

# BluE-S Series Residential ESS

Single Phase / All-in-one Hybrid System / 5 kW

## Save Your Energy Bill

- ▶ Optimized Time-of-use Profile
- ▶ 10000 Cycles Lifespan
- ▶ VPP Ready

## Whole Home Energy Solution

- ▶ Support On-grid and Off-grid Switching
- ▶ AC-coupling or DC-coupling System
- ▶ Backup Power Support

## Comprehensive Safety

- ▶ Alarm and Protection
- ▶ Online Monitoring
- ▶ Compliant with Global Grid Standards



Battery Model		BluE-PACK 5.1	
<b>Physical</b>		<b>Operation</b>	
Battery type	LFP (LiFePO4)	Max. Charge/Discharge Current	50 A / 80 A
Weight	54 kg	Rated DC power	4096 W
Dimensions (W x H x D)	540 x 490 x 240 mm	Max. Charge/Discharge Power	2825 W / 4096 W
IP Protection	IP65	Operating Temperature Range	-10 to 50°C charging ; -10 to 50°C discharging
Warranty	5 Year Product Warranty, 10 Year Performance Warranty	Humidity	0 ~ 95% (No condensation)
<b>Electrical</b>		<b>BMS</b>	
Energy Capacity	5.12 kWh	Modules Connection	Max. 4
Usable Capacity	4.6 kWh	Capacity	100 / 200 / 300 / 400 Ah
Depth of Discharge (DoD)	90%	Power Consumption	< 2 W
Nominal Voltage	51.2 V	Communication	CAN & RS-485
DC Circuit Breaker	125 A	Monitoring Parameters	System voltage, current, cell voltage, cell temperature, PCBA temperature measurement
Operating Voltage Range	44.8 ~ 56.5 V	<b>Certificate</b>	
Internal Resistance	< 20 mΩ	Safety(Cell)	Pack: IEC/EN 62619; UN 38.3 Cell: IEC/EN 62619; UN 38.3; UL 1973
Cycle Life	10000 cycle		

\*All specifications are subject to change without prior notice.

Hybrid Inverter Model	BluE-S 5000D
<b>PV String Input</b>	
Recommended Max. PV Array Input Power @STC	7.5 kWp
Max. DC Voltage	580 V
Nominal Voltage	400 V
MPPT Voltage Range	80 ~ 560 V
Start Voltage <sup>1)</sup>	150 V
Number of MPPT Tracker	2
Strings Per MPPT Tracker	1
Max. Input Current Per MPPT	15 A
Max. Short-circuit Current Per MPPT	18 A
<b>AC Output (Grid)</b>	
Nominal AC Output Power	5000 W
Max. AC Apparent Power	7360 VA ( from grid)
Max. AC Output Power	5000 W
Nominal AC Voltage	230 Vac
AC Grid Frequency Range	50 Hz / 60 Hz (±5 Hz)
Max. Output Current	22 A
Max. Input Current	32 A
Power Factor (cosΦ)	0.8 (Leading) ~ 0.8 (Lagging)
THDi	< 3%
<b>Battery Input</b>	
Battery Type	LFP (LiFePO4)
Nominal Battery Voltage	48 V
Charging Voltage Range	40 ~ 60 V
Max. Charging Current	100 A
Max. Discharging Current	100 A
Battery Capacity	100 ~ 400 Ah
Charging Strategy for Li-ion Battery	Depend on the BMS
<b>AC Output (Backup)</b>	
Max. Output Current	5000 VA
Peak Output Apparent Power	6900 VA 10sec
Max. Output Apparent Power	20 A
Nominal Output Voltage	230 V
Nominal Output Frequency	50 Hz / 60 Hz
Output THDv (@Linear Load)	< 3% ( Linear Load )
<b>Efficiency</b>	
Max. PV Efficiency	97.6%
Euro. PV Efficiency	97.0%
<b>Protection</b>	
DC Switch	Bipolar DC Switch (125 A / Pole)
Anti-islanding Protection	Yes
Output Over Current Protection	Yes
DC Reverse Polarity Protection	Yes
String Fault Detection	Yes
DC / AC Surge Protection	DC Type II; AC Type III
Insulation Detection	Yes
AC Short Circuit Protection	Yes
<b>General Specifications</b>	
Dimensions (W x H x D)	540 x 590 x 240 mm
Weight	32 kg
Operating Temperature Range	-25°C ~ +60°C
Noise (dB)	< 25
Cooling Type	Natural Convection
Max. Operating Altitude	2000 m
Operating Humidity	0 ~ 95% (No Condensation)
IP Class	IP65
Topology	Battery Isolation
Communication	RS-485 / CAN 2.0 / WIFI / 4G
Display	LCD / APP
Certification & Standard	IEC/EN 62109-1&2; IEC/EN 61000-6-1; IEC/EN 61000-6-2; EN 61000-6-3; IEC/EN 61000-6-4; IEC/EN 61000-3-11; EN 61000-3-12; IEC 60529; IEC 60068; IEC 61683; IEC 62116; IEC 61727; EN 50549-1; MEA; PEA

1) Minimum voltage for inverter to start power output.