

# BlueSpark Series Residential ESS

Three Phase / All-in-one Hybrid System / 4-6 kW



## Safe & Reliable

Powered by CATL and EVE  
Human safe low-voltage solution  
Optional AFCI



## Smart Home Energy

Supports Self Consumption, Peak Shaving,  
Time-of-use, and Battery Priority operation modes  
SG Ready Heat Pump compatible



## High Performance

DC/AC ratio up to 2  
Long battery cycle life  
100% three-phase unbalanced output



## Easy Installation

Stackable design, no wiring required  
Compact and space-saving  
IP66 rating for protection



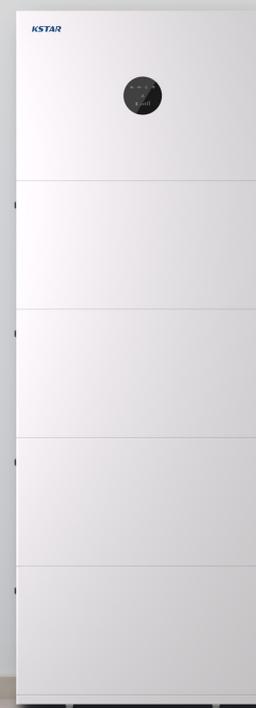
## Flexible Expansion

Supports both on-grid and off-grid parallel configurations  
Max. 8 battery packs per system



## Smart O&M

24 / 7 cloud monitoring  
Easy commissioning via Bluetooth  
Remote firmware upgrades



Battery Model		BP48100P1-G2 / BP48100PF1-G2 <sup>1)</sup>	
<b>General Parameters</b>		<b>Operation</b>	
Battery Type	LFP (LiFePO4)	Max. Continuous Charging Current	50 A (single battery pack)
Cell Brand	CATL / EVE (optional)	Max. Continuous Charging Power	2825 W
Energy Capacity	5.12 kWh <sup>2)</sup>	Max. Continuous Discharging Current	80 A (single battery pack)
Usable Capacity	4.6 kWh <sup>3)</sup>	Max. Continuous Discharging Power	4096 W
Max. Depth of Discharge	100%	Operating Temperature Range	-10 to 50°C (Charging); -10 to 50°C (Discharging) <sup>4)</sup>
Nominal Voltage	51.2 V	Cooling Type	Natural Cooling
Operating Voltage Range	44.8-57.6 V	Humidity	0~90%
Battery Pack Round-Trip Efficiency	>94%	<b>BMS</b>	
Weight	51 kg	Modules Connection	Max. 8
Dimensions (WxHxD)	725 x 418 x 165 mm	Capacity	100/200/300/400/500/600/700/800 Ah
IP Protection	IP65	Communication	CAN
Warranty	5 Year Product Warranty, 10 Year Performance Warranty	Monitoring Parameters	System voltage,current,battery voltage, Battery temperature,PCBA temperature measurement
<b>Certificate</b>			
Safety and Transportation	Pack:IEC/EN 62619;UN38.3; Cell:IEC/EN 62619;UN38.3;UL1973		

1) Refer to two models of battery pack: BP48100P1-G2 (without heating foil) and BP48100PF1-G2 (with heating foil).

2) Total Energy Capacity is tested under the following conditions: @25°C, 0.5C charging/0.5C discharging, at the beginning of life.

3) Usable Energy Capacity refers to the energy discharged from 100% to the minimum state of energy (SoE).

4) The operating temperature parameters only apply to battery pack models with heating function. For battery pack models without heating function, the operating temperature range will be: 0 to 50°C(Charging), -10 to 50°C (Discharging).

Hybrid Inverter Model	E4KT-D22	E5KT-D22	E6KT-D22
<b>PV Input</b>			
Recommended Max.PV Array Input Power @STC	10 kW	11 kW	12 kW
Max PV Voltage	1000 V		
Nominal Voltage	720 V		
MPPT Voltage Range	140 ~ 950 V		
MPPT Voltage Range with Full Load	200 ~ 800 V	230 ~ 800 V	250 ~ 800 V
Start Voltage <sup>1)</sup>	180 V		
Number of MPPT Tracker	2		
String per MPPT Tracker	1		
Max. Input Current per MPPT	20 A		
Max. Short-Circuit Current per MPPT	25 A		
<b>AC Output &amp; Input (Grid)</b>			
Max. AC Continuous Output Power	4000 W	5000 W	6000 W
Max. AC Apparent Output Power	4400 VA	5500 VA	6600 VA
Max. Continuous Input Power	10000 W	11000 W	12000 W
Nominal AC Voltage	400 Vac		
Normal Frequency	50 / 60 Hz $\pm$ 5 Hz		
Normal Output Current	5.8A (RMS)	7.3A (RMS)	8.7A (RMS)
Max. Output Current	13.1A (RMS)	13.1A (RMS)	13.1A (RMS)
Max. Input Current	21.0A (RMS)	22.6A (RMS)	22.6A (RMS)
Power Factor (cos $\phi$ )	0.8 leading - 0.8 lagging		
THDi	< 3%		
<b>AC Output (Backup)</b>			
Normal AC Output Power	4000 W	5000 W	6000 W
Max. AC Output Power	4000 VA	5000 VA	6000 VA
Max. Output Current	13.1A (RMS)	13.1A (RMS)	13.1A (RMS)
Normal Output Voltage	400 Vac		
Nominal Output Frequency	50 / 60Hz		
Output THDv (@Linear Load)	2% (Linear Load)		
<b>Battery Input</b>			
Battery Type	LFP (LiFePO4)		
Nominal Battery Voltage	51.2 V		
Charging Voltage Range	44~ 58 V		
Max. Charging/Discharging Current	100A / 100A	120A / 120A	120 / 150A
Max. Charging/Discharging Power	4000 W	5000 W	6000 W
Battery Capacity	100 ~ 800 Ah		
<b>Efficiency</b>			
Max. PV Efficiency	96.6 %		
Euro. Efficiency	94.5 %		
<b>Protection</b>			
DC Switch	Integrated		
Anti-islanding Protection	Integrated		
Residual Current Monitoring	Integrated		
PV Reverse Polarity Protection	Integrated		
AC Short Circuit Protection	Integrated		
AC Overvoltage Protection	Integrated		
DC/AC Surge Protection	DC Type II; AC Type III		
Remote Shutdown	Integrated		
AFCI	Optional		
<b>General Specifications</b>			
Dimensions W x H x D	725 x 490 x 230 mm		
Weight	40 kg		
Operating Temperature Range	-25°C to +60°C(>40°C derating)		
Cooling Type	Natural Convention		
Max. Operation Altitude	$\leq$ 4000m		
Operation Humidity	0~95%(No Condensation)		
IP Class	IP66		
Topology	Transformerless		
Communication	RS485 / CAN2.0 / WIFI		
Display	LED / WIFI+APP / Web		
Certification & Standard	IEC/EN 62109-1&2;EN61000-6-1;EN61000-6-2;EN61000-6-3;EN61000-6-4;EN61000-3-11;EN61000-3-12; VDE-AR-N4105; EN50549-1;G98/G99/G100;CEI 0-21;		

1) Minimum voltage for inverter to start power output.