CO100K-215E

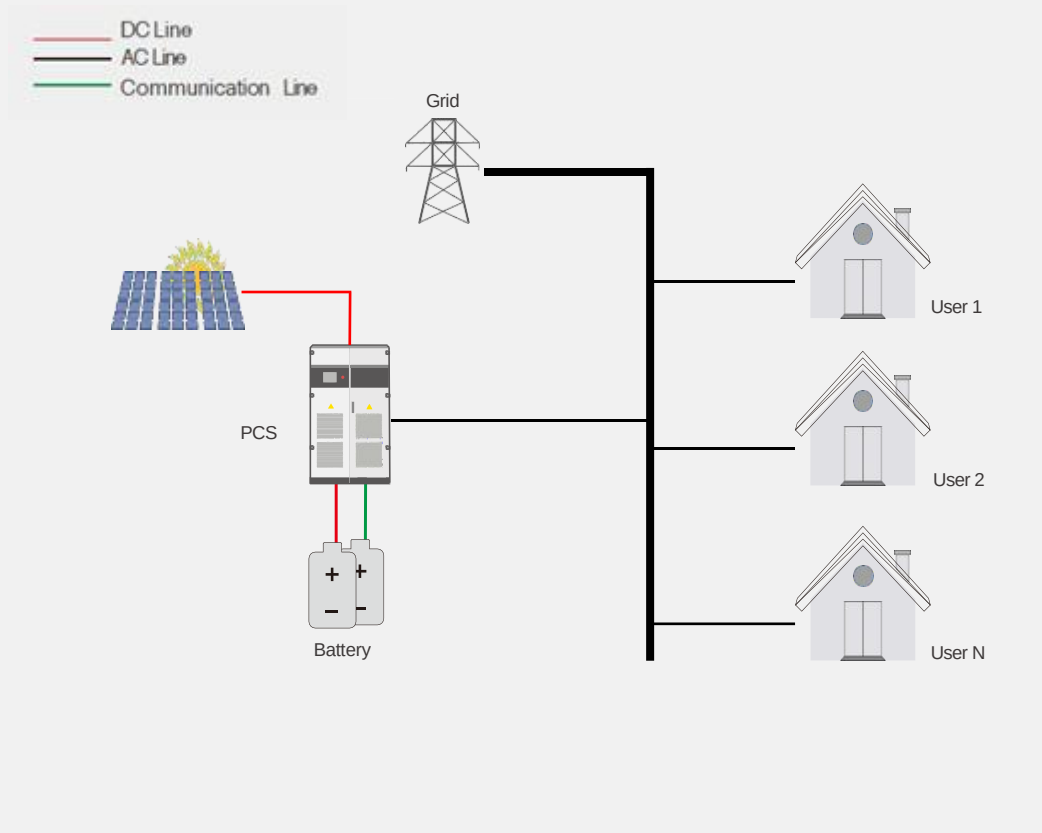
EverPower Commercial & Industrial Solution

01

PART

SINGLE LINE DIAGRAM

Solar Power Solution



- Unified construction, centralized power supply, shared by the whole village
- Unified maintenance to solve the problem of difficult operation and maintenance of residents
- Flexible allocation of capacity to solve the problem of spending a lot of money on laying power grid
- Photovoltaic combined with energy storage can also use electricity at night.

Remote areas will gradually realize shared energy storage(PV+ESS).Unified power supply and maintenance, safer use of electricity. Solve the problem of no electricity available, while saving a lot of the cost of laying the grid.

02

PART

SYSTEM SOLUTION

System Configuration

Backup power solution/Solar power solution/Microgrid solution

CO100K-215E power solution

Item	Model	Specification	Qty.	Picture
Hybrid inverter/PCS	SP100H	100kW Integrated Photovoltaic Storage 400VAC 50Hz 1. Maximum PV input power 60kW; 2. Built-in EMS energy management system; 3. Including STS on/off switch.	1pcs	
Battery bank	ES768-280	7768V 280Ah LiFePO4 Battery pack,including high voltage box, bus copper bar, each battery with 40g fire extinguishing module	1pcs	

System Configuration

Backup power solution/Solar power solution/Microgrid solution

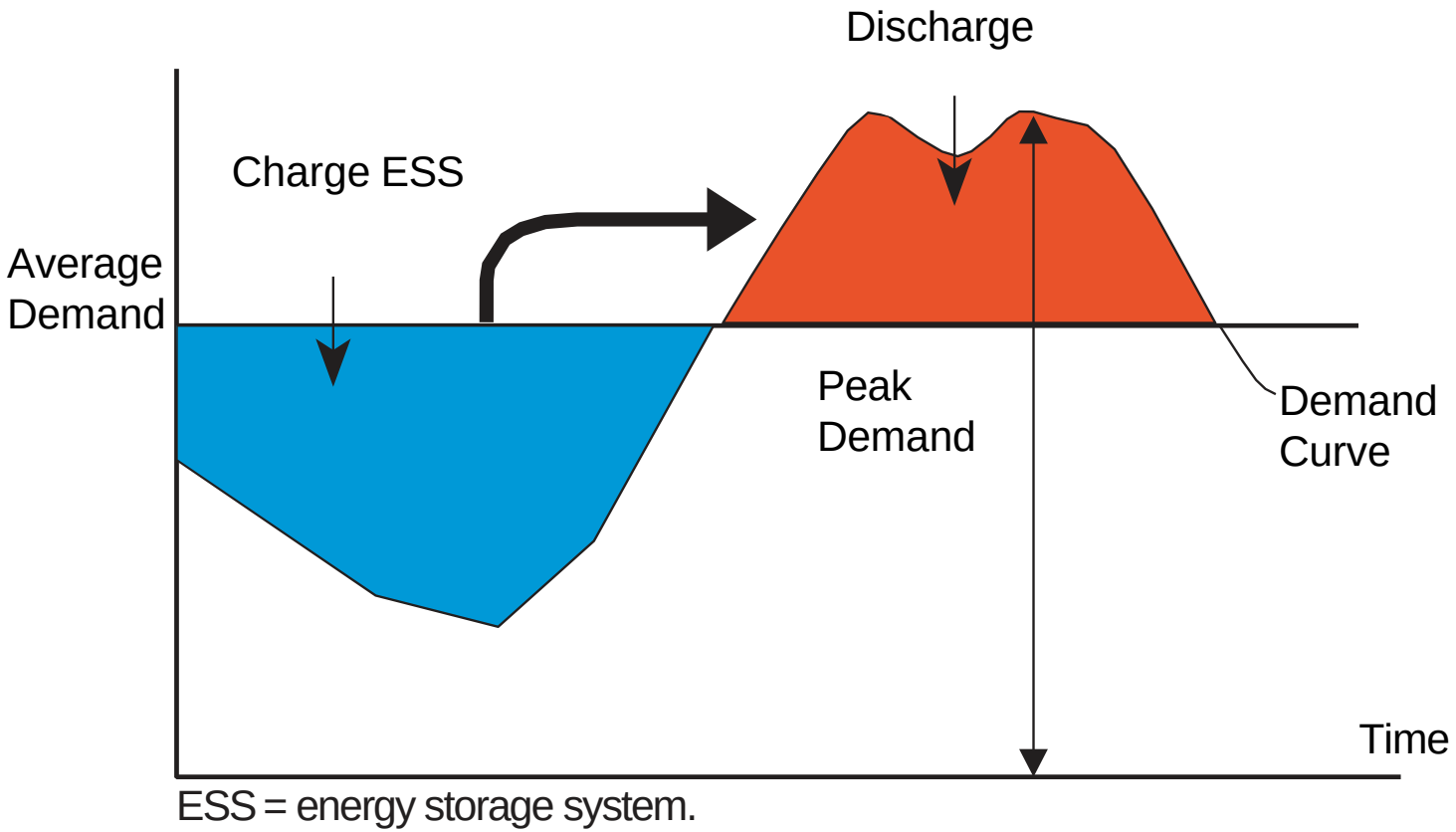
CO100K-215E power solution

Item	Model	Specification	Qty.	Picture
Industrial and commercial energy storage cabinet	/	1. Outdoor cabinet（install PCS and power distribution& lithium batteries); 2. Including AC precision cabinet air conditioning; 3. Includingpower distribution circuit breaker and SPD 4. Plastic-case circuit breaker; 5. Including external display; 6. Including smoke alarms, access control alarms, and water leakage alarms. 7. Including fire module; 8. External alarm indicator and emergency switch;	1pcs	

WORK MODE

Peak-shaving/ Load shifting

Use of Energy Storage Systems for Peak Shaving



Route 1

1. Set a maximum of 20 time periods
2. Set the charge and discharge power

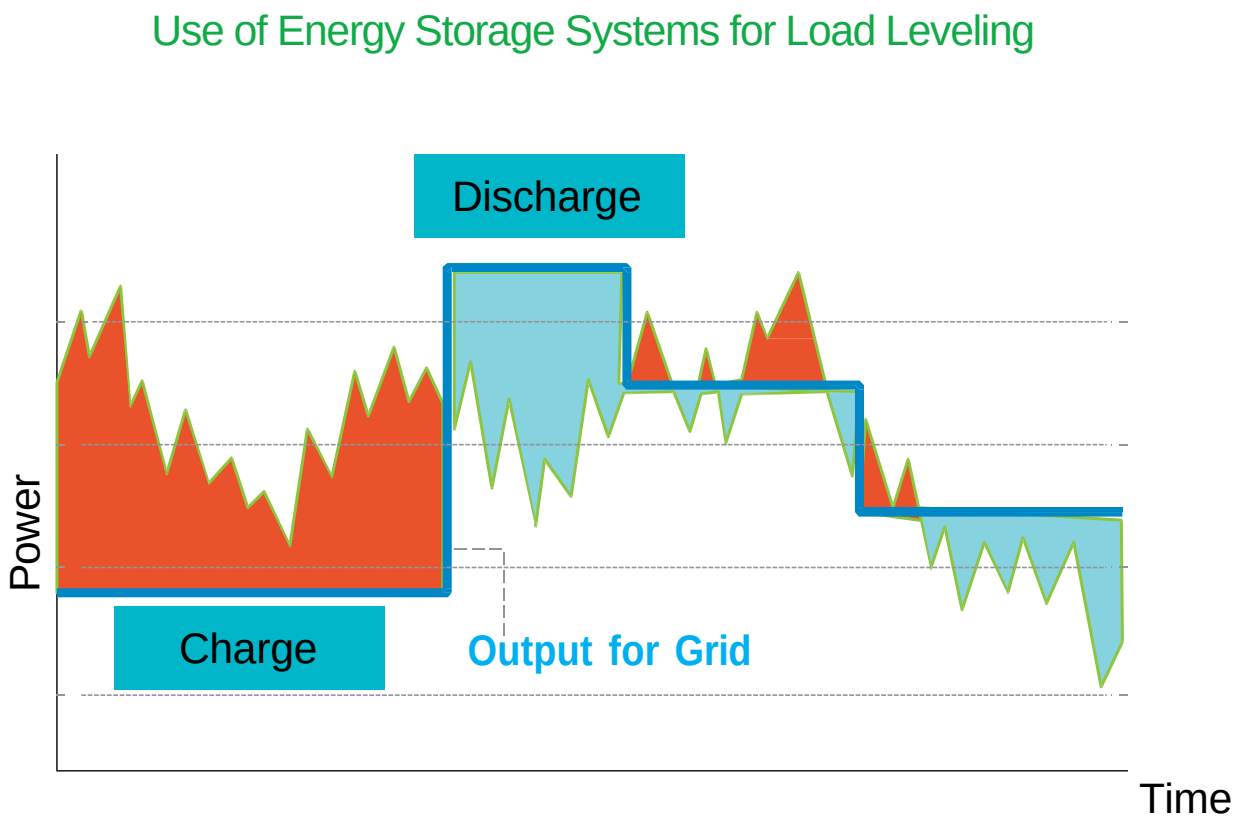
Route 2

1. With EMS, develop automatic tracking strategy

2. The system charges the battery during low load periods and discharges during peak load periods

Replacing/delaying transformer upgrades

Profit from electricity price difference



Route

1. Set a maximum of 20 time periods
2. Setting discharge during high electricity prices
3. Setting up charging at low electricity prices
4. Set charging and discharging power

When prices are low, the grid is used to charge the battery, and when prices are high, the battery's power is sold to the grid

Peak valley price arbitrage

Demand Charge Management

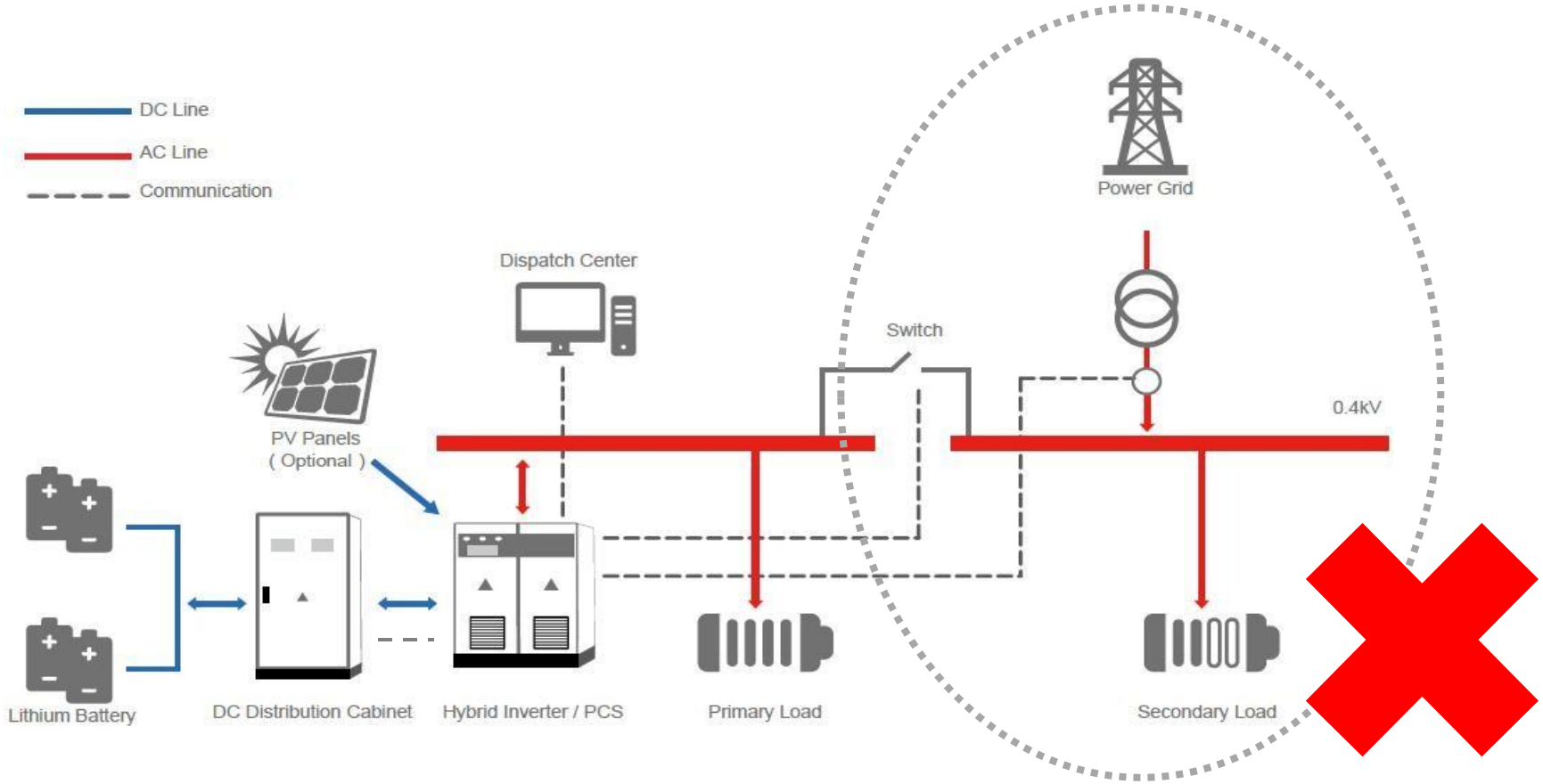
Route

1. Smart meters read power from the grid
2. PCS limiting grid power
3. Battery discharge, reducing peak value

EMS customizes a dynamic real-time response control strategy, adjusts energy storage charging and discharging, and operates completely autonomously

Save on basic electricity bill

Backup power



When the mains power failure, the important load can still work normally

Ensure that important loads are not powered off

04

PART

PRODUCT SPECIFICATION

Hybrid inverter/PCS

NO	Items	Specifications
Product specification		
1	AC output power	100KW
2	Rated voltage	400VAC
3	Frequency	50/60Hz
4	AC connection	3W+N+PE
5	Overload capacity	150%
6	Max.DC voltage	950V
7	Max.DC power	110KW
8	DC voltage range for nominal power	600-900V
9	Mac Ac current	160A
10	Max. Ac power	125KW
11	Dimension	720*220*440mm
12	Weight	48kg

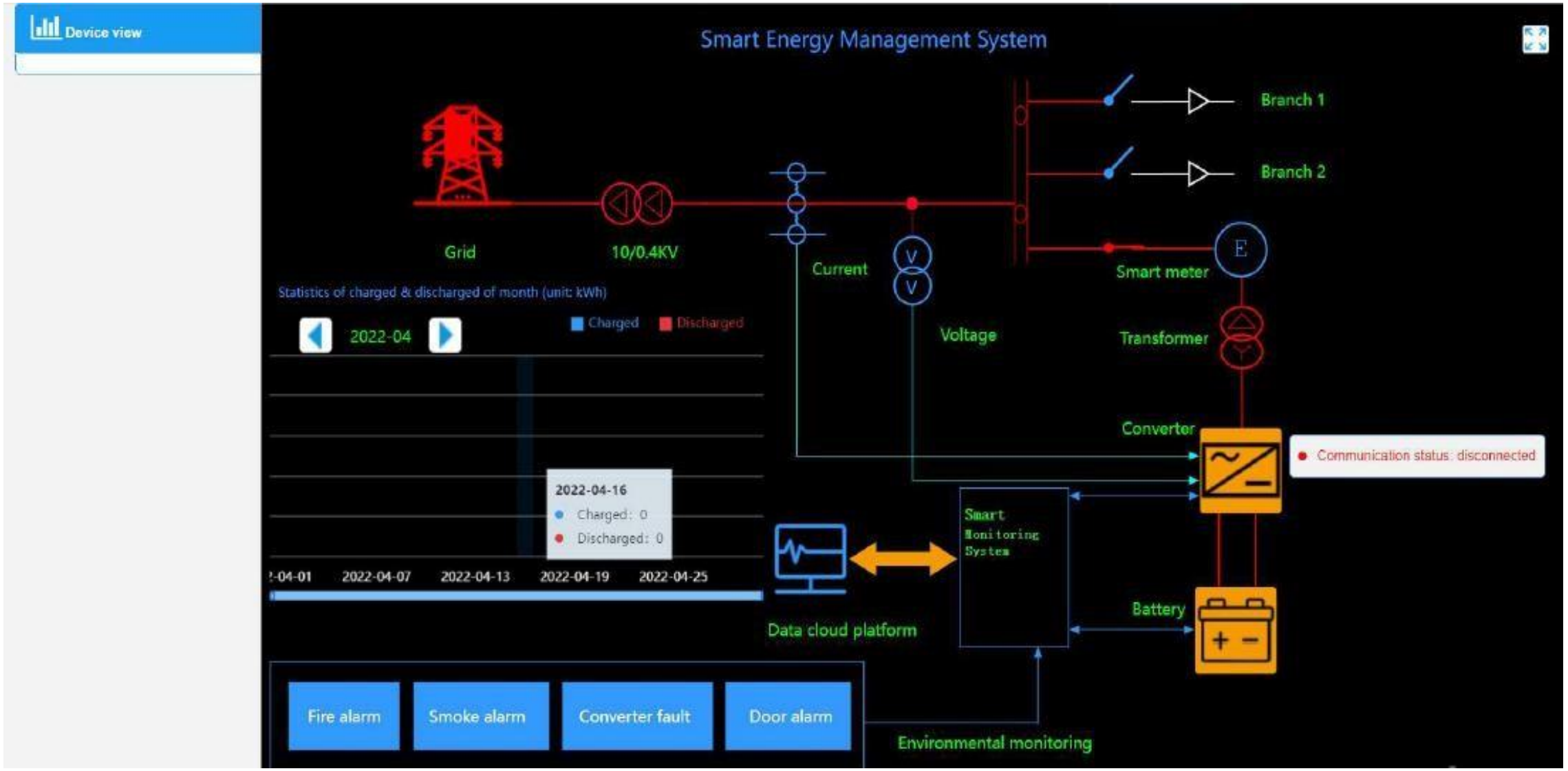
SP100H microgrid energy storage inverter is a high-efficiency, high-protection energy storage inverter developed mainly for medium and large energy storage microgrids. It supports multiple units in parallel operation, supports diesel engine hybrid operation, and supports on-grid and off-grid mode.

Battery cluster

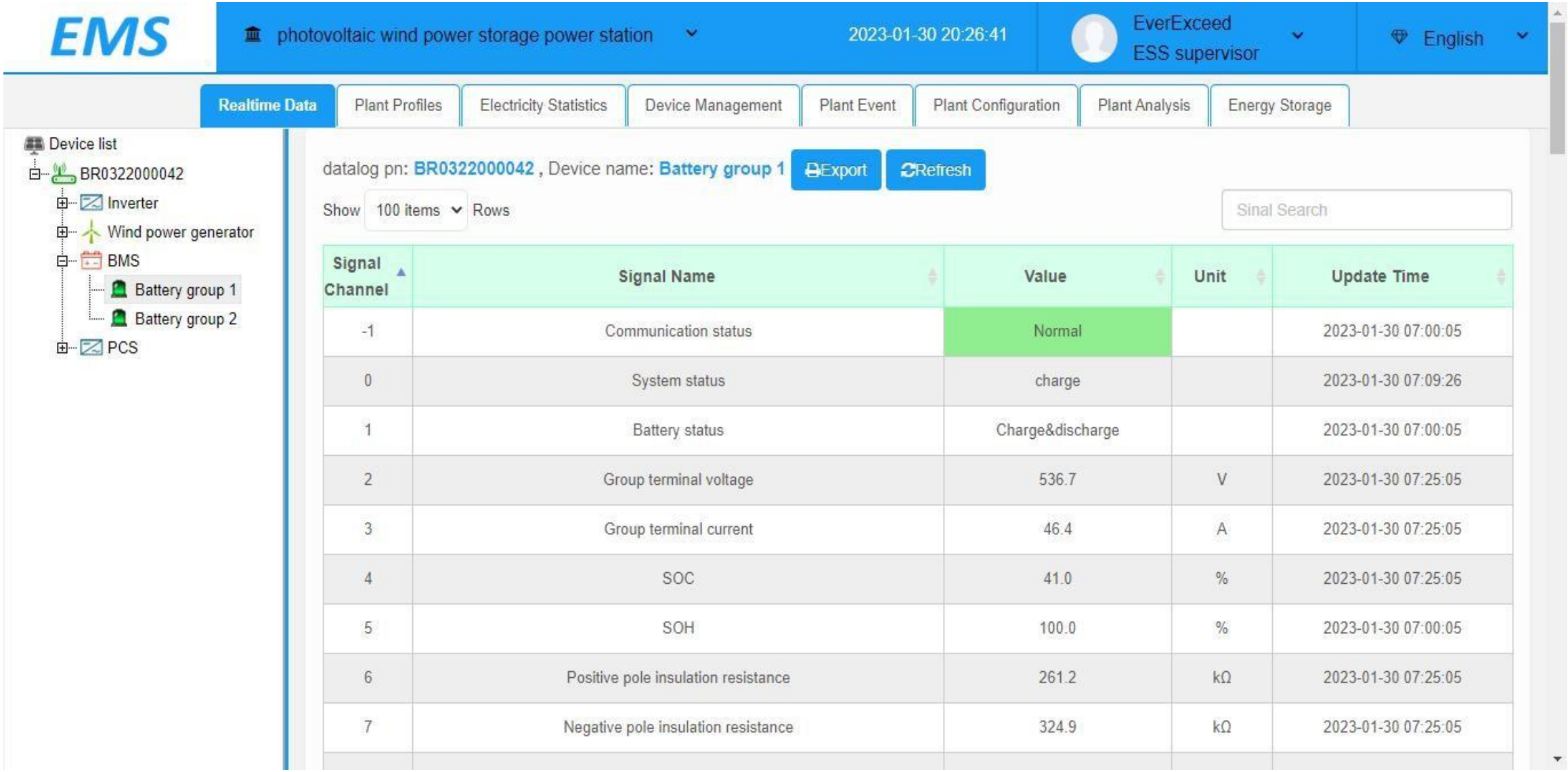
NO	Items	Specifications
1	rated voltage	768V
2	Battery cluster voltage range	672 V ~ 864V
3	Nominal capacity of battery cluster	280AH
4	Design discharge rate	0.71C
10	operating temperature range	0 ~ 60℃
11	humidity	0-70%

BCU can collect the voltage, current and temperature of each battery module, perform overvoltage, undervoltage and overcurrent protection functions, and receive the battery cell information uploaded by BMU to BCU.

Energy Management System

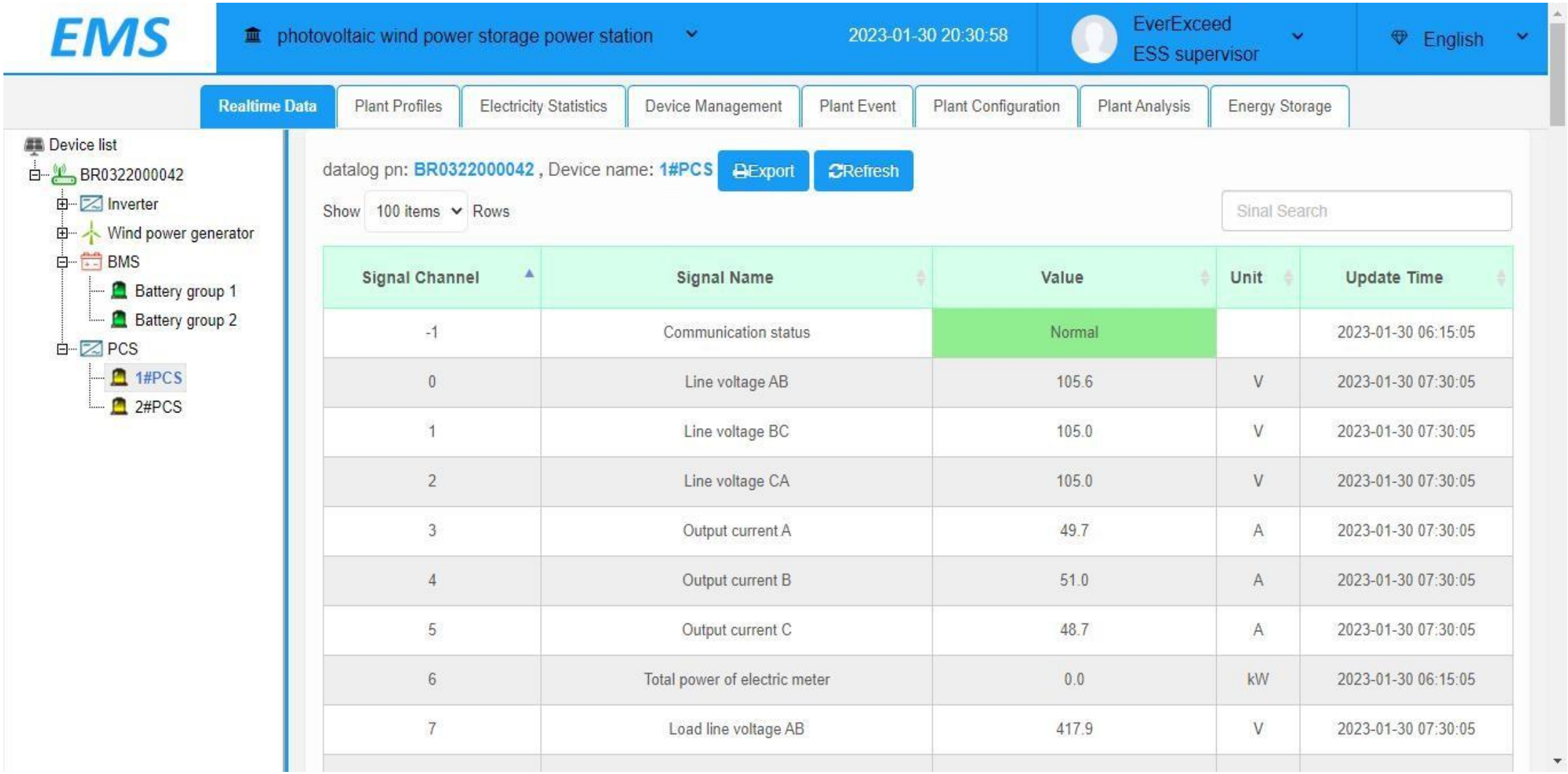


Energy Management System



Signal Channel	Signal Name	Value	Unit	Update Time
-1	Communication status	Normal		2023-01-30 07:00:05
0	System status	charge		2023-01-30 07:09:26
1	Battery status	Charge&discharge		2023-01-30 07:00:05
2	Group terminal voltage	536.7	V	2023-01-30 07:25:05
3	Group terminal current	46.4	A	2023-01-30 07:25:05
4	SOC	41.0	%	2023-01-30 07:25:05
5	SOH	100.0	%	2023-01-30 07:00:05
6	Positive pole insulation resistance	261.2	kΩ	2023-01-30 07:25:05
7	Negative pole insulation resistance	324.9	kΩ	2023-01-30 07:25:05

Energy Management System



Signal Channel	Signal Name	Value	Unit	Update Time
-1	Communication status	Normal		2023-01-30 06:15:05
0	Line voltage AB	105.6	V	2023-01-30 07:30:05
1	Line voltage BC	105.0	V	2023-01-30 07:30:05
2	Line voltage CA	105.0	V	2023-01-30 07:30:05
3	Output current A	49.7	A	2023-01-30 07:30:05
4	Output current B	51.0	A	2023-01-30 07:30:05
5	Output current C	48.7	A	2023-01-30 07:30:05
6	Total power of electric meter	0.0	kW	2023-01-30 06:15:05
7	Load line voltage AB	417.9	V	2023-01-30 07:30:05

Advantages

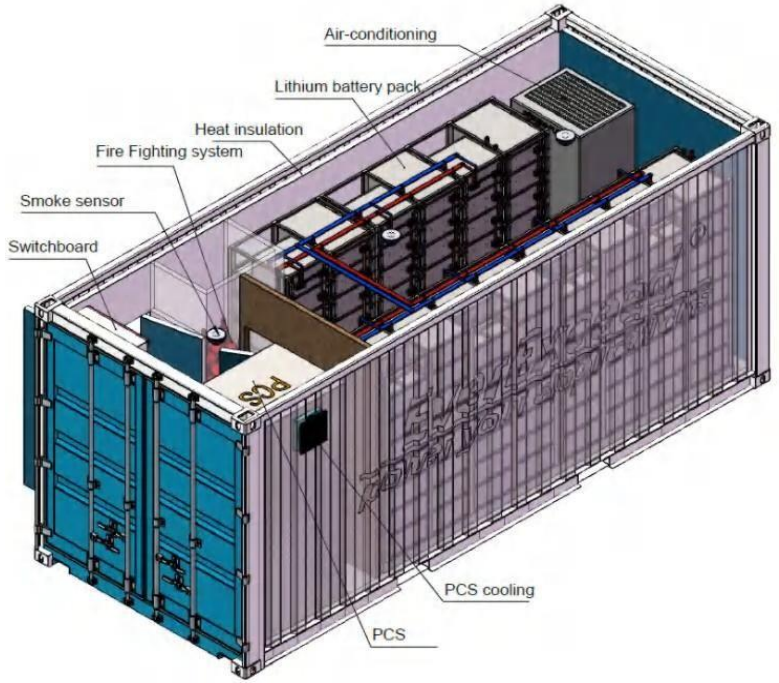
Integrated solution
Highly integrated PCS, Battery, EMS and all accessories, it can be expanded PV input.

Easy to use
Multiple working modes programmable, seamless conversion from grid connection to grid, minimizing solar energy waste

Safe and reliable
Comprehensive protections to protect inverter as well as battery, high quality output power.

Smart O&M
Modbus and CAN protocol for remote monitoring and management.
Wide output power range & huge energy storage
Output Power：30kW~500kWEnergy Storage Capacity: 50kWh~1MWh

Flexible
The system is flexible and can be deeply customized, and any unit can be increased or decreased.



High-quality after-sales service

20 years of system integration experience

Preferential price

Precise customization

Highly integration

Rich practical cases

REFERENCE CASES

CASE

30kw-100kwh

30kw-100kwh

50kw-150kwh

CASE

50kw-200kwh

500kw-1000kwh

250kw-1000kwh

Welcome to consultation

THANK YOU