



**C109**  
**50kW / 109kWh**

The ESS-GRID Cabinet integrated system is engineered to meet the vast energy demands of industrial and commercial enterprises. From remote communities in Africa to industrial parks in Europe, the demand for stable and cost-effective energy solutions is growing. The ESS-GRID C109 outdoor battery cabinet is designed to address challenges such as grid instability, high electricity costs, and the integration of renewable energy.



High degree of integration



Excellent protection



Multifunctional



Space-saving



Efficient and flexible



Intelligent management

Item	General Parameter
Model	ESS-GRID C109
System Parameter	50kW / 109kWh
Cooling Method	Air-cooled
<b>Battery Parameters</b>	
Rated Battery Capacity	108.9kWh
Rated System Voltage	DC 806.4V
Battery Type	Lithium Iron Phosphate Battery (LFP)
Cell Capacity	135Ah
Recommended Max. Charge/Discharge Current	68A
Battery Series-parallel Connection Method	18S1P*14=252S1P
Charge temp./Discharge temp.Method	0~55°C / -20~55°C
<b>PV Parameters</b>	
Starting Voltage	200V
Max. PV Power	55kW
MPPT Quantity	1
MPPT Voltage Range	250-620V
MPPT Full Load Open Circuit Voltage Range (Recommended)*	345-620V
<b>AC Parameters</b>	
Rated AC Power	50kW
Nominal AC Current Rating	72A
Max. AC Current Rating	79A
Rated AC Voltage	400Vac/230Vac ,3W+N+PE /3W+PE
DC Side Voltage Range	600~1000V (3P3W) / 680~1000V (3P4W)
DC Side Full Load Voltage Range	625~927V (3P3W) / 680~927V (3P4W)
Rated Frequency	50Hz/60Hz(±5Hz)
Total Current Harmonic Distortion (THD)	<3% (Rated Power)
Power Factor Adjustable Range	1 Ahead ~ +1 Behind
<b>General Parameters</b>	
Protection Level	IP55
Fire Protection System	Hot-air aerosol
Isolation Method	Non-isolated (Optional Transformer)
Operating Temperature	-25°C~55°C (>45°C derating)
Altitude	3000m
Communication Interface	RS485 / CAN2.0 / Ethernet
Dimension (W*D*H,mm)	1100*1272*2200mm (±5)
Weight (With Batteries Approx.)	1540kg±3%
<b>PCS Certification</b>	
Electric Safety	IEC62619/IEC62477/EN62477
EMC (Electromagnetic Compatibility)	IEC61000/EN61000/CE
Grid-connected And Islanded	IEC62116
Energy Efficiency And The Environment	IEC61683/IEC60068

Note: The above models are typical configurations, and can also be used for micro-grid and other scenarios with optional photovoltaic charging modules, switching modules, industrial frequency transformers and other components, integrated optical storage, and integrated system cabinets.