Monet Series

Energy Storage Converter

SPECIFICATION

1. Product Introduction

1.1. Model Description

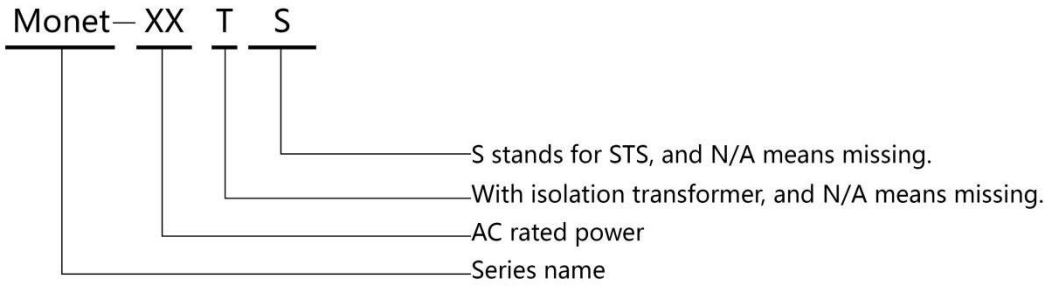


Figure 1-1Model identification

Description:

- **The isolation transformer, S are optional components, and the rated output power can be flexibly configured according to project requirements.**

1.2. Product Function

The Monet series outdoor energy storage cabinet integrates modular PCS, energy management monitoring system, and distribution system. With modular PCS, it is easy to maintain and expand. The outdoor cabinet adopts front maintenance, which can reduce the area and maintenance channel. It has the characteristics of safe, reliable, fast deployment, low cost, high energy efficiency and intelligent management.

Common application scenarios and operation strategies are as follows:

On-grid mode:

- Energy storage converter access to batteries, photovoltaic or other DC sources, through the AC / DC power module converted to AC power into the grid, can be realized: storage battery access to achieve peak shaving, tariff difference arbitrage. Photovoltaic power generation online to realize the profitability of power sales.

Off-grid mode:

- Energy storage converter access to batteries, PV or other DC sources, through the AC / DC power module converted to AC power supply for local loads, the default three-phase voltage of 400Vac, 50Hz.

1.3. Electrical Wiring Diagram

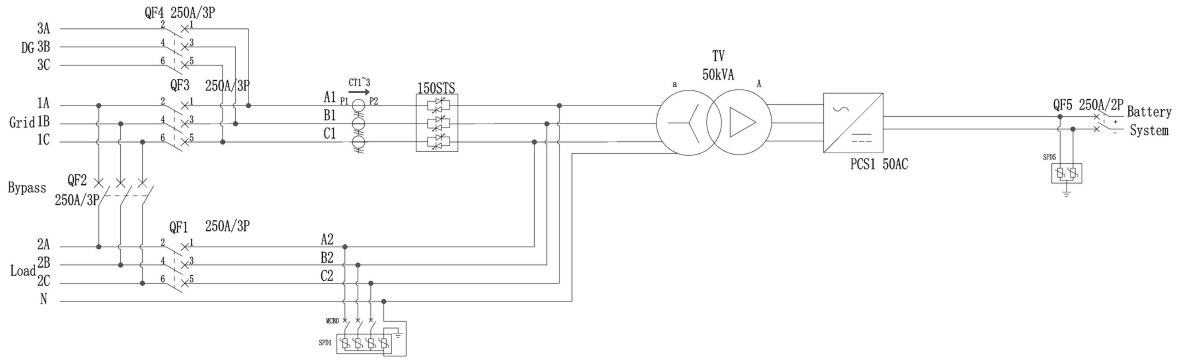


Figure 2-2 Monet-50TSElectrical Primary Diagram

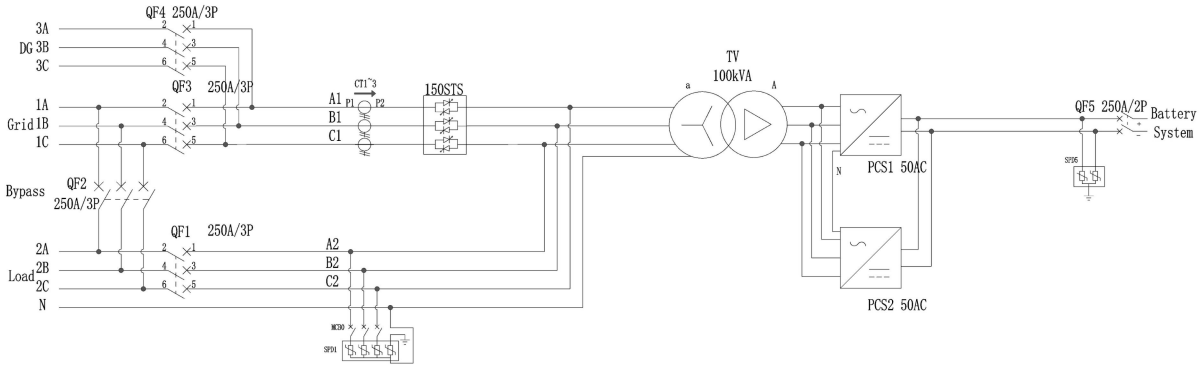


Figure 3-3 Monet-100TSElectrical Primary Diagram

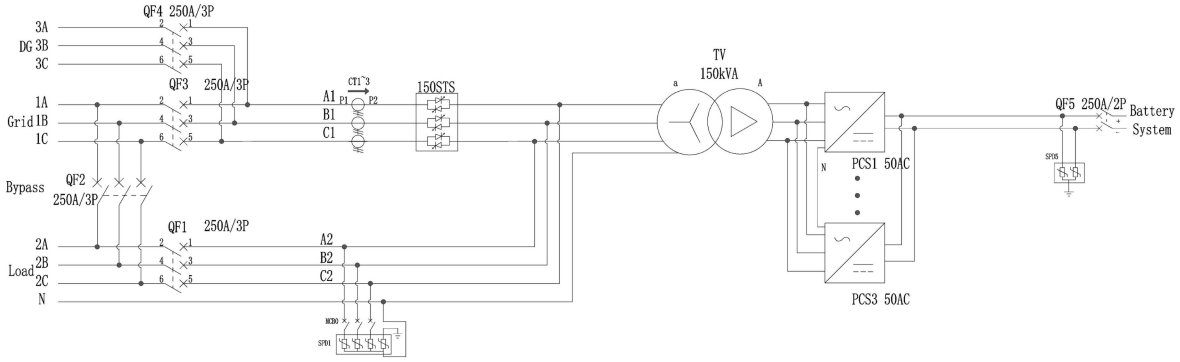


Figure 4-4 Monet-150TSElectrical Primary Diagram

Description:

- **The system solution with grid-connected and off-grid modes, isolation transformer 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 Monet series energy storage converters adopt advanced digital control technology and are equipped with the independently developed Lotus-Pcs 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:

- 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 Monet series energy storage converters. Actual delivery shall be subject to technical agreement.

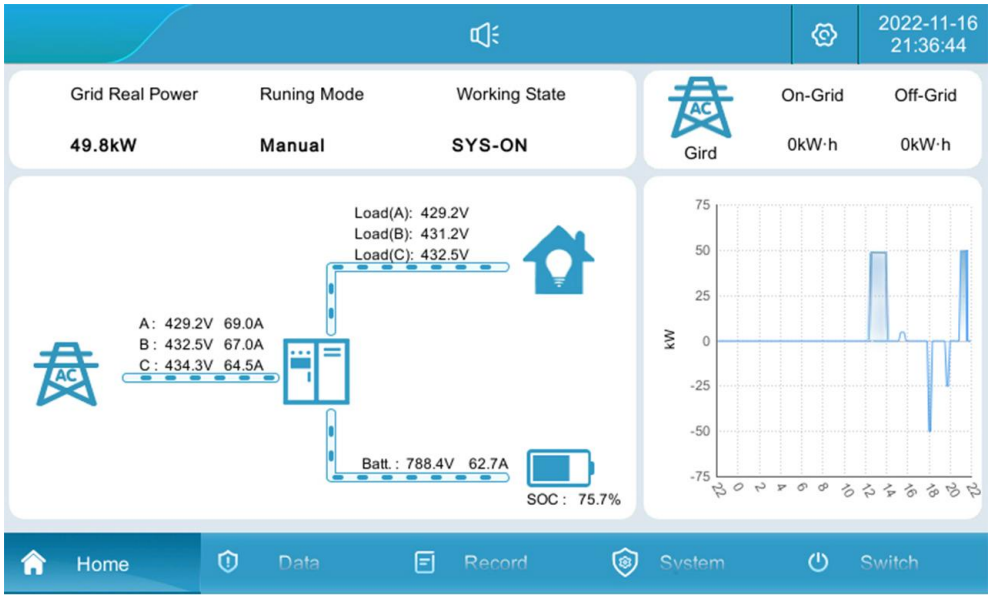
Table 1-1 Energy storage converter Parameter List

Model	***Monet-50TS***	***Monet-100TS***	***Monet-150TS***
DC-side parameters			
Operate voltage range	*580~950V*	*580~950V*	*580~950V*
Maximum DC current	*110A*	*110A*2*	*110A*3*
Adaptive battery	*Lithium/lead-acid/ Solar panel(MPPT)*	*Lithium/lead-acid/ Solar panel(MPPT)*	*Lithium/lead-acid/ Solar panel(MPPT)*
Charging mode	*According to BMS instructions/three-stage/MPPT*	*According to BMS instructions/three-stage/MPPT*	*According to BMS instructions/three-stage/MPPT*
Operating mode	*Constant current, constant power, MPPT, AC voltage source, DC voltage source*	*Constant current, constant power, MPPT, AC voltage source, DC voltage source*	*Constant current, constant power, MPPT, AC voltage source, DC voltage source*
AC-side parameters (On-grid)			
Rated Max.AC power	*50/55kW*	*100/110kW*	*150/165kW*
Rated AC current	*72A*	*144A*	*216A*
Rated AC voltage	*400V,3W+N+PE*	*400V,3W+N+PE*	*400V,3W+N+PE*
Rated AC frequency	*50/60Hz±5Hz*	*50/60Hz±5Hz*	*50/60Hz±5Hz*
THDi	*<3% (Rated power)*	*<3% (Rated power)*	*<3% (Rated power)*

Power Factor	*-1leading to+1 lagging*	*-1leading to+1 lagging*	*-1leading to+1 lagging*
AC-side parameters (Off-grid)			
Rated AC voltage	*400V*	*400V*	*400V*
Rated AC frequency	*50/60Hz*	*50/60Hz*	*50/60Hz*
THDv	*< 3% (Linear Load)*	*< 3% (Linear Load)*	*< 3% (Linear Load)*
Overload capacity	*110%, normal operation; 120%, 1 minute*	*110%, normal operation; 120%, 1 minute*	*110%, normal operation; 120%, 1 minute*
General parameters			
Degree of protection	*IP21(Indoor); IP55(Outdoor)*	*IP21(Indoor); IP55(Outdoor)*	*IP21(Indoor); IP55(Outdoor)*
Protective Class	*I*	*I*	*I*
Isolation method	*Transformer isolation*	*Transformer isolation*	*Transformer isolation*
Shutdown self-discharge	*<0.1% of rated power (without transformer)*	*<0.1% of rated power (without transformer)*	*<0.1% of rated power (without transformer)*
Display	*LCD*	*LCD*	*LCD*
Relative humidity	*0 ~ 95% (no condensation)*	*0 ~ 95% (no condensation)*	*0 ~ 95% (no condensation)*
Noise	*< 78dB*	*< 78dB*	*< 78dB*
Ambient temperature	*-25℃ to +60℃ (derating above 45℃)*	*-25℃ to +60℃ (derating above 45℃)*	*-25℃ to +60℃ (derating above 45℃)*
Cooling mode	*Intelligent air-cooled*	*Intelligent air-cooled*	*Intelligent air-cooled*
Altitude	*3000m (> 3000m reduction)*	*3000m (> 3000m reduction)*	*3000m (> 3000m reduction)*
Communication interface	*RS485/CAN/Ethernet*	*RS485/CAN/Ethernet*	*RS485/CAN/Ethernet*
*Dimensions (W * D * H)*	*800*800*2100mm(Indoor); 900*1000*2100mm(Outdoor)*		
Weight (approx.)	*550kg (Indoor); 630kg (Outdoor)*	*730kg (Indoor); 820kg (Outdoor)*	*910kg (Indoor); 990kg (Outdoor)*

1.6. Human-machine Interface Introduction

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



1.7. Appearance Diagram