LIVOLTEK

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

202608V1 Edition
Design and specifications are subject to change without notice

AC Coupled All-in-One ESS

ALL-IN-ONE

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

Model	AES1-3KEG1 /RT1-3KS1E	AES1-3K6EG1 /RT1-3K6S1E	AES1-4K6EG1 /RT1-4KS1E	AES1-5KEG1 /RT1-5KS1E	AES1-3KEL1 /RT1-3KL1E
AC Output Data @ Grid					
Rated AC Output Power	3 kW	3.68 kW	4.6 kW	5 kW	3 kW
Max. Apparent Power	3 kVA	3.68 kVA	4.6 kVA	5 kVA	3 kVA
Max. Apparent Power from Grid	3 kVA	3.68 kVA	4.6 kVA	5 kVA	3 kVA
Rated Output Voltage	L/N/PE, 220/230V				L/N/PE, 110/120/127V
AC Voltage Range	176-276V				85-156V
Rated Grid Frequency	50/60 Hz				
Grid Frequency Range	45-55Hz/55-65Hz				
Rated Output Current	13 A	16 A	20 A	21.7 A	25 A
Max. AC Current Output	13.6 A	16.7 A	20.9 A	22.7 A	25 A
Max. AC Current From Grid	13.6 A	16.7 A	20.9 A	22.7 A	25 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	3 kW	3.68 kW	4.6 kW	5 kW	3 kW
Peak Output Power	3 kW	3.68 kW	4.6 kW	5 kW	3 kW
Rated Output Voltage	L/N/PE, 230V				L/N/PE, 110/120/130V
Rated Output Frequency	50/60 Hz				
Rated Output Current	13 A	16 A	20 A	21.7 A	25 A
Max. AC Current Output	13.6 A	16.7 A	20.9 A	22.7 A	25 A
THDv @ Linear Power	<3%				
Automatic Switch Time	<10 ms				
Battery Input Data					
Battery Type	LFP				
Battery Voltage Range	40-60V				
Max. Charge/Discharge Power	3 kW	3.68 kW	4.6 kW	5 kW	3 kW
Max. Charge/Discharge Current	65 A	80 A	100 A	100 A	65 A
Communication with BMS	CAN				
Efficiency					
Max. Efficiency	94%	94%	94%	94%	94%
Euro Efficiency	93.50%	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					
Dimensions (W × H × D)	560 × 900 × 190 mm (inverter: 560 × 305 × 190 mm; battery: 560 × 586 × 190 mm)				
Weight	71 kg (inverter: 15 kg; battery: 56 kg)				74.5 kg (inverter: 18.5 kg; battery: 56 kg)
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				