

BluE-S Series (US) Residential ESS

All-in-one Hybrid System / 8–15 kW

Save Your Energy Bill

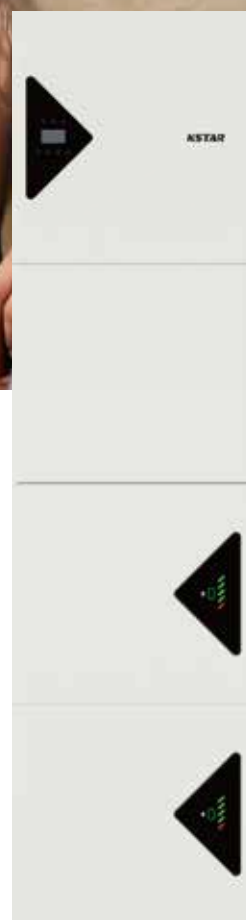
- ▶ Optimized Time-of-use Profile
- ▶ 10000 Cycles Lifespan
- ▶ VPP Ready

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
- ▶ AFCI & RSD Compliant



Battery Model		BP 48100 PF
Battery Specification		
Battery Capacity		5 kWh
Usable Capacity		4.5 kWh - Discharge Capacity from 100% to Min SoE
Battery Type		LFP (LiFePO4)
Rated Voltage		51.2 V
Operating Voltage Range		44.8 V ~ 56.5 V
Communication Interface		CAN & RS-485
Warranty		10 years performance warranty
Operations		
Maximum Continuous Charging Current		50 A
Maximum Continuous Discharging Current		80 A
Operating Temperature Range		-10°C ~ + 50°C
Storage Temperature Range		-10°C ~ + 55°C
Altitude		2000 m
Relative Humidity		0% ~ 90%
Cooling Strategy		Natural Cooling
BMS		
Capacity		200 / 400 / 600 / 800 Ah
Monitored Item		Current; Cell Voltage; Battery Voltage Accuracy; Ambient Temperature;
LED User Interface		LED Indication for Battery Status (On, Operational, Standby, Fault, Capacity of SOC)
Physical		
Weight		56.5 Kg
Dimensions (W x H x D)		540 x 490 x 240 mm
Certificate		
Safety	Cell	UL 9540 A
	Battery Pack	FCC Part 15 Class B UL 9540 A; UL 1973 (UL1973)
Certificate	FCC Part 15 Class B; UL 1973; Class 9; UN38.3, IP66 / NEMA 3R	

Hybrid Inverter Model	E8KD	E10KD	E12KD	E15KD
PV Input				
Recommended Max. PV Array Input Power @STC	16 kWp	18 kWp	22 kWp	25 kWp
Max. PV Input Voltage	500 Vdc			
MPPT Voltage Range	120 ~ 425 Vdc			
Start Voltage	120 V			
Nominal Voltage	380 Vdc			
MPPT Voltage Range With Full Load	200 ~ 425 V	240 ~ 425 V	200 ~ 425 V	240 ~ 425 V
Number of MPPT Tracker	2	2	3	3
Max. Input Current	30 A*2	30 A*2	30 A*3	30 A*3
Max. Short-circuit Current	40 A*2	40 A*2	40 A*3	40 A*3
AC Output (On Grid)				
Nominal (L-L) Output Voltage	240 / 208 V			
Output Voltage Range	160 V~ 300 Vac (L-L)			
Output Frequency	50 / 60Hz (±5Hz), (Adjustable)			
Nominal Output Current	33.4 A	41.7 A	50 A	62.5 A
Max. Output Power	8 kVA	10 kVA	12 kVA	15 kVA
Nominal Output Power	8 kW	10 kW	12 kW	15 kW
Output Connection	Split phase, 2/3 phase, single phase, transformerless			
Power Factor (cosΦ)	0.8 leading - 0.8 lagging (Adjustable)			
THDi	< 3%			
AC Output (Backup)				
Nominal (L-L) Output Voltage	240 / 208 V			
Nominal Output Frequency	50 / 60 Hz (±0.2%)			
Nominal Output Current	33.4 A (RMS)	41.7 A (RMS)	50 A (RMS)	50 A (RMS)
Nominal Output Power(Daytime)	8 kW	10 kW	12 kW	12 kW
Max. Output Power(Daytime)	8 kVA	10 kVA	12 kVA	12 kVA
Nominal Output Power(Nighttime)	7.36 kW	9.2 kW	11 kW	11 kW
Max. Output Power(Nighttime)	8 kVA	10 kVA	12 kVA	12 kVA
THDv	< 2% (Linear load)			
On / Off Grid Switching Time	< 20 ms			
Over Current Protection	50 A / pole	60 A / pole	75 A / pole	100 A / pole
Battery Input				
Battery Type	Lithium battery			
Battery Nominal Voltage	51.2 V			
Battery Voltage Range	44 ~ 58 V			
Depth of Discharge	90% DOD (10% ~ 90% Adjustable)			
Max. Discharging Current	200 A	200 A	240 A	240 A
Max. Charging Current	160 A (Adjustable)	160 A (Adjustable)	200 A (Adjustable)	200 A (Adjustable)
Max. Discharging Power	8 kW	10 kW	12 kW	12 kW
Max. Charging Power	8 kW	8 kW	10 kW	10 kW
Battery Switch	Single - pole DC switch (2*200 A / Pole)			
Capacity	200 / 400 / 600 / 800 Ah			
Efficiency				
CEC Efficiency	97.5% (@240 V) / 96%(@208 V)	97.5% (@240 V) / 96%(@208 V)	97% (@240 V) / 96%(@208 V)	97% (@240 V) / 95.5%(@208 V)
MPPT Efficiency	> 99.9%			
General Specifications				
Cooling Type	Intelligent air cooling			
DC Switch	Optional			
Communication Port	RS-485 / CAN 2.0 / WIFI			
Protection Class	Class II			
Operating Temperature Range	-25°C ~+ 60°C (Rated power@40°C)			
Storage Humidity Range	0 ~ 95% (No Condensation)			
Operating Altitude	≤ 2000 m			
Overvoltage Type	II (DC side); III (AC side)			
IP Class	IP65 / 3R			
Weight	73 kg			
Dimensions (W x H x D)	540 x 1050 x 240			
Protection & Certifications				
Certifications	Electronics Certified Safety by CSA Labs to NEC & UL Specs - NEC 690.4B & NEC 705.4/6			
	Grid Sell Back — UL 1741 - 2010/2018; IEEE 1547a - 2003/2014; FCC 15 Class B;			
	UL 1741SB; CA Rule21; HECO Rule 14 H			
Protection	PV DC Disconnect Switch — NEC 240.15 Ground Fault Detection — NEC 690.5 PV Rapid Shutdown Control — NEC 690.12 PV Arc Fault Detection — NEC 690.11		PV Input Lightning Protection PV String Input Reverse Polarity Protection AC Output Breakers Battery Breaker / Disconnect Surge Protection	