



Off-Grid Hybrid Inverter

GF1-3K24S1/3K48S1/5K48S1/6K48S1

The LIVOLTEK off-grid hybrid inverter is an important part of the off-grid solar power system. Built-in MPPT solar charge controller, integrated functions of a solar charger and battery charger, this smart solar inverter can be connected to the public grid and manage a PV system with a battery bank to offer continuous power. It can also run directly, without batteries, sharing energy from utility and solar to loads alternatively. Free app to monitor your solar system both locally (with the integrated bluetooth) and remotely (via an optional Wi-Fi module) at any time.



Features

- Maximum efficiency up to 98%
- Parallel operation with up to 3 units
- Safe, compact, reliable, and cost-effective
- Scalable battery up to 5 sets(25KWh)
- Max. Input Voltage: 500V, MPPT range 60~450V
- Automatic switching 2 mode: Backup/Economic Mode



Parallel Support
up to 3 Units



Wi-Fi/Bluetooth



Lead-acid/
Lithium Battery



Generator
Compatibility

Compatible Products



Residential Lithium Battery



Optical LCD Screen



Monitoring System

Specifications

Model	GF1-3K24S1	GF1-3K48S1	GF1-5K48S1	GF1-6K48S1
Capacity				
Rated Power	3000VA /3000W	3000VA /3000W	5000VA /5000W	6000VA /6000W
Peak Power	6000VA	6000VA	10000VA	10000VA
PV Input Data				
Max. PV Input Power	3600Wp	3600Wp	6000Wp	6000Wp
Max. PV Input Voltage	500V			
MPPT Voltage Range	60V~450V	90V~450V		
Max. PV Current	14A	14A	25A	25A
Max.Short Circuit Current	17A	17A	31.25A	31.25A
No. of MPPTs/Strings per MPPT	1/1	1/1	1/2	1/2
AC Input Data				
Input Voltage Waveform	Sinusoidal			
Rated Input Voltage	230V			
Selectable Voltage Range	170~280V (Computers) 90~280V (Appliances)			
Rated Input Frequency	50Hz/60Hz			
Frequency Range	45-55Hz /55-65 Hz			
Max. AC to DC Efficiency	>93%	>95%	>95%	>95%
Max. Input Current	13.0 A	13.0 A	21.7 A	27 A
AC Output Data				
Output Waveform	Pure Sine Wave			
Rated Power	3000VA /3000W	3000VA /3000W	5000VA /5000W	6000VA /6000W
Peak Power	6000VA	6000VA	10000VA	12000VA
Rated Voltage	220/230/240V±5%	220/230/240V±5%	220/230/240V±5%	220/230/240V±5%
Typical Transfer Time	10ms			
Surge Power	10sec (110% ~ 150%), 2sec (150% ~ 200%)			
Max. Efficiency (PV to AC)	98%			
Max. Efficiency	94%	95%	95%	96%
Rated Grid Frequency	50Hz/60Hz			
Grid Frequency Range	45-55Hz /55-65 Hz			
Power Factor	1			
THDv, Rated Power[%]	<3%			
Battery & Charger				
Battery Type	Lead-acid/Lithium			
Rated Battery Voltage	24V	48V		
Charging Algorithm	3-Step			
Communication with BMS	CAN			
Solar Charger Type	MPPT			
Max. Solar Charging Current	120A	60A	100A	100A
Max. AC Charging Current	120A	60A	100A	100A
Max. Charging Current	120A	60A	100A	100A
General Data				
Dimension (W*H*D)	317*507*123 mm	338*485.5*147.3 mm		
Weight	10kg	11kg	12kg	12kg
Protection Degree	IP21			
Cooling	Fan			
Operating Temperature Range	- 10 C ~ 55 C			
Standby Power Consumption	< 15W			
Display	LED+APP/ LCD (Optional)			
Communication	CAN/USB/Dry Contact/Bluetooth/NTC/ RS485/Wi-Fi/LCD (Optional)			
Standard Warranty	2 Years			