250KW/500KWH

Energy Storage System

SPECIFICATION

1.Product Introduction

1.2. Product Function

The 250KW/500KWH Energy storage system consists of an Solar & Energy Storage System and five battery cabinets, integrating storage batteries, modular PCS, DC/DC modules, energy management monitoring system and power distribution system. The modular PCS is easy to maintain and expand. The outdoor energy storage cabinet adopts front-loaded maintenance, which can reduce the footprint and maintenance access. Features safe and reliable, rapid deployment, low cost, high energy efficiency and intelligent management.

Common application scenarios and operation strategies are as follows:

Grid-connected mode:

- The energy storage converter can be connected to the battery, photovoltaic or other DC sources, and can convert AC/DC power modules into AC power and be connected to the grid. It can achieve the following functions: storing energy to realize peak shaving and valley filling, and profit from price difference arbitrage; generating photovoltaic power and selling electricity for profit.

Off-connected mode:

- Real-time acquisition of local load power, photovoltaic power generation priority is self-generation and self-use, and surplus electricity storage; When the power generated by photovoltaic power generation is insufficient to provide local load, the battery storage is prioritized.

1.3. Electrical Wiring Diagram

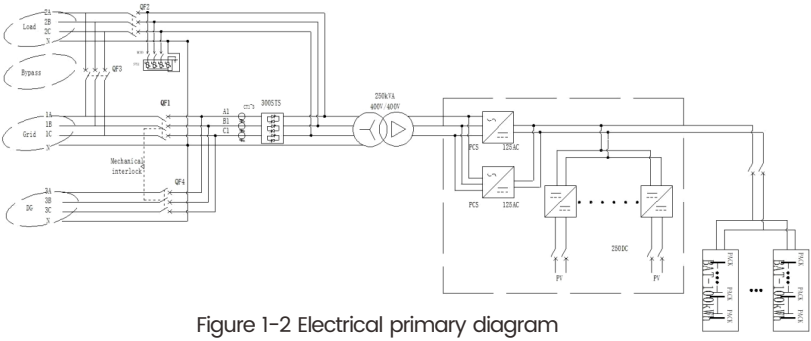


Figure 1-2 Electrical primary diagram

Description:

- **The system solution with grid-connected and off-grid modes, isolation transformer, and oil-engine input is equipped with different configurations for different projects, and the circuit may vary slightly. The actual drawings for shipment shall prevail.**

1.4. Product Features

- The 250KW/500KWH energy storage inverters adopt advanced digital control technology and are equipped with the independently developed microgrid management system, which optimizes control performance and improves system reliability to meet the needs of multiple application scenarios. Its performance characteristics are as follows:
- can accept grid dispatching and has functions such as primary frequency/voltage regulation and black start.
- There are indoor and outdoor cabinet types to meet the needs of various installation sites.
- Modular rack-mounted design, flexible configuration, easy expansion and maintenance.
- The power module adopts a three-level circuit design, which has high conversion efficiency and improves power utilization.
- The local control panel can achieve diversified functions such as converter operation monitoring, energy management strategy development, equipment remote upgrading, etc.

1.5. Product Parameters

- The following are typical configuration parameters for the 250KW/500KWH energy storage inverters. Actual delivery shall be subject to technical agreement.

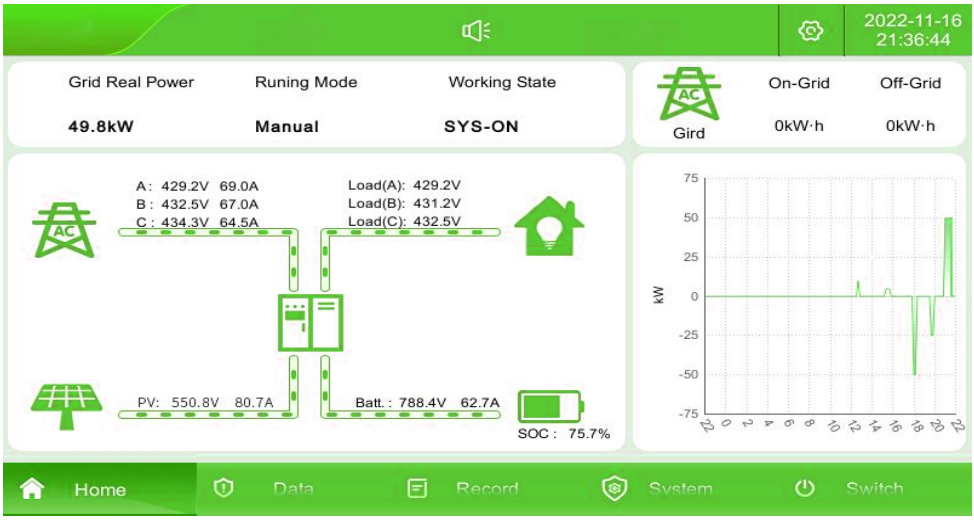
Table 1-1 Solar&Energy Storage System Parameters

Model	DC250KW
Grid port	
Rated power	250kW
Max.power	275kW
Rated current	361A
Max.current	400A
Rated voltage	400Vac,3W+N+PE
Rated frequency	50Hz(±5Hz)
Photovoltaic(PV) port	
Max.PV input voltage	Minimum battery voltage -30V
Max.PV input power	250kW
MPPT quantity	1/5/10
General Parameters	
Degree of protection	IP55
Protective Class	/
Power Factor	-1leading to+1 lagging
THDU	<3%(Rated power)
Isolation mode	Transformer isolation
Shutdown self-discharge	<0.1%Rated Power(Without transformer)
Display	LCD
Relative humidity	0 ~ 95% (No condensation)
Noise	<78dB
Ambient temperature	-25°C to +60°C(Derating above 45°C)
Cooling mode	Intelligent air-cooled
Altitude	3000m (> 2000m reduction)
BMS Communication	CAN
EMS Communication	Rs485 / CAN/Ethernet
Dimensions(W*D*H)	1300*1000*2300mm
Weight (approx.)	2150kg

Model	5*100kWh
Battery rated capacity	5* 100kWh
Battery rated voltage	844.8V
Battery voltage range	739.2V~950.4V
Battery type	Lithium iron phosphate battery (LFP)
Battery cell capacity	120Ah
Series of Battery	1P*24S*11S
Rated charging rate	1P
Degree of protection	Ip55
Operating ambient temperature	-20~50°C
Storage Temperature	-40~50°C
Cooling mode	Air cooling
Altitude	3000m (>2000m reduction)
Dimensions (W*D*H)	1300*1030*2300mm
Weight (approx.)	1500kg

1.6. Display Interface Introduction

- The home screen displays real-time power, voltage, current, generated energy, operating mode, and work status information.



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1.7. Appearance Diagram