

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	
Physical	
Battery Type	LFP (LiFePO4)
Weight	54 kg
Dimensions (W x H x D)	540 x 490 x 240 mm
IP Protection	IP65
Warranty	5 Year Product Warranty, 10 Year Performance Warranty
Electrical	
Energy Capacity	5.12 kWh
Usable Capacity	4.6 kWh
Depth of Discharge (DoD)	90%
Nominal Voltage	51.2 V
DC Circuit Breaker	125 A
Operating Voltage Range	44.8 ~ 56.5 V
Internal Resistance	< 20 mΩ
Cycle Life	10000 cycle

BluE-PACK 5.1	
Operation	
Max. Charge / Discharge Current	50 A / 80 A
Rated DC power	4096 W
Max. Charge / Discharge Power	2825 W / 4096 W
Operating Temperature Range	-10 to 50°C (Charging); -10 to 50°C (Discharging) ¹⁾
Humidity	0 ~ 95% (No condensation)
BMS	
Modules Connection	Max. 8
Capacity	200 / 400 / 600 / 800 Ah
Power Consumption	< 2 W
Communication	CAN & RS-485
Monitoring Parameters	System voltage, current, cell voltage, cell temperature, PCBA temperature measurement
Certificate	
Safety (Cell)	Pack: IEC/EN 62619; UN 38.3 Cell: IEC/EN 62619; UN 38.3; UL 1973

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 14.5 A.

The applicable hybrid inverter model is E10KTBE.