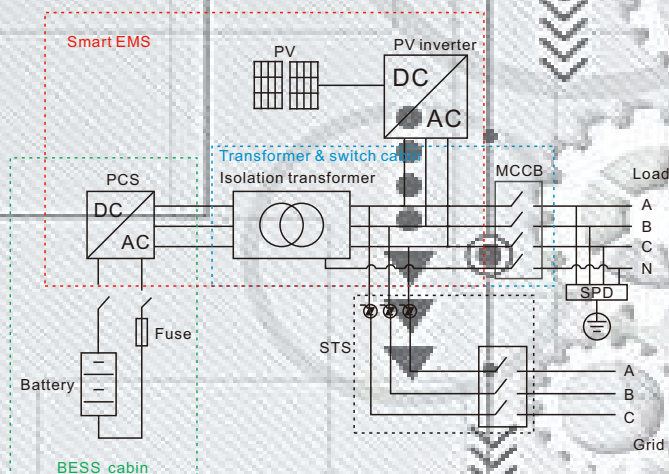




PALMBRI
GREEN ENERGY INDUSTRY

100kw/215kwh Smart C&I BESS + Solar PV System



All-in-one design, integrated battery pack, battery management system BMS, energy management system EMS, modular PCS and fire protection system in one. The system is equipped with transformers and switchgear. The system can be combined with photovoltaic power generation to form a grid-tied solar with energy storage system. Multiple systems can be connected in parallel for flexible expansion. The system is suitable for a variety of applications such as, on-grid/off-grid solar energy and storage system, backup power supply, and solar-diesel-microgrid system.

PB-100-215-S

Battery

Configuration	1P240S
Number of Pack	15
Electrical	
Charging Current	140A
Discharging Current	140A
Rated Capacity	215kWh
Voltage Range	672~864V
Rated Voltage	768V
Rated Power	100kW,0.5P
Auxiliary Power	
Voltage Range	187~253V
Cooling Unit Power	Cooling:3.1KW;Heating:2.0KW
BMS Power	100W
Battery Cabinet	
Protection Grade	Battery:IP66;Control:IP55
Anticorossion	C5
Cooling Mode	Air Cooling

PCS

Basic

Rated Power	100kVA
Overload Capacity	Constant Operation@110%; 1 min@120%
Efficiency	Max. 99%
Power Response	<20ms
Charge/Dischargr Transfer	<50ms
DC	
Max DC Voltage	1000V
DC Voltage Range	600~1000V

DC Voltage Range(100%load)	600~1000V
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AC

Rated Voltage	400V
Rated Current	144A
Max Constant Current	159A
Voltage Range	-15%~+10%
Frequency	50/60±5Hz
THDi	<3%
Wiring Group	3/PE

General

Working Temperature	-40~+60℃
Protection Grade	IP66
Noise	≤70dB
Cooling Mode	Air Cooling

Communication

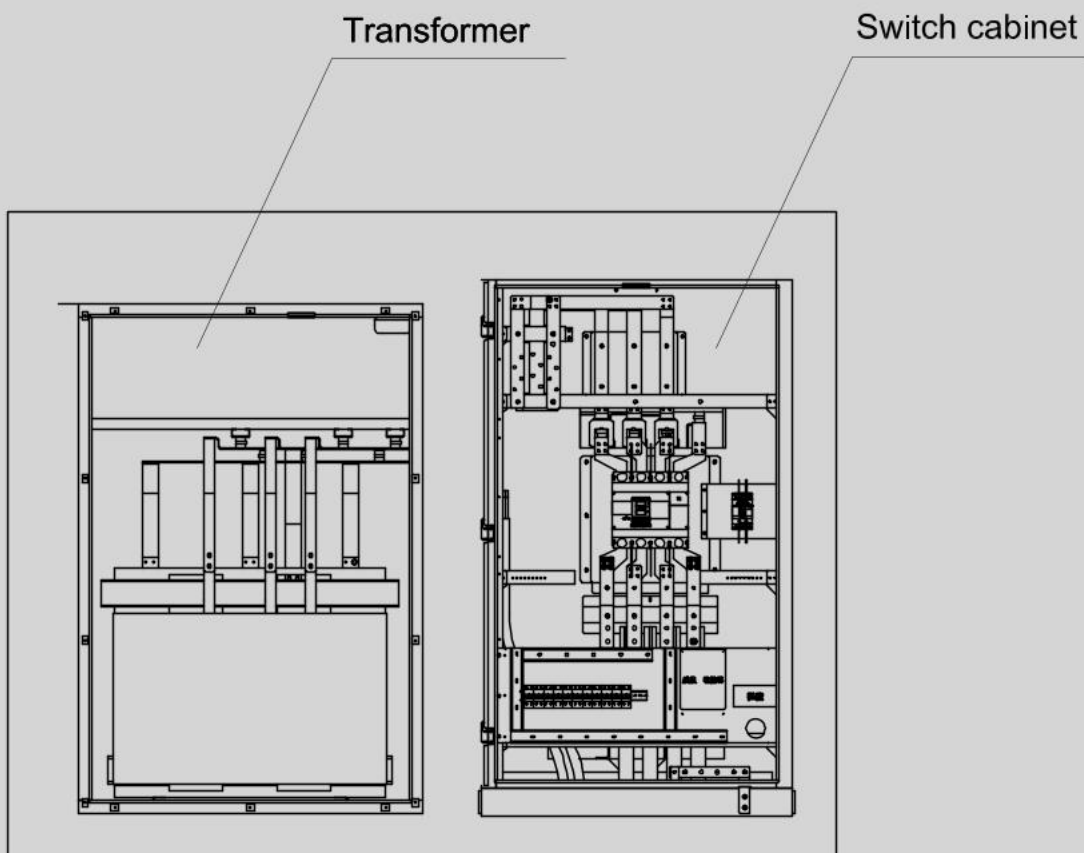
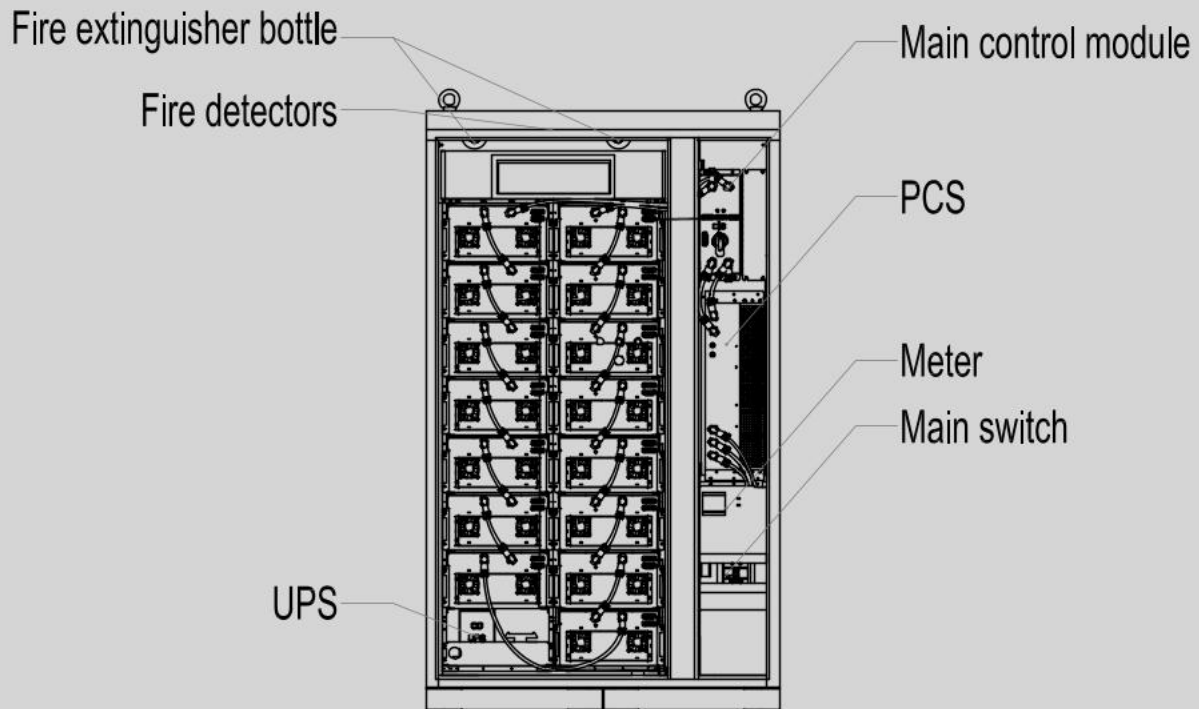
Communication Port	RS485
Communication Protocol	Modbus-RTU;TCP-IP

Installation

Dimensions (W*D*H)	1414*1500*2542mm
Weight	2800kg
Certificate	IEC62477, IEC61000, CEI-016, VDE4110, EN50549, IEC62619

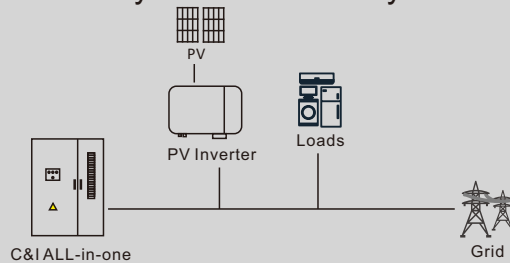
List of Equipment

NO.	Name	Recommended model/ Specifications	QTY	Remark
1	Energy Storage System Cabin	100kW/215kWh	-	See NO. 1.1 to 1.3 for details
1.1	Li-ion Battery	Adopting LFP battery, continuous charging/discharging multiplication rate $\leq 0.3C$, including battery module, switch box, BMS system, etc.	1	
1.2	PCS	Rated power 100kW, output voltage AC400V, three-phase three-wire.	1	
1.3	Cabin	L*W*H: 1414*1500*2542mm, including temperature control system, fire protection system, power distribution system, heat dissipation duct and connecting cables between equipment in the box, IP66	1	
2	Transformer & Switch Cabin	Grid-connected voltage 220V	-	See NO. 2.1 to 2.3 for details
2.1	Transformer	Dry SCB12-125kVA-0.4/0.22kV Dyn11, rated capacity 125kVA	1	
2.2	400V Switch Cabin	220V, 315A	1	
2.3	Cabin	W*D*H: 1150 x 1900 x 2040mm, IP66	1	
3	EMS	-	1	
4	Solar Inverter	Configured based on the capacity requirements	-	Customer's scope of supply
5	PV Panels	Configured based on the capacity requirements	-	Customer's scope of supply



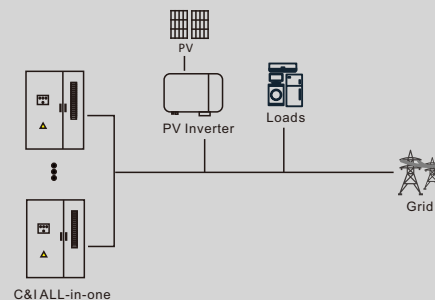
Grid-connected scenario

A grid-connected BESS offers the ability to capture and store electrical energy when the demand is low and provide electricity when the demand is high. This ability allows the business to operate more efficiently and sustainably.



Parallel connection scenario

The BESS connected in parallel allows for easier scalability, additional BESS can be added or removed without affecting the existing system. With the parallel connection, the system is able to have more flexibility in terms of system design and operation.



Microgrid scenario

Combining with solar or diesel generator, the system can become a local energy production and distribution network that can function independently when there is no access to grid.

