

BlueSpark Series Residential ESS

NEW

Single Phase / All-in-one Hybrid System / 6-12 kW



Save Your Energy Bill

Powered by Tier 1 Battery Cells
Human-safe Low-voltage System
Optional AFCI Protection



Smart Home Energy

Supports Self Consumption, Peak Shaving,
Time-of-Use, and Battery Priority Modes
SG Ready Heat Pump Compatible



High Performance

DC / AC Ratio Up to 2
Long Battery Cycle Life



Easy Installation

Stackable Design, No Extra Wiring Required
Compact and Space-saving
IP66 Protection Rating



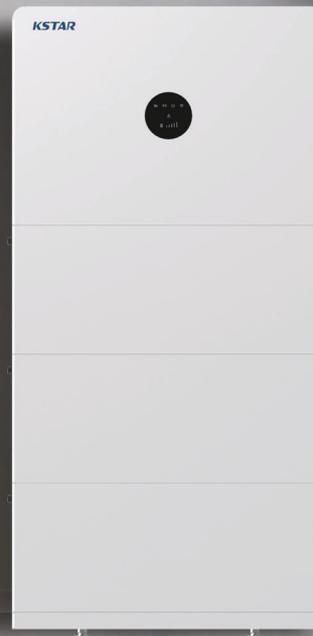
Flexible Expansion

Supports On-grid & Off-grid Parallel Operation



Smart O&M

24 / 7 Cloud Monitoring Via KSTAR SYNC
Easy Commissioning Via Bluetooth or Wi-Fi
Remote Firmware Upgrades



Battery Model	BP48314P(F)1A ¹⁾
General Parameters	
Battery Type	LFP (LiFePO4)
Cell Brand	EVE
Energy Capacity	16 kWh
Usable Capacity	15.68 kWh-discharge capacity from 100% to min SoE
Max.Depth of Discharge	98%
Norminal Voltage	51.2 V
Operating Voltage Range	44.8 ~ 57.6 V
Weight	130 kg
Dimensions (WxHxD)	725 x 300 x 600 mm
IP Protection	IP65
Warranty	10 Years
Compatible Inverter	E6/8/10/12KS-D42 & E15/17/20/22/25KT-D42 & E3.68/5/6 KS-D22 & E4/5/6/8/10/12KT-D22
Operation	
Max. Continuous Charging Current	157 A (Single Battery Pack)
Max. Continuous Charging Power	8034 W
Max. Continuous Discharging Current	157 A (Single Battery Pack)
Max. Continuous Discharging Power	8034 W
Operating Temperature Range	-10°C to 50°C (Charging with heating film); -10°C to 50°C (Discharging)
Cooling Type	Fan Cooling
Humidity	0 ~ 95% (No condensation)
BMS	
Communication	CAN
Monitoring Parameters	System Voltage, Current, Cell Voltage, Cell Temperature, PCBA Temperature
Certificate	
Safety and Transportation	Pack: UN38.3; MSDS; IEC 62040; IEC 62477; IEC 62619; IEC 63056; IEC 61000-6-2/4; Cell: IEC/EN 62619; UN38.3;

1) Refer to two models of battery pack: BP48314P1 (without heating foil) and BP48314PF1 (with heating foil).

Hybrid Inverter Model	E6KS-D42	E8KS-D42	E10KS-D42AU	E10KS-D42	E12KS-D42
PV Input					
Recommended Max.PV Array Input Power @STC*2	12000 W	16000 W	20000 W	20000 W	24000 W
Max PV Voltage	600 V				
Nominal Voltage	380 V				
MPPT Voltage Range	100 ~ 550 V				
MPPT Voltage Range With Full Load	100 ~ 480 V	120 ~ 480 V	150 ~ 480 V	150 ~ 480 V	180 ~ 480 V
Start Voltage	120 V				
Number of MPPT Tracker	4				
String per MPPT Tracker	1				
Max. Input Current per MPPT	20				
Max.Short-circuit Current per MPPT	30				
AC Output & Input (Grid)					
Max. AC Continuous Output Power	6000 W	8000 W	9999 W	10000 W	12000 W
Max. AC Apparent Output Power	6000 VA	8000 VA	9999 VA	10000 VA	12000 VA
Max. Continuous Input Power	12000 W	16000 W	20000 W	20000 W	24000 W
Nominal AC Voltage	1P+N+PE, 220 / 230 / 240 Vac				
Norminal Frequency	50 Hz / 60 Hz (±5 Hz)				
Max. Output Current	27.3 A @ 220 Vac	36.4 A @ 220 Vac	45.4 A @ 220 Vac	45.5 A @ 220 Vac	54.5 A @ 220 Vac
Max. Input Current	54.5 A	72.8 A*	63 A	90 A*	100 A*
Power Factor(cos φ)	0.8 leading ~ 0.8 lagging				
THDi	< 3%				
AC Output (Backup)					
Normal AC Output Power	6000 W	8000 W	9999 W	10000 W	12000 W
Max. AC Output Power	6000 VA	8000 VA	9999 VA	10000 VA	12000 VA
Max. Output Current	27.3 A @ 220 Vac	36.4 A @ 220 Vac	45.4 A @ 220 Vac	45.5 A @ 220 Vac	54.5 A @ 220 Vac
Norminal Output Voltage	1P+N+PE, 220 / 230 / 240 Vac				
Norminal Output Frequency	50 Hz / 60 Hz				
Output THDv(@Linear Load)	<3% (Linear Load)				
Battery Input					
Bttery Type	LFP(LiFePO4)				
Norminal Voltage	51.2 V				
Charging Vlotage Range	42 ~ 58 V				
Max. Charging / Discharging Current	200 A / 200 A				200 A / 240 A
Max. Charging / Discharging Power	10000 W / 10000 W				10000 W / 12000 W
Battery Capacity	314 ~ 942 Ah				
Efficiency					
Max.PV Efficiency	97.6%				
Euro. Efficiency	96.5%				
Protection					
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				
AC / DC Surge Protection	DC Type III(DC typ II Optional); AC Type III				
Remote Shutdown	Integrated				
AFCI	Optional				
General Specifications					
Dimensions (W×H×D)	725 x 510 x 245 mm				
Weight	43 kg				
Operating Temperature Range	-25°C to +60°C (> 45°C derating)				
Cooling Type	Fan Cooling				
Max. Operating Altitude	≤ 4000m				
Operating Humidity	0 ~ 95% (No Condensation)				
IP Class	IP66				
Topology	Transformerless				
Comunication	RS-485 / CAN / 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; IEC 61727; IEC 62116; IEC 60068; IEC 61683; AS 4777.2;				

* Max. AC input current is 63A for Australia.