

BluE-S Series Residential ESS

Three Phase / All-in-one Hybrid System / 8–12 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
- ▶ Optional Generator Connection

Comprehensive Safety

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



Battery Model		BluE-PACK 5.1	
Physical		Operation	
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) ¹⁾
Warranty	5 Year Product Warranty, 10 Year Performance Warranty	Humidity	0 ~ 95% (No condensation)
Electrical		BMS	
Energy Capacity	5.12 kWh	Modules Connection	Max. 8
Usable Capacity	4.6 kWh	Capacity	200 / 400 / 600 / 800 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	Certificate	
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		

Hybrid Inverter Model	E8KT	E10KT	E12KT
PV String Input			
Recommended Max. PV Array Input Power @STC	16 kWp	20 kWp	20 kWp
Max. DC Voltage	1100 V		
Nominal Voltage	720 V		
MPPT Voltage Range	140 V ~ 1000 V		
MPPT Voltage Range (Full Load)	380 V ~ 850 V	420 V ~ 850 V	480 V ~ 850 V
Start Voltage ¹⁾	200 V		
Number of MPPT	2		
Strings per MPPT	1		
Max. Input Current per MPPT	15 A		
Max. Short-circuit Current per MPPT	20 A		
AC Output (Grid)			
Nominal AC Output Power	8 kW	10 kW	12 kW
Max. AC Apparent Power	8.8 kVA	11 kVA ²⁾	13.2 kVA
Nominal AC Voltage	400 Vac		
AC Grid Frequency Range	50 / 60Hz ±5Hz		
Nominal Output Current	11.6 A	14.5 A	17.4 A
Max. Output Current	12.8 A	16 A ²⁾	19.2 A
Power Factor (cosΦ)	0.8 leading - 0.8 lagging		
THDi	< 3%		
Battery Input			
Battery Type	LFP (LiFePO4)		
Nominal Battery Voltage	51.2 V		
Charging Voltage Range	44 ~ 58 V		
Max. Charging Current	160 A		
Max. Discharging Current	160 A	200 A	200 A
Battery Capacity	200 / 400 / 600 / 800 Ah		
AC Output (Backup)			
Nominal AC Output Power	7.36 kW	9.2 kW	9.2 kW
Max. AC Output Power	8 kVA	10 kVA	10 kVA
Nominal Output Current	10.7 A	13.3 A	13.3 A
Max. Output Current	11.6 A	14.5 A	14.5 A
Nominal Output Voltage	400 V		
Nominal Output Frequency	50 / 60 Hz		
Output THDv (@Linear Load)	< 2% (Linear Load)		
Efficiency			
Max. PV Efficiency	97.60%		
Euro. PV Efficiency	97.00%		
Protection			
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		
General Specifications			
Dimensions (W x H x D)	540 x 980 x 240 mm		
Weight	49 kg		
Operating Temperature Range	-25°C ~+ 60°C		
Cooling Type	Natural Convection		
Max. Operating Altitude	2000 m		
Operating Humidity	0 ~ 95% (No Condensation)		
IP Class	IP66		
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; VDE-AR-N 4105; C10/11; VDE 0126-1-1; CEI 0-21; NC Rfg; G98; EIFS; NTS&UNE 217001		

1) Minimum voltage for inverter to start power output.

2) According to the C10/11 of Synergrid, the maximum AC output power is 10 kVA and the maximum AC output current is 14.5A.
The applicable hybrid inverter model is E10KTBE.