

AC COUPLED ALL-IN-ONE ESS

IPOWER AES1-3K/3.6K/4.6K/5K-EG1

The LIVOLTEK AC coupled inverter is a cost-efficient solution to upgrade any existing PV inverter system to the hybrid one by adding a backup battery. This battery-based inverter allows you to store the surplus power to maximize self-consumption and protects you from rising electricity costs to achieve both grid-tied benefits and off-grid independence. Along with its ability to address the large retrofit market of existing PV systems, it also makes innovative residential storage solutions available for homes without solar-powered, ensuring energy flexibility and continuous power supply. In addition, you also get the added benefits of easy-to-install, reliability and use-friendly function.

Economically & Scalability

- Easy Installation: Unified built-in wiring box, factory pre-assembly and collective wiring design reduces 20% on-site installation time
- Affordable Upgrade: System scale-up requires no extra device due to integrated AC combiner box

Reliable Safety

- Remote monitoring, 7X24 Time of Use;
- Robust backup ability, switchover time <10ms;
- Max. 100A charging/discharging current

Versatile Application

- AC & DC SPD type II;
- IP65 & C5



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BESS SERIES

| Model | AES1-3KEG1 | | AES1-3K6EG1 | | AES1-4K6EG1 | | AES1-5KEG1 | |
|--------------------------------------|---|--|-------------|--|-------------|--|------------|--|
| AC Output Data@Grid | | | | | | | | |
| Rated AC Output Power | 3kW | | 3.68kW | | 4.6kW | | 5kW | |
| Max. Apparent Power | 3kVA | | 3.68kVA | | 4.6kVA | | 5kVA | |
| Max. Apparent Power from Grid | 3kVA | | 3.68kVA | | 4.6kVA | | 5kVA | |
| Rated Output Voltage | L/N/PE , 220 / 230 V | | | | | | | |
| AC Voltage Range | 176 ~ 276 V | | | | | | | |
| Rated Grid Frequency | 50 / 60 Hz | | | | | | | |
| Grid Frequency Range | 45-55 / 55-65 Hz | | | | | | | |
| Rated Output Current @230V | 13 A | | 16 A | | 20 A | | 21.7 A | |
| Max. AC Current Output | 13.6 A | | 16.7 A | | 20.9 A | | 22.7 A | |
| Max. AC Current From Grid | 13.6 A | | 16.7 A | | 20.9 A | | 22.7 A | |
| Output Power Factor | ~1 (Adjustable from 0.8 Leading to 0.8 Lagging) | | | | | | | |
| THDi @Rated Power | < 3% | | | | | | | |
| AC Output Data@EPS | | | | | | | | |
| Rated Output Power | 3kW | | 3.68kW | | 4.6kW | | 5kW | |
| Peak Output Power | 3kW | | 3.68kW | | 4.6kW | | 5kW | |
| Rated Output Voltage | L/N/PE, 230V | | | | | | | |
| Rated Output Frequency | 50 / 60 Hz | | | | | | | |
| Rated Output Current @230V | 13 A | | 16 A | | 20 A | | 21.7 A | |
| Max. AC Current Output | 13.6 A | | 16.7 A | | 20.9 A | | 22.7 A | |
| THDv @Linear Power | < 3% | | | | | | | |
| Automatic Switch Time | < 10ms | | | | | | | |
| Battery Input Data | | | | | | | | |
| Battery Type | LFP | | | | | | | |
| Battery Voltage Range | 40 ~ 60V | | | | | | | |
| Max.Charge/Discharge Power | 3kW | | 3.68kW | | 4.6kW | | 5kW | |
| Max.Charge/Discharge Current | 66 A | | 80 A | | 100 A | | 100 A | |
| Communication with BMS | CAN | | | | | | | |
| Efficiency | | | | | | | | |
| Max. Efficiency | 94% | | 94% | | 94% | | 94% | |
| Euro Efficiency | 93.50% | | 93.50% | | 93.50% | | 93.50% | |
| Protection | | | | | | | | |
| Anti-islanding Protection | | | | | Integrated | | | |
| Residual Current Monitoring Unit | | | | | Integrated | | | |
| AC Surge Protection | | | | | Type II | | | |
| AC Overcurrent Protection | | | | | Integrated | | | |
| AC Short Circuit Protection | | | | | Integrated | | | |
| AC Overvoltage Protection | | | | | Integrated | | | |
| Ground Fault Monitoring | | | | | Integrated | | | |
| Battery Reverse Protection | | | | | Integrated | | | |
| Remote Shutdown | | | | | Integrated | | | |
| General Data | | | | | | | | |
| Dimension (W*H*D) | 560*900*190 mm (inverter: 560*305*190mm; battery: 560*586*190mm) | | | | | | | |
| Weight | 75 kg (inverter: 17kg; battery: 56kg) | | | | | | | |
| Cooling Method | Natural Convection | | | | | | | |
| Mounting Method | wall or floor mounting | | | | | | | |
| Operating Temperature Range | -10°C to 60°C | | | | | | | |
| Storage environments | -20°C to 65°C | | | | | | | |
| Operating Humidity | 0% ~ 95% | | | | | | | |
| Typical Noise Emission | < 35 dB | | | | | | | |
| Display | LED/APP/Web | | | | | | | |
| Communication interface | RS485/CAN | | | | | | | |
| Max. Parallel Connection of Inverter | 1 pcs | | | | | | | |