

GREENRICH

GREENRICH MINI-SUB

High Voltage All-In-One Hybrid Energy Storage System



Key strengths

- **All-in-one Integrated Hybrid System:** Combines PCS, inverter, Battery Management System (BMS), and Energy Management System (EMS).
- **Greenrich 1.5C Technology:** 1.5C technology, providing higher power output, faster charging, and enhanced safety, well managing inrush current for smooth operation.
- **Advanced Safety Features:** Includes combustible gas, smoke, and temperature detection, an active exhaust system, and a fire alarm for enhanced safety.
- **Enhanced Power Performance:** Allows for 200% PV installation and 160% overload capability to maximize performance.
- **Fire Prevention:** Utilizes Lithium Iron Phosphate (LiFePO4) batteries with an aerosol fire extinguishing solution for both the battery pack and system.
- **Expandable Capacity:** as specs
- **Monitoring:** Real-time monitoring via Local LCD screen, app, web browser, and Bluetooth with mobile phone screen access for easy control and management.



Battery lifespan
6000Cycle



Remote monitoring
Technical Support



Quick Service
Responsive to demand

Model	MS-S50-50	MS-S50-100	MS-S100-100	MS-S100-208
System Specification				
Nominal Output Power/UPS Power (kVA)	50	50	100	100
Energy Configuration (kWh)	50	100	100	208
Grid Type	Three Phase			
AC Output Frequency and Voltage	50/60Hz; 3/N/PE/220/380, 230/400Vac			
AC Output Rated Current (A)	76	76	76 *2	76 *2
Peak Power (Off Grid)	1.6 times of rated power, 2 seconds			
Battery Chemistry	Clindrical LiFePO4			
Battery Operating Voltage	150~800			
Max. Charging /Discharging Efficiency	95%			
Installation Style	Floor-Mounted			
IP Rating of Enclosure	IP55			
Dimension (W*D*H mm)	1500*1050*2050	1764 x 1050 x 2250	1900 x 1510 x 2100	1900 x 1510 x 2100
Weight Appr. (kg)	1450	1980	2150	2500
Inverter Technical Specification				
Max. PV Input Power (kW)	100	100	200	200
Max. PV Input Current (A)	4 *40A	4 *40A	8*40A	8*40A
Rated PV Input Voltage (Vdc)	1000			
Start Up DC Voltage (Vdc)	180			
MPPT Voltage Range (Vdc)	150~850			
Max. PV Short-circuit Current (A)	4 *60A	4 *60A	8*60A	8*60A
Number of MPPT/ Input Port	4/8	4/8	8 /16	8 / 16
Power Factor	>0.99 (0.8 leading to 0.8 lagging)			
THD	<2%			
Display	LCD			
Operating Temperature Range (°C)	-25~+60°C			
Relative Humidity	0~95%			
Inverter Communication	CAN, RS485, Ethernet, Optional: Wi-Fi, Cellular, LAN			
Grid Connection Standard	G98 or G99, IEC 62116/61727/60068/61683, VDE V0124, VDE 0126, CEIO-21, C10/11, EN 50549-1/50530, UTE C 15/ RD 1699/244, UNE 206006/07-1, NRS 0970201, TOR, EIFS 2018.2, MEA, PEA			
Max. Efficiency	97.80%			
MPPT Efficiency	99.90%			
Battery Technical Specification				
Battery Module Nominal Voltage (V)	51.2			
Max. Discharge Current (A)	125	150	150 *2	150 *2
Max. Charge Current (A)	100	100	100 *2	100 *2
Greenrich Discharge Rate	1.5C			
BMS Communication	CAN			
Operating Temperature Range	Charge: -35~55°C / Discharge: -35~60°C			
Life Cycle	>6000			
Battery Module Certification	UN38.3, IEC62619, IEC61000			
Number of parallel	6	6	3	3