

BlueSpark Series Residential ESS **NEW**

Single Phase / All-in-one Hybrid System / 3.68-6 kW

Save Your Energy Bill

- ▶ Powered by Tire 1 battery cell
- ▶ 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

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. 4 battery packs per system

Smart O&M

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



| Battery Model | | BP48100PF1A-G2 | |
|------------------------------------|---|-------------------------------------|--|
| General Parameters | | Operation | |
| Battery Type | LFP (LiFePO4) | Max. Continuous Charging Current | 80 A (single battery pack) |
| Cell Brand | EVE | Max. Continuous Charging Power | 4096 W |
| Energy Capacity | 5.12 kWh ¹⁾ | Max. Continuous Discharging Current | 80 A (single battery pack) |
| Usable Capacity | 4.6 kWh ²⁾ | Max. Continuous Discharging Power | 4096 W |
| Max.Depth of Discharge | 95% | Operating Temperature Range | -10 to 50°C (Charging); -10 to 50°C (Discharging) ³⁾ |
| Norminal Voltage | 51.2 V | Cooling Type | Natural Cooling |
| Operating Voltage Range | 44.8 ~ 57.6 V | Humidity | 0 ~ 95% (no condensation) |
| Battery Pack Round-Trip Efficiency | > 94% | BMS | |
| Weight | 56 kg | Modules Connection | Max. 4 |
| Dimensions (W x H x D) | 725 x 370 x 190 mm | Capacity | 100 / 200 / 300 / 400 Ah |
| IP Protection | IP65 | Communication | CAN |
| Warranty | 5 Year Product Warranty, 10 Year Performance | Monitoring Parameters | System voltage,current,battery voltage, Battery temperature,PCBA temperature measurement |
| Certificate | | | |
| Safety and Transportation | Pack: IEC/EN 62619; UN38.3; Cell:IEC/EN 62619; UN38.3; UL1973 | | |

1) Total Energy Capacity is tested under the following conditions: @25°C, 0.5C charging / 0.5C discharging, at the beginning of life.
 2) Usable Energy Capacity refers to the energy discharged from 100% to the minimum state of energy (SoE).
 3) 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).
 4) Minimum voltage for inverter to start power output.
 5) Nominal Output current and Maximum output current is 25 A for Ireland
 6) Max. AC continuous output power is 4999 W for Australia and 4600 W for Germany and South Africa.
 7) Max. AC apparent output power is 4999 VA for Australia and 4600 VA for Germany and South Africa
 8) Max. output current is 21.7 A for Australia and 20 A for Germany and South Africa.

| Hybrid Inverter Model | E3.68KS-D22 | E5KS-D22 | E6KS-D22 |
|-------------------------------------|--|---|----------------------|
| PV Input | | | |
| Recommended Max.PV Array | 7.2 kW | 10 kW | 10 kW |
| Input Power @STC | | | |
| Max PV Voltage | | 500 V | |
| Nominal Voltage | | 360 V | |
| MPPT Voltage Range | | 120 ~ 480 V | |
| MPPT Voltage Range with Full Load | 200 ~ 425 V | 250 ~ 425 V | 250 ~ 425 V |
| Start Voltage ⁴⁾ | | 120 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 | |
| AC Output & Input (Grid) | | | |
| Max. AC Continuous Output Power | 3680 W | 5000 W ⁶⁾ | 6000 W |
| Max. AC Apparent Output Power | 3680 VA | 5000 VA ⁷⁾ | 6000 VA |
| Max. Continuous Input Power | 7360 W | 9200 W | 9200 W |
| Nominal AC Voltage | | 230 Vac | |
| Norminal Frequency | | 50 Hz / 60 Hz (±5 Hz) | |
| Norminal Output Current | 16 A | 21.7 A | 26.1 A ⁵⁾ |
| Max. Output Current | 16.7 A | 22.7 A ⁸⁾ | 27.3 A ⁵⁾ |
| Max. Input Current | 32 A | 40 A | 40 A |
| Power Factor (cosΦ) | | -0.8 (Lagging) ~ 0.8 (Leading) | |
| THDi | | < 3% | |
| AC Output (Backup) | | | |
| Norminal AC Output Power | 3680 W | 5000 W | 6000 W |
| Max. AC Output Power | 3680 VA | 5000 VA | 6000 VA |
| Max. Output Current | 16 A | 21.7 A | 26.1 A |
| Norminal Output Voltage | | 230 Vac | |
| Nominal Output Frequency | | 50 Hz / 60 Hz | |
| Output THDv (@Linear Load) | | < 3% (Linear Load) | |
| Battery Input | | | |
| Battery Type | | LFP (LiFePO4) | |
| Nominal Battery Voltage | | 48 V | |
| Charging Voltage Range | | 42 ~ 58 V | |
| Max. Charging / Discharging Current | 80 A / 80 A | 120 A / 120 A | 125 A / 125 A |
| Rated Charging / Discharging Power | 3600 W / 3900 W | 5000 W / 5400 W | 6000 W / 6400 W |
| Battery Capacity | | 100 ~ 400 Ah | |
| Efficiency | | | |
| Max. PV Efficiency | | 97.2% | |
| Euro. Efficiency | 95.9% | 96.4% | 96.5% |
| Protection | | | |
| DC Switch | | Integrated | |
| Anti-islanding Protection | | Integrated | |
| Residual Current Monitoring | | 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 | |
| General Specification | | | |
| Dimensions (W x H x D) | | 725 × 390 × 245 mm | |
| Weight | 24.8 kg | 25.5 kg | 25.5 kg |
| Operating Temperature Range | | -25°C to + 60°C (> 45°C derating) | |
| Cooling Type | | Natural Convection | |
| Max. Operation Altitude | | ≤ 4000 m | |
| Operation Humidity | | 0 ~ 95% (no condensation) | |
| IP Class | | IP66 | |
| Topology | | High Frequency Isolation | |
| Communication | | RS485 / WIFI / (4G / Ethernet optional) | |
| Display | | LED+Bluetooth / APP / WEB | |
| Certification & Standard | IEC/EN62109-1&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 61727; IEC 62116; IEC 60068; IEC 61683; EN 50549-1; EN 50549-10; VDE-AR-N 4105; G98/G99; NC RfG:2018; C10/C11; CEI-021 | | |