, Gas-based fire extinguishing system, Pressure relief valve, Pack-level fire protection, Cluster-level fire protection, Water-based fire protection, Automatic pressure relief				
Communication	Ethernet、485、CAN				
Communication Protocol	ModbusTCP				

MPPT Optional: According to the actual demand

Technical Specification for 1 hours Backup (1C)

MODEL	30KW-100KWH	50KW-100KWH	50KW-112KWH	50KW-125KWH	50KW-140KWH	50KW-241KWH
DC(Battery)						
Cells Type	LiFePO4 Lithium Iron Phosphate					
Cell specification	3.2V280Ah	3.2V280Ah	3.2V280Ah	3.2V280Ah	3.2V306Ah	3.2V314Ah
Configuration of Battery	112S1P	112S1P	112S1P	140S1P	140S1P	240S1P
Single Battery Pack	51.2V280AH/14.336kWh			64V280AH/17.920kWh	64V306AH/19.584kWh	64V314AH/20.09kWh
Battery Module	7 Packs	7 Packs	7 Packs	7 Packs	7 Packs	12 Packs
Battery Capacity	100kWh	100kWh	112kWh	125kWh	137kWh	241kWh
Max. Power	30KW	50KW	50KW	50KW	50KW	50KW
Max. Current	140A	140A	140A	140A	152A	157A
Battery Rated Voltage	358.4V	358.4V	358.4V	448V	448V	768V
Battery Voltage Range	313.6V-403.2V	313.6V-403.2V	313.6V-403.2V	392V-504V	392V-504V	672V-876V
AC(On / Off Grid)						
Max. Power(kVA)	33KVA	55KVA			55KVA	
Active Power(kW)	30KW	50KW			50KW	
Rated Voltage(V)	400V	400V			400V	
Rated Current(A)	43A	86A			86A	
Voltage Range	320V-460V			320V-460V		
Rated Frequency	50/60Hz			50/60Hz		
Range of Frequency	45-55/55-65Hz			45-55/55-65Hz		
THDI	<3%			<3%		
Power factor	1.0(Adjustable from 0.8 leading to 0.8 lagging)			1.0(Adjustable from 0.8 leading to 0.8 lagging)		
AC System	3 phase 4 wires			3 phase 4 wires		
Overload capability	110%			110%		
Solar Side(PV)						
	Optional					
Max. Power	100KW(30KW*2)					
High Voltage side Voltage	560V-1000V					
High Voltage side Current	80A					
Low Voltage side Voltage	500V-900V					
Low Voltage side Voltage	100A					
Uninterrupted Load(STS)						
	Optional					
STS Power	50KW					
STS Voltage	400V 50HZ/60HZ					
Overload Power	110%					
Shift Time	<20mS					
System operation strategie						
Functional	Anti Backflow and Black Start					
Operation Mode Selections	Power peak shaving and valley filling, electricity price peak valley arbitrage, photovoltaic priority for electricity cost savings, wind power generation priority for electricity cost savings, off grid power supply for remote areas					
Scenerios	Photovoltaic and diesel storage project, Wind power and diesel storage project, Wind and photovoltaic diesel storage project, Charging Station + Energy storage project, On-grid electricity selling project					
Specificaiton						
Cabinet Size(W*D*H)	1696/1408/2055mm					
Weight	≤2.7 T					
Max. cycle efficiency	≥90%					
IP rating	IP55					
Auxiliary Power Supply	Self-powered, Externally powered					
Corrosion resistance rating	C3/C5					
Operating Humidity Range	0%-100%(Non-condensing)					
Operating Temperature	-30°C-50°C(>45°C derating)					
Max. Operation Altitude	2000m					
Cooling method	Intelligency Air cooling					
Fire safety configuration	Smoke detector, Heat detector, Gas-based fire extinguishing system, Pressure relief valve, Pack-level fire protection, Cluster-level fire protection, Water-based fire protection, Automoaatic pressure relief					
Communication	Ethernet, 485, CAN					
Communication Protocal	ModbusTCP					

MPPT Optional: According to the actual demand

1.9MWH Liquid Cooling BESS



» Applications

● COMMERCIAL & INDUSTRIAL

Reduce energy costs through energy arbitration and peak shaving

● AGRICULTURAL

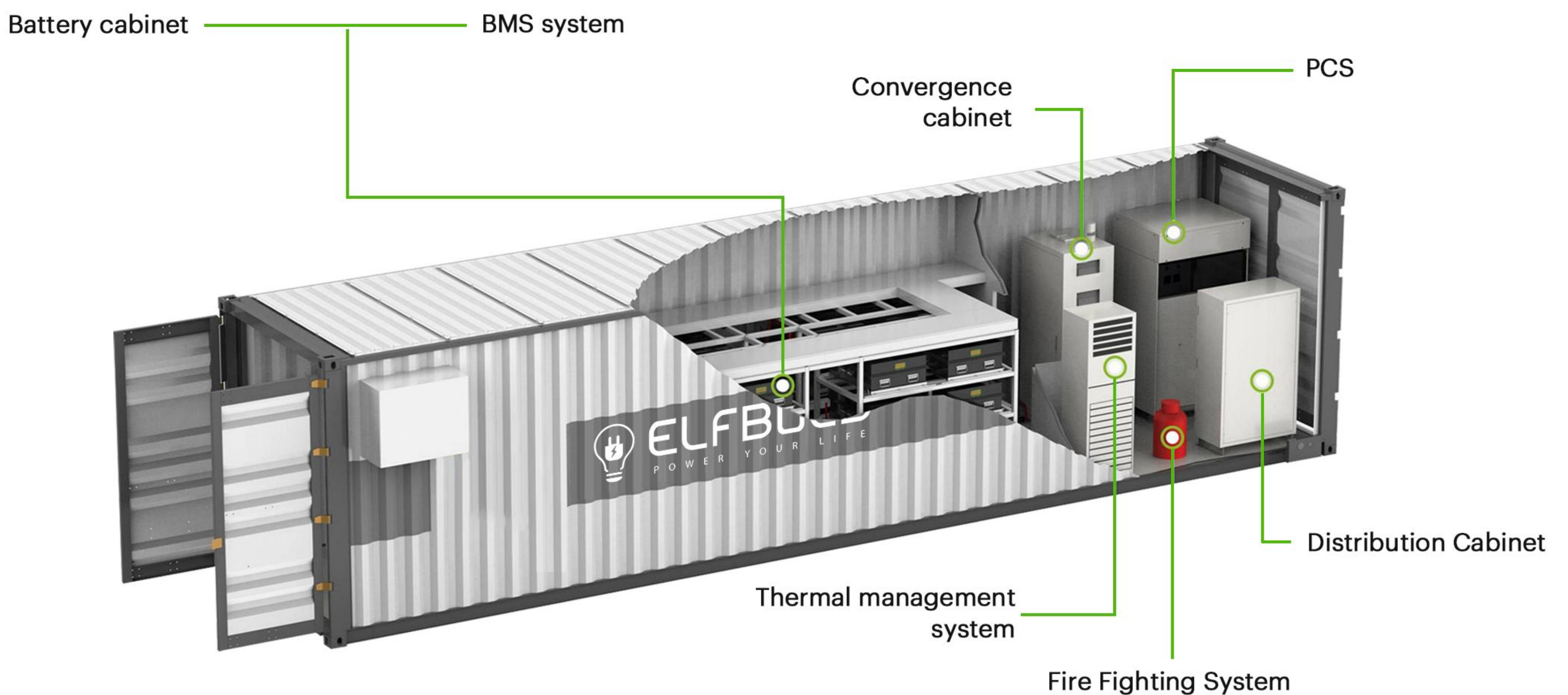
Achieve energy security with predictable costs and reduced disruption and production loss

● MICROGRID

Seamlessly integrate with solar power for reliable off-grid solutions

● ACCESS TO GREEN MARKETS

Decrease reliance on fuel generators and enhance sustainability to gain entry into green markets and eco-tourism



1.9MWH Liquid Cooling Battery Energy Storage System

MODEL	500KW-1900KWH
GENERAL DATA	
Dimension	6058(L)x2438(W)x2591(H)mm
Weight	≤28T
Working Temperature Range	-20℃ ~ 40℃
Protection Class	IP55
Altitude	3000m (no derating)
Humidity	0~95% (no condensation)
Fire Extinguishing	Aerosol fire extinguishing device
Cooling	40KW Liquid cooling system
Anti-Corrosion	C3
Authentication level	GB/T-36276
BATTERY DATA	
Battery Type	3.2V314Ah Lithium ion battery
Nominal Capacity (kWh)	1929KWh
Battery Item	240S8P (Cluster 768V/241KWh PACK 3.2V/314Ah,448W(0.5P@25℃))
Battery Module Qty.	40PCS(5 pcs/cluster,8 cluster)
DC Voltage Range(V)	768V(600V-876)
Max. Operation Current (A)	1256A
Efficiency	94%
PCS DC/AC DATA ON-GRID MODE	
Rated AC Power (KW)	500KW
Rated AC Output Voltage(V)	400V
Rated AC Output Frequency (Hz)	50Hz
Max. AC Current(A)	722A
Overload Capacity	110%
AC PF	0.8 (perceptual) ~ 0.8 (capacitive)
THDi	<3%@ rated power
Isolation Type	Transformer
Peak Efficiency	99%
PCS DC/AC DATA OFF-GRID MODE	
Output voltage accuracy	±2%
Voltage harmonic distortion	<2%
Overload capacity	110%
PV DC/DC DATA PARAMETER	
Rated Power(kW)	600KW/660KW/720KW
PV Input Voltage(Vdc)	250VDC-850VDC
Max. current(A)	The single-channel power does not exceed 60KW, and the current value is related to the voltage.
Max. Efficiency(%)	Related to photovoltaic panels and lighting in the installation area
OPERATION MODE	
On/off-grid Switch	STS non-stop switching
EMS	It can be used in photovoltaic diesel storage projects, wind power diesel storage projects, wind photovoltaic diesel storage projects, charging pile + energy storage projects, and online electricity sales projects.
Communication Type	Ethernet, 485, CAN

MPPT Optional: According to the actual demand

All-in-one Air Cooling BESS



» Applications

● EASY TO INSTALL AND OPERATE

Highly integrated for easy transportation and operation and maintenance.
All pre-assembled, no need to install battery modules on site.
Full debugging function, simple configuration can be used in many scenarios.

● SAFE AND RELIABLE

AC and DC multi-level protection, system abnormality is quickly cut off.
Three-level fire detection and protection at PACK level, cluster level and container level.
Double inspection of battery compartment and electrical compartment, comprehensive coverage.

● FLEXIBLE MATCHING

Can support DC side pure DC side container shipments.
Can support DC and AC integration into one container.
Can be combined with photovoltaic grid connection and energy storage grid connection.
Can support diesel power, wind power, photovoltaic and other scenarios.

● LONG OPERATING LIFE

Intelligent air cooling, professional air duct design.
Intelligent cooling system, heat source does not accumulate.
The battery cell has a friendly working environment and guaranteed charging and discharging power.

● SMART AND FRIENDLY

Remote support policy modification, configuration and data viewing.
Real-time status monitoring and fault recording.
Realize fault early warning and fault location.
Built-in battery performance monitoring and logging capabilities.

● CONTINUOUS SWITCHING

Uninterrupted switching time from grid connection within 2MW is 20ms.
Greater than 2MW, communication and technical confirmation based on usage scenarios.



Technical Parameter Table Of DC Energy Storage Container

Below DC1000V (Adapted to AC400V AC side)

MODEL	10FT-802KWH	20FT-1806KWH	40FT-3813KWH	10FT-1044KWH	20FT-2351KWH	40FT-4963WH
DC System						
Cell type	Lithium ion phosphate					
Cell specifications	3.2V280AH			3.2V314AH		
System battery configuration	224S4P	224S9P	224S19P	260S4P	260S9P	260S19P
Battery capacity	802kWh	1806kWh	3813kWh	1044kWh	2351kWh	4963kWh
Maximum power	400KW	750KW	1500KW	500KW	1000KW	2000KW
Maximum current	560A	1260A	2660A	628A	1413A	2983A
Battery rated voltage	716.8V			832V		
Battery voltage range	627V-806V			728V-936V		
Battery Cluster						
Battery configuration	224S1P			260S1P		
Battery capacity	200.704kWh			261.248kWh		
Maximum power	100KW			130KW		
Maximum current	140A			157A		
Battery rated voltage	716.8V			832V		
Battery voltage range	627V-806V			728V-936V		
Battery Module						
Battery configuration	16S1P			20S1P		
Battery capacity	14.336kWh			20.096kWh		
Maximum power	7KW			10KW		
Maximum current	140A			157A		
Battery rated voltage	51.2V			64V		
Battery voltage range	44.8V-57.6V			56V-72V		
Battery Cell						
Nominal voltage/capacity	3.2V/280Ah			3.2V/314Ah		
Nominal energy	896Wh			1004.8Wh		
Max. continuous charge and discharge power	896W			502W		
Rated charge and discharge power	448W			502W		
Max. charge and discharge current	280A			157A		
Rated charge and discharge current	140A			157A		
General Parameters						
Cabinet size(w*d*h)mm	2991*2436*2591	6058*2436*2591	12192*2436*2591	2991*2436*2591	6058*2436*2591	12192*2436*2591mm
Weight	≈10.8t	≈16.9t	≈33.8t	≈12.2t	≈23.7t	≈48.2t
Maximum cycle efficiency	≥95%					
IP rating	IP55					
Auxiliary power supply	Self-powered/externally powered					
Anti-corrosion level	C3-C5					
Working humidity range	0% - 100% (no condensation)					
Operating temperature range	-30 °C - 50 °C (> 45 °C derating)					
Maximum working altitude	2000 m					
Battery cabinet cooling method	Intelligent air cooling					
Fire safety configuration	Smoke detectors,temperature detectors,aerosol fire extinguishers,presure relief valves PACK level fire protection,cluster level fire protection,water fire protection,automatic pressure relief					
Communication	Ethernet, 485, CAN					
Communication protocol	Modbus TCP/IP					

Technical Parameter Table Of AC And DC Energy Storage Containers (Battery Below DC1000V + AC400V AC PCS)

MODEL	10FT-401KWH 200KW	20FT-1204KWH 500KW	40FT-3211KWH 1000KW	10FT-522KWH 250KW	20FT-1567KWH 500KW	40FT-3134KWH 1500KW
DC System						
Battery cell type	Lithium ion phosphate					
Battery cell specification	3.2V280AH			3.2V314AH		
System battery configuration	224S2P	224S6P	224S16P	260S2P	260S6P	260S12P
Battery capacity	401kWh	1204kWh	3211kWh	522kWh	1567kWh	3134kWh
Maximum power	200KW	500KW	1000KW	250KW	500KW	1500KW
Maximum current	280A	840A	2660A	314A	942A	1884A
Battery rated voltage	716.8V			832V		
Battery voltage range	627V-806V			728V-936V		
Battery Cluster						
Battery configuration	224S1P			260S1P		
Battery capacity	200.704kWh			261.248kWh		
Maximum power	100KW			130KW		
Maximum current	140A			157A		
Battery rated voltage	716.8V			832V		
Battery voltage range	627V-806V			728V-936V		
Battery Module						
Battery configuration	16S1P			20S1P		
Battery capacity	14.336kWh			20.096kWh		
Maximum power	7KW			10KW		
Maximum current	140A			157A		
Battery rated voltage	51.2V			64V		
Battery voltage range	44.8V-57.6V			56V-72V		
AC (on-grid and off-grid)						
Maximum power (kVA)	220KVA	550KVA	1100KVA	275KVA	550KVA	1500KVA
Active power (kW)	200KW	500KW	1000KW	250KW	500KW	1650KW
Rated current (A)	288A	722A	1444A	361A	722A	2166A
Rated voltage (V)	AC400V					
Voltage range	AC340V-AC460V					
Rated frequency	50Hz/60Hz					
THDI	3%					
Power factor	>0.99 (rated power)					
AC standard	Three-phase four-wire + ground wire (3W+N+PE)					
Overload capacity	110%					
PV Side (optional)						
Maximum power	120KW/240KW	600KW/660KW/720KW	1200KW/1320KW/1440KW	300KW/360KW	600KW/660KW/720KW	1800KW/1980KW/2160KW
PV voltage	DC250V-DC850V					
Load Uninterrupted (STS) (Some are optional, some are standard)						
STS power	200KW	500KW	1000KW	250KW	500KW	1500KW
STS voltage	400V 50HZ/60HZ					
Overload power	110%					
Switching time	<20mS					
System Operation Strategy						
Functionality	Anti-backflow, black start					
Operation mode selection	Power peak shaving and valley filling, peak and valley arbitrage of electricity prices, photovoltaic priority to save electricity bills, wind power generation priority to save electricity bills, off-grid power supply in remote areas					
Operation scenario	Photovoltaic diesel storage project, wind power diesel storage project, wind photovoltaic diesel storage project, charging pile + energy storage project, online electricity sales project					
General Parameters						
Cabinet dimensions(w*d*h)mm	2991*2436*2591	6058*2436*2591	12192*2436*2591	2991*2436*2591	6058*2436*2591	12192*2436*2591
Weight	≈8.9t	≈18.6t	≈43.4t	≈9.7t	≈20.5t	≈44.2t
Maximum cycle efficiency	≥95%					
IP rating	IP55					
Auxiliary power supply	Self-powered/externally powered					
Corrosion resistance level	C3-C5					
Working humidity range	0% - 100% (no condensation)					
Working temperature range	-30 °C - 50 °C (> 45 °C derating)					
Maximum working altitude	2000 m					
Battery cabinet cooling method	Intelligent air cooling					
Fire safety configuration	Smoke detectors, temperature detectors, aerosol fire extinguishers, pressure relief valves ,PACK level fire protection, cluster level fire protection, water fire protection, automatic pressure relief					
Communication	Ethernet, 485, CAN					
Communication protocol	Modbus TCP/IP					

Technical Parameter Table Of DC Energy Storage Container Below DC1500V (Adapted to AC690V AC Side)

MODEL	20FT-2064KWH	40FT-4128KWH	20FT-3054KWH	40FT-5345KWH
DC System				
Cell type	Lithium ion phosphate			
Cell specifications	3.2V280AH		3.2V314H	
System battery configuration	384S6P	384S12P	380S8P	380S14P
Battery capacity	2064kWh	4128kWh	3054kWh	5345kWh
Maximum power	1000KW	1500KW	1500KW	2500KW
Maximum current	840A	1680A	942A	2198A
Battery rated voltage	1228.8V		1216V	
Battery voltage range	1075V-1382V		1064V-1368V	
Battery Cluster				
Battery configuration	384S1P		380S1P	
Battery capacity	344.064kWh		381.824kWh	
Maximum power	172KW		190KW	
Maximum current	140A		157A	
Battery rated voltage	1228.8V		1216V	
Battery voltage range	1075V-1382V		1064V-1368V	
Battery Module				
Battery configuration	16S1P		20S1P	
Battery capacity	14.336kWh		20.096kWh	
Maximum power	7KW		10KW	
Maximum current	140A		157A	
Battery rated voltage	51.2V		64V	
Battery voltage range	44.8V-57.6V		56V-72V	
Battery Cell				
Nominal voltage/capacity	3.2V/280Ah		3.2V/314Ah	
Nominal energy	896Wh		1004.8Wh	
Max. continuous charge and discharge power	896W		502W	
Rated charge and discharge power	448W		502W	
Max. charge and discharge current	280A		157A	
Rated charge and discharge current	140A		157A	
General Parameters				
Cabinet size(w*d*h)mm	6058*2436*2591	12192*2436*2591	6058*2436*2591	12192*2436*2591
Weight	≈21.5t	≈41.6t	≈28.8t	≈49.6t
Maximum cycle efficiency	≥95%			
IP rating	IP55			
Auxiliary power supply	Self-powered/externally powered			
Anti-corrosion level	C3-C5			
Working humidity range	0% - 100% (no condensation)			
Operating temperature range	-30 °C - 50 °C (> 45 °C derating)			
Maximum working altitude	2000 m			
Battery cabinet cooling method	Intelligent air cooling			
Fire safety configuration	Smoke detectors, temperature detectors, aerosol fire extinguishers, pressure relief valves			
	PACK level fire protection, cluster level fire protection, water fire protection, automatic pressure relief			
Communication	Ethernet, 485, CAN			
Communication protocol	Modbus TCP/IP			

All-in-one Liquid Cooling BESS



» Applications

● EASY TO INSTALL AND OPERATE

Highly integrated for easy transportation and operation and maintenance.
All pre-assembled, no need to install battery modules on site.
Full debugging function, simple configuration can be used in many scenarios.

● SAFE AND RELIABLE

AC and DC multi-level protection, system abnormality is quickly cut off.
Three-level fire detection and protection at PACK level, cluster level and container level.
Double inspection of battery compartment and electrical compartment, comprehensive coverage.

● FLEXIBLE MATCHING

Can support DC side pure DC side container shipments.
Can support DC and AC integration into one container.
Can be combined with photovoltaic grid connection and energy storage grid connection.
Can support diesel power, wind power, photovoltaic and other scenarios.

● LONG OPERATING LIFE

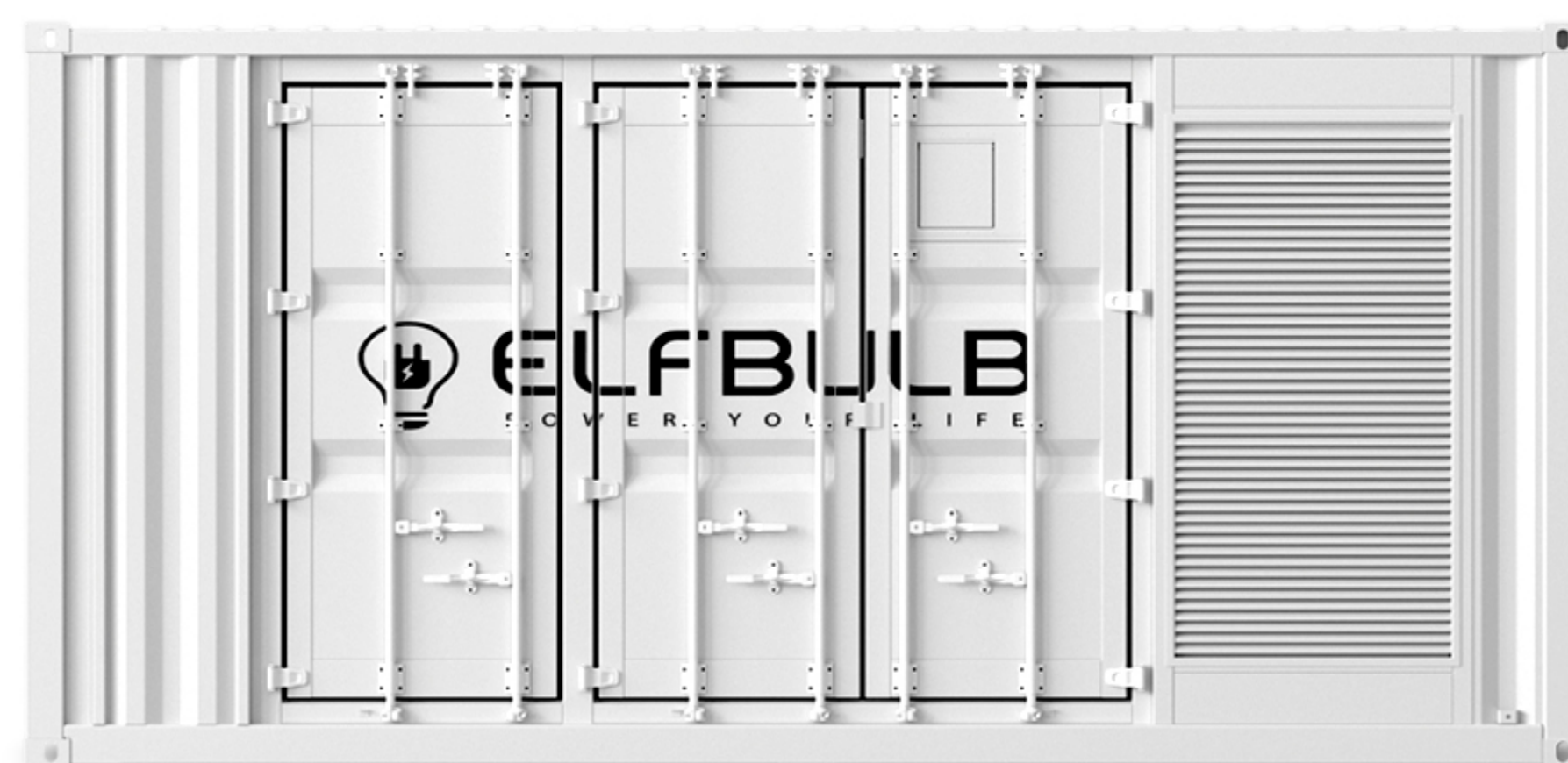
Smart liquid cooling ensures higher efficiency.
Smart liquid cooling for longer battery cycle life.
The battery cell has a friendly working environment and guaranteed charging and discharging power.
Intelligent cooling system, heat source does not accumulate.

● SMART AND FRIENDLY

Remote support policy modification, configuration and data viewing.
Real-time status monitoring and fault recording.
Realize fault early warning and fault location.
Built-in battery performance monitoring and logging capabilities.

● CONTINUOUS SWITCHING

Uninterrupted switching time from grid connection within 2MW is 20ms.
Greater than 2MW, communication and technical confirmation based on usage scenarios.



Technical Parameter Table Of DC Liquid-cooled Energy Storage Container Below DC1000V (Adapted to AC400V AC Side)

(Note that PCS supports AC side and does not support DC side paralleling. This function needs to be considered when matching. For specifications that are not in the list, please technical confirmation)

MODEL	10FT-1290KWH	20FT-3225KWH	40FT-7095KWH	10FT-1446KWH	20FT-3628KWH	40FT-7958WH
DC System						
Cell type	Lithium ion phosphate					
Cell specifications	3.2V280AH			3.2V314AH		
System battery configuration	240S6P	240S15P	240S33P	240S6P	240S15P	240S33P
Battery capacity	1290kWh	3225kWh	7095kWh	1446kWh	3628kWh	7958kWh
Maximum power	1290KW	3225KW	7095KW	723KW	1814KW	3979KW
Maximum current	1680A	4200A	9240A	942A	2355A	5181A
Battery rated voltage	768V			768V		
Battery voltage range	672V-864V					
Battery Cluster						
Battery configuration	240S1P			240S1P		
Battery capacity	215.040kWh			241.152kWh		
Maximum power	215KW			120KW		
Maximum current	280A			157A		
Battery rated voltage	768V			768V		
Battery voltage range	672V-864V			672V-864V		
Battery Module						
Battery configuration	48S1P			48S1P		
Battery capacity	43.008kWh			48.304kWh		
Maximum power	43KW			24KW		
Maximum current	280A			157A		
Battery rated voltage	153.6V			153.6V		
Battery voltage range	133.4V-172.8V			133.4V-172.8V		
Battery Cell						
Nominal voltage/capacity	3.2V/280Ah			3.2V/314Ah		
Nominal energy	896Wh			1004.8Wh		
Max. continuous charge and discharge power	896W			502W		
Rated charge and discharge power	448W			502W		
Max. charge and discharge current	280A			157A		
Rated charge and discharge current	140A			157A		
General Parameters						
Cabinet size(w*d*h)mm	2991*2436*2591	6058*2436*2591	12192*2436*2591	2991*2436*2591	6058*2436*2591	12192*2436*2591
Weight	≈14.6t	≈32.6t	≈68.7t	≈15.5t	≈34.4t	≈73.6t
Maximum cycle efficiency	≥95%					
IP rating	IP55					
Auxiliary power supply	Self-powered/externally powered					
Anti-corrosion level	C3-C5					
Working humidity range	0% - 100% (no condensation)					
Operating temperature range	-30 °C - 50 °C (> 45 °C derating)					
Maximum working altitude	2000 m					
Battery cabinet cooling method	Smart liquid cooling					
Fire safety configuration	Smoke detectors,temperature detectors,aerosol fire extinguishers,pressure relief valves PACK level fire protection,cluster level fire protection,water fire protection,automatic pressure relief					
Communication	Ethernet, 485, CAN					
Communication protocol	Modbus TCP/IP					

Technical Parameter Table Of AC And DC Energy Storage Containers (Battery Below DC1000V + AC400V AC PCS)

MODEL	10FT-1075KWH 500KW	20FT-2580KWH 500KW	40FT-6450KWH 1000KW	10FT-1205KWH 500KW	20FT-2893KWH 500KW	40FT-6511KWH 1500KW
DC System						
Battery cell type	Lithium ion phosphate					
Battery cell specification	3.2V280AH			3.2V314AH		
System battery configuration	240S5P	240S12P	240S30P	240S5P	240S12P	240S27P
Battery capacity	1075kWh	2580kWh	6450kWh	1205kWh	2893kWh	6511kWh
Maximum power	1075KW	2580KW	6450KW	602KW	1446KW	3255KW
Maximum current	1400A	3360A	8400A	700A	1884A	4239A
Battery rated voltage	768V			768V		
Battery voltage range	672V-864V			672V-864V		
Battery Cluster						
Battery configuration	240S1P			240S1P		
Battery capacity	215.040kWh			241.152kWh		
Maximum power	215KW			241KW		
Maximum current	280A			157A		
Battery rated voltage	768V			768V		
Battery voltage range	672V-864V			672V-864V		
Battery Module						
Battery configuration	48S1P			48S1P		
Battery capacity	43.008kWh			48.304kWh		
Maximum power	43KW			48KW		
Maximum current	280A			157A		
Battery rated voltage	153.6V			153.6V		
Battery voltage range	133.4V-172.8V			133.4V-172.8V		
AC (on-grid and off-grid)						
Maximum power (kVA)	550KVA	1100KVA	1100KVA	550KVA	1100KVA	1650KVA
Active power (kW)	500KW	1000KW	1000KW	500KW	1000KW	1500KW
Rated current (A)	722A	1444A	1444A	722A	1444A	2166A
Rated voltage (V)	AC400V					
Voltage range	AC340V-AC460V					
Rated frequency	50Hz/60Hz					
THDI	3%					
Power factor	>0.99 (rated power)					
AC standard	Three-phase four-wire + ground wire (3W+N+PE)					
Overload capacity	110%					
PV Side (optional)						
Maximum power	600KW/660KW	600KW/660KW	1200KW/1320KW	600KW/660KW	600KW/660KW	1800KW/1980KW
	/720KW	/720KW	/1440KW	/720KW	/720KW	/2160KW
PV voltage	DC250V-DC850V					
Load Uninterrupted (STS) (Some are optional, some are standard)						
STS power	500KW	1000KW	1000KW	500KW	1000KW	1500KW
STS voltage	400V 50HZ/60HZ					
Overload power	110%					
Switching time	<20mS					
System Operation Strategy						
Functionality	Anti-backflow, black start					
Operation mode selection	Power peak shaving and valley filling, peak and valley arbitrage of electricity prices, photovoltaic priority to save electricity bills, wind power generation priority to save electricity bills, off-grid power supply in remote areas					
Operation scenario	Photovoltaic diesel storage project, wind power diesel storage project, wind photovoltaic diesel storage project, charging pile + energy storage project, online electricity sales project					
General Parameters						
Cabinet dimensions(w*d*h)mm	2991*2436*2591	6058*2436*2591	12192*2436*2591	2991*2436*2591	6058*2436*2591	12192*2436*2591
Weight	≈14.8t	≈29.8t	≈69.2t	≈15.6t	≈34.8t	≈71.2t
Maximum cycle efficiency	≥95%					
IP rating	IP55					
Auxiliary power supply	Self-powered/externally powered					
Corrosion resistance level	C3-C5					
Working humidity range	0% - 100% (no condensation)					
Working temperature range	-30 °C - 50 °C (> 45 °C derating)					
Maximum working altitude	2000 m					
Battery cabinet cooling method	Smart liquid cooling					
Fire safety configuration	Smoke detectors, temperature detectors, aerosol fire extinguishers, pressure relief valves ,PACK level fire protection, cluster level fire protection, water fire protection, automatic pressure relief					
Communication	Ethernet, 485, CAN					
Communication protocol	Modbus TCP/IP					

Technical Parameter Table Of DC Energy Storage Container

Below DC1500V (Adapted to AC690V AC side)

(Note that PCS supports AC side and does not support DC side paralleling. This function needs to be considered when matching. For specifications that are not in the list, please technical confirmation)

MODEL	10FT-1376KWH	20FT-3440KWH	40FT-4128KWH	10FT-1543KWH	20FT-3858KWH	40FT-8488KWH
DC System						
Cell type	Lithium ion phosphate					
Cell specifications	3.2V280AH			3.2V314H		
System battery configuration	384S4P	384S10P	384S12P	384S4P	380S10P	380S22P
Battery capacity	1376kWh	2064kWh	4128kWh	1543KWh	3858kWh	8488kWh
Maximum power	1376KW	3440KW	1500KW	771KW	3858KW	8488KW
Maximum current	1120A	2800A	1680A	1256A	1570A	3454A
Battery rated voltage	1228.8V			1228.8V		
Battery voltage range	1075V-1382V			1075V-1382V		
Battery Cluster						
Battery configuration	384S1P			384S1P		
Battery capacity	344.064kWh			385.843kWh		
Maximum power	344KW			192KW		
Maximum current	280A			157A		
Battery rated voltage	1228.8V			1228.8V		
Battery voltage range	1075V-1382V			1075V-1382V		
Battery Module						
Battery configuration	48S1P			48S1P		
Battery capacity	43.008kWh			48.304kWh		
Maximum power	43KW			24KW		
Maximum current	280A			157A		
Battery rated voltage	153.6V			153.6V		
Battery voltage range	133.4V-172.8V			133.4V-172.8V		
Battery Cell						
Nominal voltage/capacity	3.2V/280Ah			3.2V/314Ah		
Nominal energy	896Wh			1004.8Wh		
Max. continuous charge and discharge power	896W			502W		
Rated charge and discharge power	448W			502W		
Max. charge and discharge current	280A			157A		
Rated charge and discharge current	140A			157A		
General Parameters						
Cabinet size(w*d*h)mm	6058*2436*2591	6058*2436*2591	12192*2436*2591	2991*2436*2591	6058*2436*2591	12192*2436*2591
Weight	≈14.8t	≈32.4t	≈69.3t	≈15.7t	≈35.3t	≈75.2t
Maximum cycle efficiency	≥95%					
IP rating	IP55					
Auxiliary power supply	Self-powered/externally powered					
Anti-corrosion level	C3-C5					
Working humidity range	0% - 100% (no condensation)					
Operating temperature range	-30 °C - 50 °C (> 45 °C derating)					
Maximum working altitude	2000 m					
Battery cabinet cooling method	Smart liquid cooling					
Fire safety configuration	Smoke detectors, temperature detectors, aerosol fire extinguishers, pressure relief valves					
	PACK level fire protection, cluster level fire protection, water fire protection, automatic pressure relief					
Communication	Ethernet, 485, CAN					
Communication protocol	Modbus TCP/IP					

PCS Booster Integrated Cabin (DC1000V/DC1500V)

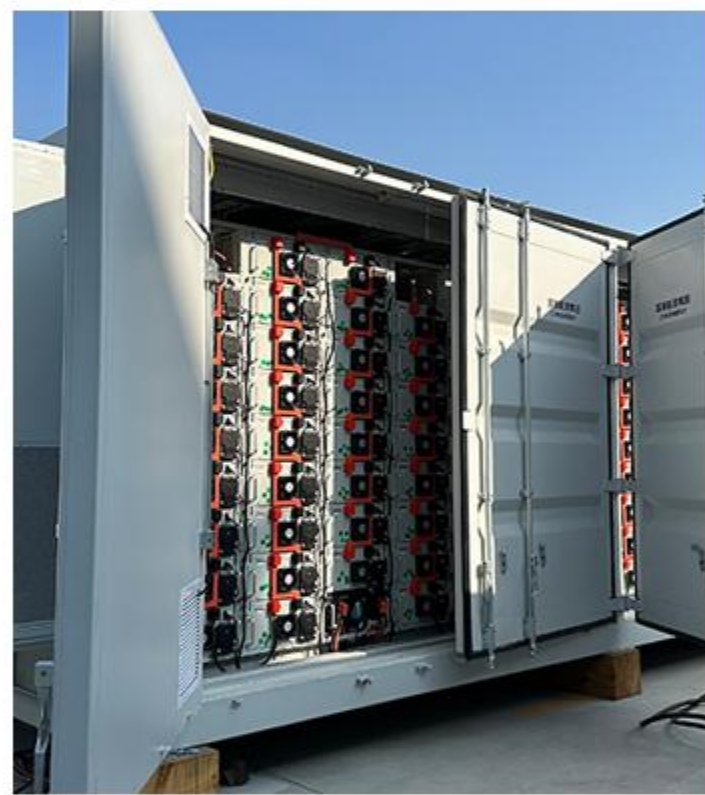
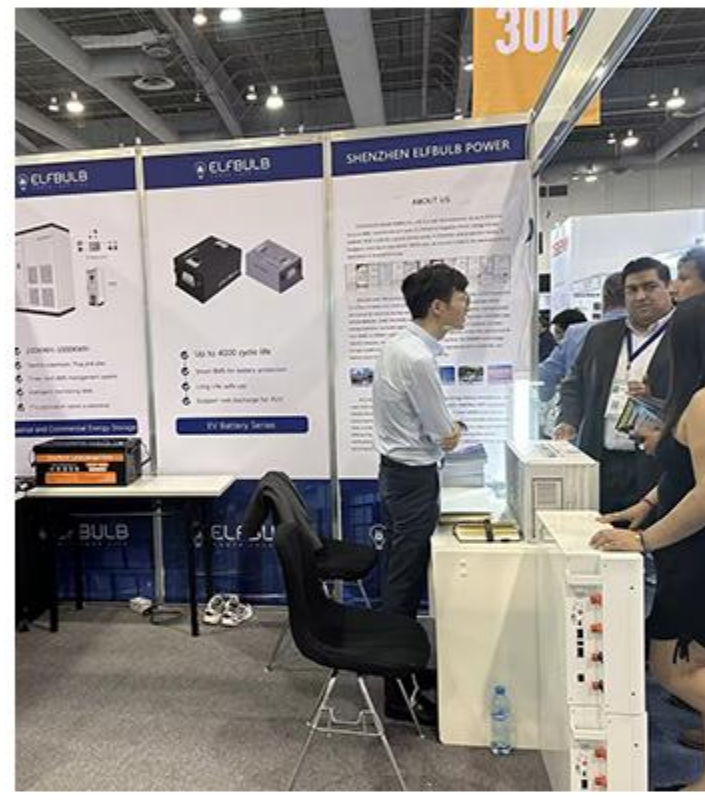
	MODEL	1000KW	2500KW	3000KW	2500KW	3150kW	3450kW	5000kW	6250kW
DC Side Parameters	DC bus maximum voltage	850V			1500V				
	DC side maximum current	1130A*2	1147A*4	1130A*6	2500A/ 1935A*2	1935A*2	1935A*2	2500A*2/ 1935A*4	1935A*4
	DC voltage operating range	580V~850V			1000V~1500V				
	Number of DC input channels	2	4	6	1 / 2	2	2	2 / 4	4
AC Side Parameters	Rated power	1000kW	2500kW	3000kW	2500kW	3150kW	3450kW	5000kW	6250kW
	Branch power*quantity	500kW*2	630kW*4	500kW*6	2500kW*1 1250kW*2	1575kW*2	1725kW*2	2500kW*2 1250kW*4	1563kW*4
	Maximum output power	1100kW	2750kW	3300kW	2750kW	3465kW	3795kW	5500kW	6875kW
	Isolation method	Transformer isolation							
	Reactive power range	0~1050kvar	0~2625kvar	0~3150kvar	0~2625kvar	0~3308kvar	0~3623kvar	0~5250kvar	0~6563kvar
Grid-Connected Operating Parameters	Rated grid voltage	6kV/10kV/35kV etc.							
	Rated grid frequency	50Hz/60Hz							
	Current total harmonic distortion rate	<3%							
	Power factor	-1~1							
Transformer Parameters	Rated capacity	1000kVA	2500kVA	3000kVA	2500kVA	3150kVA	3450kVA	5000kVA	6250kVA
	Transformer type	Dry type/oil-immersed transformer							
	LV/MV voltage	0.4/(6~35)kV			0.69/(6~35)kV				
	No-load loss	Meet national standards							
	load loss	Meet national standards							
	No-load current	Meet national standards							
	Impedance	Meet national standards							
System Parameters	Allowable ambient temp	-30°C~+60°C(>40°C derating)			-30°C~+60°C(>45°C derating)			-30°C~+60°C (>50°C derating)	
	Allowed relative humidity	0~100%							
	Allowed altitude	<5000m (derate above 2000m)			<5000m (derate above 3000m)			<5000m(Derating above 4000m)	
	Protection level	IP54							
	BMS communication interface	RS485							
	EMS communication interface	Ethernet							
	Communication protocol	Modbus RTU/Modbus TCP/IEC104/IEC61850							
	Meet standards	GB/T 34120, GB/T 34133, GB/T 36547							
Grid support	High/low voltage ride-through function, frequency modulation function voltage regulation function, network type function, etc.								

Photovoltaic Inverter And Boost Integrated Cabin

MODEL	European standard/American Standard			
Total power	1MW / 1.25MW	1.5625MW / 2MW	2.5MW / 3.125MW / 4MW	5MW / 6.25MW
Inverter output	800V			800V
Boost output	10kV/35kV			
Transformer winding type	Double winding / double split			
High voltage ring main unit	Contains high-voltage load switch, lightning arrester and protection fuse			
Low-voltage side CT, PT and energy meter	Optional			
Remote monitoring of transformer temperature rise, etc.	support			
35kV Size (width*height*depth)	European standard	5000*2600*2500mm		9000*2800*2600mm
	American Standard	3900*2600*2500mm		7800*2800*2600mm
Weight	European standard	<11000kg	<16000kg	<18000kg
	American Standard	<8500kg	<13000kg	<14000kg

GLOBAL CASES

We would like to take this opportunity to express our heartfelt thanks to every dear customer every time we meet. Your support is our motivation, let us create a better tomorrow together!





Brand Social Media Account

Facebook: Elfbulb Battery

Instagram: elfbulbbattery

Linkdin: Elfbulbpower

Youtube: ELFBULB Battery

Tiktok: solarstorage

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Yuyang New Energy Co., Ltd is a high-tech enterprise established in 2010 that specializes in the R&D, manufacture, and sales of LifePo4 rechargeable lithium energy storage batteries. Our main product categories include home energy storage systems, commercial & industrial energy storage container systems, and low-speed vehicle batteries. As a professional LifePO4 lithium energy storage battery manufacturer, we cooperate with top cell brands and have obtained ISO9001: 2008 and ISO14001: 2004 certifications. Our factory has a production capacity of 20,000 units per month and we retain a safety stock of 8 million USD for battery cells.

