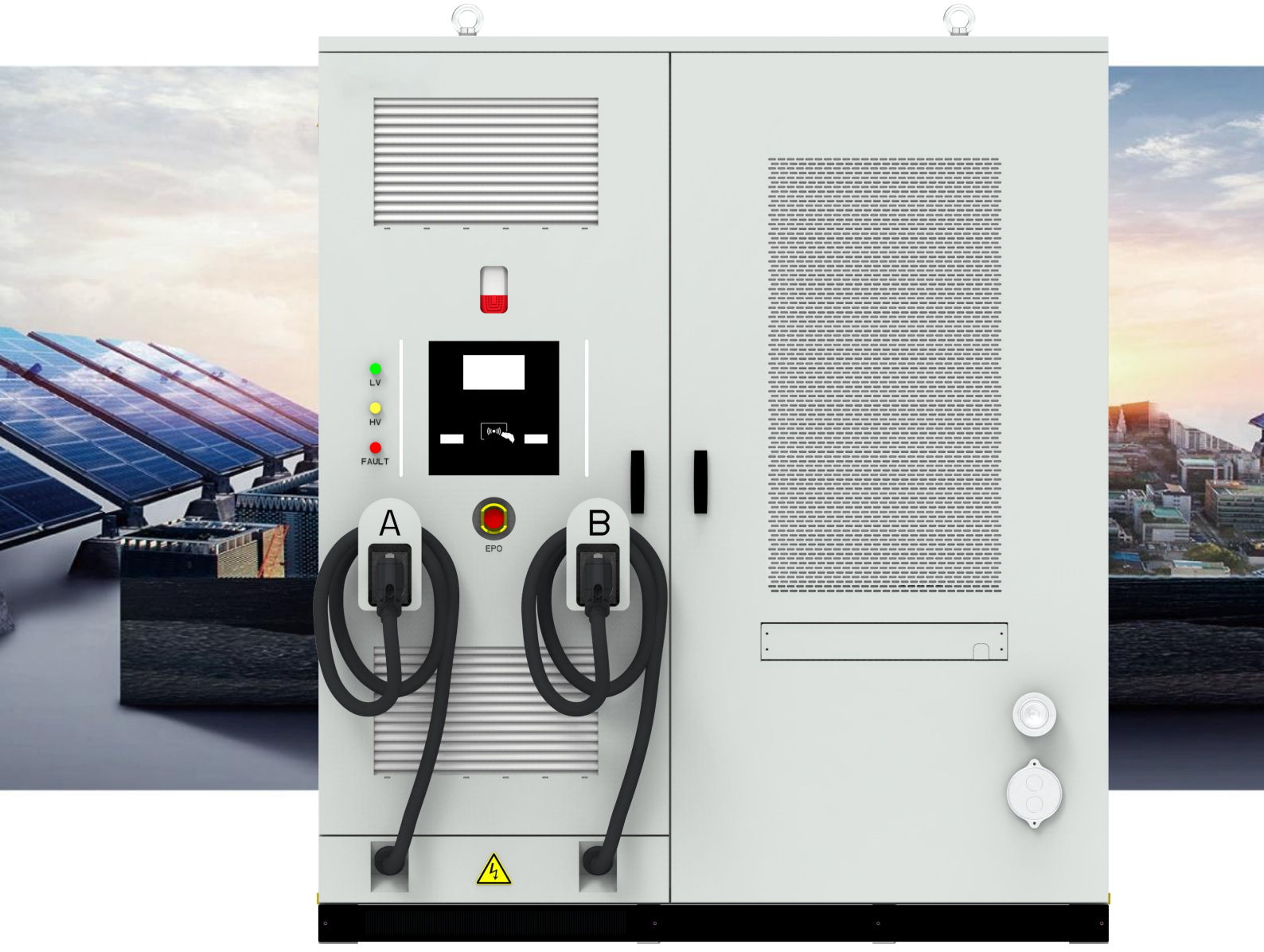
FarAmp

Outdoor Cabinet ESS For PV Storage & Charging

SPECIFICATION



1. Product Introduction

1.1. Model Description

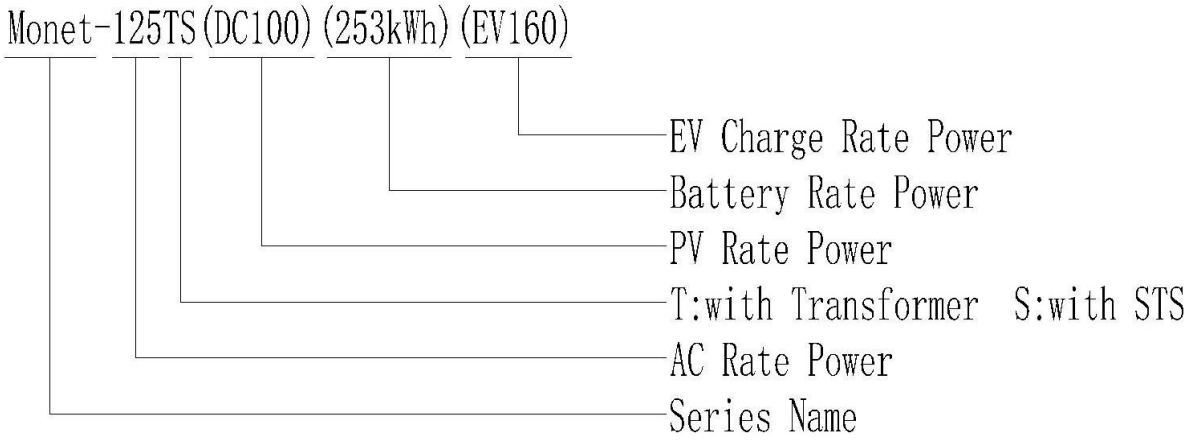


Figure1-1 Model identification

1.2. Product Function

The Monet series of outdoor energy storage cabinets integrates energy storage batteries, modular PCS, PV DC modules, charging modules, energy management and monitoring systems, power distribution systems, environmental control systems and fire control systems. The use of modular PCS facilitates maintenance and expansion, whilst the front-access design of the outdoor cabinets reduces the footprint and maintenance access requirements. The system is characterised by safety and reliability, rapid deployment, low cost, high energy efficiency and intelligent management.

The operation strategies of the optical storage and charging system under common application scenarios are as follows:

- Prioritise charging the EV charging point with PV power; any surplus PV power is used to charge the battery;
- When PV power is insufficient, the EV charging point is powered by a combination of PV and battery power;
- When all available power sources are insufficient to meet the EV charging point’ s demand, the charging point’ s power output is limited.

1.3. Electrical Wiring Diagram

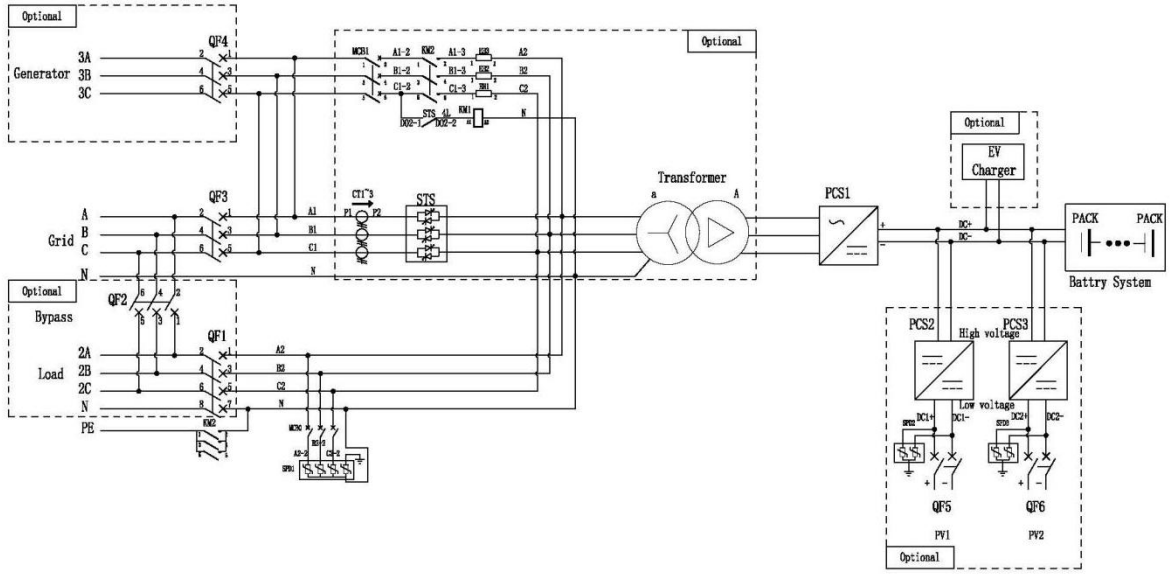


Figure1-2 Electrical Primary Diagram

Description:

- **The actual one should be subject to the attached drawing of the shipment.**

1.4. Product Features

- Integrated design: Integrates photovoltaic power generation, energy storage and charging functions, enabling self-generation and self-consumption to reduce electricity costs.
- Dual-path MPPT: Maximum Power Point Tracking ensures that DC power from the photovoltaic system is fed directly into the energy storage system for charging, minimising losses.
- Power supply assurance: During mains power outages, the system automatically switches seamlessly between grid-connected and off-grid modes to ensure power supply to critical loads.
- Fast-charging compatibility: Dual-port DC fast-charging design supports simultaneous fast charging of two vehicles.
- Safety protection: IP55 protection rating combined with air-cooled heat dissipation, featuring comprehensive active safety measures and fire- and explosion-proof design.
- Flexible solutions: Modular design allows different functional modules to be combined to meet the needs of various scales and scenarios.

- Intelligent management: The local control panel enables a range of functions, including system operation monitoring, formulation of energy management strategies and remote equipment upgrades.

1.5. Product Parameters

The following are typical configuration parameters of the Monet series Outdoor Cabinet ESS For PV Storage & Charging system. Actual delivery shall be subject to the technical agreement.

Table1-1 Outdoor Cabinet ESS For PV Storage & Charging Parameters

Model	***Monet-125TS(DC100)(253kWh)(EV160)***
Grid port	
Rated AC power	*125kW*
Max.AC power	*137.5kW*
Rated current	*180A*
Max.current	*198A*
Rated voltage	*400Vac，3W+PE*
Rated frequency	*50/60Hz（±5Hz)*
PV port	
PV input power	*100kW*
Max.PV input voltage	*250V~685V*
PV Max.current	*160A*2*
MPPT channels	*2*
Battery port	
Battery rated capacity	*253kWh*
Battery rated voltage	*806.4V*
Battery type	*Lithium iron phosphate battery (LFP)*
Battery cell capacity	*314Ah*
Series of Battery	*1P*18S*14S*
Maximum charge and discharge current	*157A*
EV Charger	
Charger connector	*CCS2*
Output voltage	*150Vdc ~ 1000Vdc*
Rated output power	*160kW*
Maximum output current	*250A*
Authorization	*NFC card swiping*
General Parameters	
Cooling mode	*Air cooling*
Degree of protection	*IP55*
Shutdown self-discharge	*< 0.1%Rated power（Without transformer)*

Relative humidity	*0 ~ 95% (no condensation)*
Noise	*< 75dB*
Ambient temperature	*-25℃ to +60℃(with derating at temperatures above 45℃)*
Altitude	*3000m (> 2000m reduction)*
Display	*LCD*
BMS Communication	*CAN*
EMS Communication	*Ethernet / 485*
Emergency stop protection	*Equipped with emergency stop button, with emergency stop protection function*
*Dimension (W * D * H)*	*2000*1350*2300mm*
Weight (approx.)	*3500kg*