

Utility ESS

POWER MASTER



Utility ESS – PowerMaster

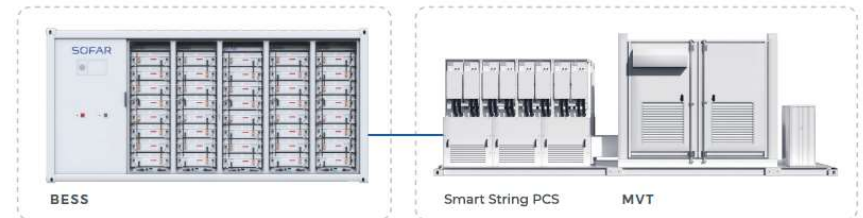
LESS LCOS

High Efficiency
and Flexibility

Ultimate Security

Intelligent Stability

Utility-Scale Energy Storage System Solution



Air-Liquid Mixing

Air-Cooled+Liquid-Cooled
Intelligent Heat Dissipation



Modular Design

Minimal operation and maintenance
One rack for one management
Automatic coordination control,
to ensure full power operation of PCS.



Suitable For Large Cells

Higher Energy Density
3.93MWh

3+2 Security System

Cell-Level Fire Extinguishing Gas Technique +
Cabin-Level Fire Extinguishing Gas Technique +
Water Firefighting Three-Level Linkage
Combustible Gas Emission + Explosion Venting
Design



Combined Design

A 40-foot Combined scheme can
be used to reduce the floor space
by more than 30%.

High conversion efficiency in the full power range

Smart coordination strategy to ensure high efficiency
performance of PCS full power-range



BESS

Product Advantages

- Uniform Flow Liquid-Cooled + Intelligent Air Cooled
- Better temperature uniformity, the temperature difference of cells in the battery pack is <2.5°C
- Anti-Condensation Design
- Combined Design: The 40-foot combination scheme reduces the floor area by more than 30%.
- Three-level linkage of cell-level gas fire protection + cabin-level gas fire protection + water fire protection
- Combustible Gas Emission + Explosion Venting Design
- Prevent secondary re-ignition in the battery compartment
- Ultimate Safety Design



BESS Specifications

Cell Type	LFP/280Ah	LFP/320Ah
Nominal Capacity (BOL)	3.44MWh	3.93MWh
Working Voltage Range	960 ~ 1401.6V	
Charge and Discharge Rate	≤0.5P	
Operating Ambient Temperature	-30°C ~ 55°C	
Working Environment Relative Humidity	0 ~ 100%(No Condensation)	
Working Altitude	≤4000m	
Cooling Method	Air Cooling + Liquid Cooling	
Fire Fighting Method	Perfluoro Gas Firefighting (Cell Level + Cabin Level) + Backup Water Firefighting + Combustible Gas Emission + Explosion Venting Design	
Communication Interface	Ethernet/CAN/RS485	
Communication Protocol	IEC61850、IEC104/CAN2.0/Modbus	
Degree of Protection	IP55	
Anti-Corrosion Grade	C4	
Dimensions (W*D*H)	6058*2438*2896mm	
Weight	~34T	~35T
Standards & Certifications	GB/T36276/IEC62619/UL1973/UL9540A/UN3536	

PACK Specifications

Model	S1G-LP430	S1G-LP490
Cell Type	LFP	
Series and Parallel Mode	1P48S	
Nominal Capacity/Energy	280Ah/43kWh	320Ah/49kWh
Rated Voltage	153.6V	
Working Voltage Range	120~ 175.2V	
Charge and Discharge Rate	≤0.5P	
Working Temperature	-30°C ~ 55°C	
Working Environment Relative Humidity	0 ~ 100%(No Condensation)	
Working Altitude	≤4000m	
Cooling Method	Liquid Cooling	
Fire Fighting Method	Cell-Level Firefighting (Perfluoro)	
Communication Interface	CAN	
Degree of Protection	IP67	
Dimensions (W*D*H)	765*1050*245mm	
Weight	≤310kg	≤322kg
Standards & Certifications	GB/T36276、IEC62619、UL1973、UN38.3	

Rack Specifications

Nominal Energy	344kWh	393kWh
Configuration	1P384S	
Rated Voltage	1228.8V	
Working Voltage Range	960 ~ 1401.6V	
Charge and Discharge Rate	≤0.5P	
Working Temperature	-30°C ~ 55°C	
Working Environment Relative Humidity	0 ~ 100%(No Condensation)	
Working Altitude	≤4000m	
Cooling Method	Liquid Cooling	
Fire Fighting Method	Perfluoro Gas Firefighting	
Communication Interface	CAN、Dry Contact	
Dimensions (W*D*H)	1050*1105*2400mm	
Weight	≤3.2T	≤3.3T
Standards & Certifications	GB/T36276、IEC62619	

* All specifications are subject to change without notice.