BSLBATT®
Best Solution Lithium Battery

ESS-GRID FlexiO series

Resilient, Reliable and Quick Delivery Microgrid System



500kW / 1MWh

ESS-GRID FlexiO is an air-cooled industrial/commercial battery solution in the form of a split PCS and battery cabinet with 1+N scalability, combining solar photovoltaic, diesel power generation, grid and utility power. It is suitable for use in microgrids, in rural areas, in remote areas, or in large-scale manufacturing and farms, as well as for charging stations for electric vehicles.

- 3D visualization technology, one-click monitoring
- Parallel and off-grid, maximum power 1MW
- Support diesel power, utility power, photovoltaic
- Efficient energy management, multiple modes of operation
- Transportation of the whole cabinet, easy to install
- Intelligent system control for optimal operation and management
- Advanced patented LFP module technology
- Intelligent temperature control + multi-level fire protection architecture
- Protection class IP54, perfect for extreme weather

DC PV CABINET	
Model	ESS-GRID P500L
AC (GRID-CONNECTED)	
Photovoltaic (DC/DC) Power Rating	500kW
PV (Low Voltage Side) DC Voltage Range	312V~500V
PV Maximum DC Current	1600A
Number Of PV MPPT Circuits	10
Protection Grade	IP54
Protection Grade	I
Display	Touch LCD touch screen
Relative Humidity	10% ~ 90% RH (No Condensation)
Noise Level	Less than 80dB
Ambient Temperature	-25℃~60℃ (Derating above 45℃)
Cooling Method	Intelligent air cooling
EMS Communication	Ethernet / 485
Dimension (W*D*H,mm)	1300*1000*2300(±5)
Weight (With Battery Approx.)	900kg±3%

BATTERY CABINET PARAMETERS	
Model	ESS-BATT 241C
Rated Battery Capacity	241.1kWh
Rated System Voltage	768.0V
System Voltage Range	672.0V~852.0V
Cell Capacity	314Ah
Battery Type	LiFePO4 battery（LFP）
Battery Series-parallel Connection	1P*16S*15S
Maximum Charge/Discharge Current	157A
Protection Grade	IP55
Protection Grade	I
Cooling And Heating Air Conditioning	3kW
Noise Level	70dB
Cooling Method	Intelligent air-cooling
BMS Communication	CAN / 485
Dimension (W*D*H,mm)	1150*1282*2300(±5)
Weight (With Battery Approx.)	2360kg ±3%

AC ENERGY STORAGE CABINETS	
Model	ESS-GRID P500E
AC (GRID-CONNECTED)	
PCS Rated AC Power	500kW
PCS Maximum AC Power	550kW
PCS Rated AC Current	720A
PCS Maximum AC Current	790A
PCS Rated AC Voltage	400V，3W+PE/3W+N+PE
PCS Rated AC Frequency	50/60±5Hz
Total Harmonic Distortion Of Current THDI	<3% (rated power)
Power Factor	-1 overrun ~ +1 hysteresis
AC (OFF-GRID LOAD SIDE)	
Load Voltage Rating	400Vac，3W+PE/3W+N+PE
Load Voltage Frequency	50/60Hz
Overload Capacity	110% long term operation; 120% 1 minute
Voltage Total Harmonic Distoion Rate THDU	≤ 3% (linear load)
DC SIDE	
PCS DC Side Voltage Range	625~927V (three-phase three-wire) / 680~927V (three-phase four-wire)
PCS DC Side Maximum Current	800A
SYSTEM PARAMETERS	
Protection Grade	IP55
Protection Grade	I
Isolation Mode	Transformer isolation: 500kVA
Self-consumption	<100W (without transformer)
Display	Touch LCD touch screen
Relative Humidity	10% ~ 90% RH (No Condensation)
Noise Level	Less than 80dB
Ambient Temperature	-25℃~60℃ (Derating above 45℃)
Cooling Method	Intelligent air cooling
Altitude	3000m
BMS Communication	CAN / 485
EMS Communication	Ethernet / 485