Industry and Commercial Energy Storage System

Product Introduction

The distributed modular energy storage system is an energy storage system designed by InnoX Energy for industrial and commercial and micro-grid power consumption scenarios. The system consists of power cabinets and battery cabinets, with flexible configuration. The number of battery cabinets and power cabinets can be flexibly configured according to the requirements of application scenarios to achieve MW-level energy storage.

Product Features

Modular Design

- AC/DC, DC/DC unidirectional or bidirectional conversion modules can be selected.
- Isolated PCS modules can be chosen to adapt to impact loads.
- MPPT modules can be selected to enable photovoltaic integration.
- STS modules can be optionally equipped to achieve grid-connected and off-grid switching.

Safe and Reliable

- The protection level of the battery cabinet is IP55, and that of the power cabinet is IP54.
- The four-level fire protection system safeguards the safe and stable operation of the battery system.
- The battery cabinet is designed with a small capacity, and the cabinets are physically isolated, making faults controllable.
- It has passed the UL9540A safety certification.

Independent Branch Input

- A single cluster (single cabinet) of batteries is independently matched with one set of power conversion equipment.
- Multiple battery cabinets correspond to multiple sets of power conversion equipment within the power cabinet, without the hidden danger of circulating current.

Flexible Configuration

- With the outdoor cabinet design, it occupies a small area. The power cabinets and battery cabinets can be configured according to actual needs.
- The capacity can be flexibly increased or decreased. Multiple power cabinets and battery cabinets can be paralleled to achieve applications with larger capacity.
- A charging terminal can be optionally equipped to expand it into a photovoltaic energy storage supercharging system.

ICS500K1KR		
AC grid access	AC voltage	260Vac-437Vac, 45-65Hz/ 3-phases+N+PE
	AC max power	500kVA (8 * 62.5kVA)
Energy Storage Battery access	Battery group access channel	Max 4 channels
	Battery dis/ charging current ratio	0.5C charge and discharge, 0.75C discharge with 30 min
	Battery dis/ charging power to/ from AC Grid	Max 4 * (2 * 62.5kW)=500kW
Backup AC support (option)	STS Configuration	500kW
	STS power switch time	20mS
	STS efficiency	99.5%
	Function	ON/OFF grid control(automatic and manual), Seperate 3 phase and N line power switch
	Protection	Protection against countercurrent
	Backup Power	Max 500kW
	Bypass function / Off grid function	Yes (option)
PV access (option)	Access Channel	Max 4 channels
	Access Power	Max 4 * 30kWp =120kWp, MPPT support
Electric Isolation		No isolation between the Grid and Batt, Isolation between the PV and Battery
Metering	AC Grid main side	1 bi-directional AC energy meter
	Backup load side	1 bi-directional AC energy meter
	Station transformer entry side (option)	1 bi-directional AC energy meter
EMS	Local EMS	IMMU2 EMS controller, inner EMS algorithm and big data
	Remote EMS platform	Based on the Ethernet/TCP IP, Websocket+Json, MQTT+Json, Modbus, IEC104, IEC61850
	Remote HW interface	4G/Wifi/WLAN and LAN
Insulation detect		Each Battery channel and Each PV channel, +/PE and -/PE detector
HMI		7 " TFT Touch Screen, 5 status LED , E-STOP , Battery Fire Alarm Light/Beeper
		Default English, Multi Language support.
Dimension	W * H * D mm = 1000 * 2200 * 1150 mm, Weight: 800 kg (Full power modules)	
Protection level	IP54	
EMC/EMI	CE IEC61000-6-1/-6-3	
Safety Certification	EN62477-1, UL1741	
Grid connection	VDE-AR-N 4105, IEEE1547, UL1741SA/SB, GBT34120	
Parallel Ability	Max 4 sets in parallel work to get 2MW power and 3.44MWh capacity	