

AC Coupled All-in-one ESS Inverter

iPower AES1-3K/3.6K/4.6K/5K-EG1^[1]

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.

Features

- VPP ready
- Remote Monitoring
- Multiple work modes for different scenarios
- Retrofit existing PV systems into ESS
- Plug and play
- Flexible Storage Capacity up to 10kWh
- IP65&C5
- SPD type II
- UPS mode



Technical Specification

Model	AES1-3KEG1	AES1-3K6EG1	AES1-4K6EG1	AES1-5KEG1
AC Output Data@Grid				
Rated AC Output Power (W/VA)	3kW	3.68kW	4.6kW	5kW
Max. Apparent Power (VA)	3kVA	3.68kVA	4.6kVA	5kVA
Max. Apparent Power from Grid (VA)	3kVA	3.68kVA	4.6kVA	5kVA
Rated Output Voltage (V)	L/N/PE , 220 / 230 / 240			
AC Voltage Range (V)	176 - 276			
Rated Grid Frequency (Hz)	50 / 60			
Grid Frequency Range (Hz)	45-55 / 55-65			
Rated Output Current (A) @230V	13	16	20	21.7
Max. AC Current Output (A)	13.6	16.7	20.9	22.7
Max. AC Current From Grid (A)	13.6	16.7	20.9	22.7
Output Power Factor	~1 (Adjustable from 0.8 Leading to 0.8 Lagging)			
THDi @Rated Power(%)	< 3%			
AC Output Data@EPS				
Rated Output Power (W/VA)	3kW	3.68kW	4.6kW	5kW
Peak Output Power (W/VA)	3kW	3.68kW	4.6kW	5kW
Rated Output Voltage (V)	L/N/PE, 230			
Rated Output Frequency (Hz)	50 / 60			
Rated Output Current (A) @230V	13	16	20	21.7
Max. AC Current Output (A)	13.6	16.7	20.9	22.7
THDv @Linear Power(%)	< 3%			
Automatic Switch Time (ms)	< 10ms			
Battery Input Data				
Battery Type	LFP			
Battery Voltage Range (V)	40-60			
Max.Charge/Discharge Power (W)	3kW	3.68kW	4.6kW	5kW
Max.Charge/Discharge Current (A)	60	75	100	100
Communication with BMS	CAN			
Efficiency				
Max. Efficiency(%)	94%	94%	94%	94%
Euro Efficiency(%)	93.5%	93.5%	93.5%	93.5%
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			
Inverter General Data				
Inverter Dimension (W × H × D mm)	564*305*190			
Inverter Weight (kg)	15			
Cooling Method	Natural Convection			
Mounting Method	wall or floor mounting			
Operating Temperature Range (°C)	-10 to 60			
Storage environments(°C)	-20 to 65			
Operating Humidity(%)	0 ~ 95%			
Protection Grade (battery)	IP65 & C5			
Efficiency (battery)	80% after 10 years			
Communication interface	RS485 CAN			
Max.Parallel Connection of Inverter(pcs)	1			
Standard Warranty	10 years			
Cycle Life (battery)	6,000 cycles			