



## Off-grid Hybrid Inverter

GF1-3K48L1/GF1-3K48S1/GF1-5K48S1

The LIVOLTEK off-grid hybrid inverter is an important part of the off-grid solar power supply system. Built-in MPPT controller, combining functions of a solar charger and battery charger, this smart solar inverter can be connected to the public electricity grid and manages a photovoltaic system and a battery bank to offer uninterrupted power support for you. It can also run directly, It can also running without batteries, energy share from utility and solar to loads alternatively. Once this inverter is installed, you can use the free app to monitor your solar system both locally (with the integrated Bluetooth) or remotely (via an optional Wi-Fi & LAN 2in 1 module) at any time.



### Features

- 110/220V optional
- Zero transfer time
- Optional WiFi/LAN remote monitoring
- Backup solutions for frequent power cuts



Built-in MPPT  
Solar Charger Controller



Lead-acid or Lithium  
Battery Compatible



Functional With or  
Without a Battery



Automatically Switch  
PV/AC/Bat Priority

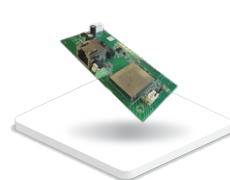
### Compatible Products



Residential Lithium Battery



Optical LCD Screen



Optional Wi-Fi/Ethernet Stick



Monitoring System

# Specifications

Model	GF1-3K48L1	GF1-3K48S1	GF1-5K48S1
<b>PV Input</b>			
Recommended Max. PV Power	3300Wp	3300Wp	5500Wp
Max. Open Circuit Voltage	500V		
MPP Range Voltage	90V~480V		
Max. PV Current	14A	14A	25A
Max. Short Circuit Current	17A	17A	31.25A
No. of MPPTs/Strings per MPPT	1/1	1/1	1/2
<b>AC Input</b>			
Input Voltage Waveform	Sinusoidal		
Rated Input Voltage	120V	230V	230V
Selectable Voltage Range	90~145V (UPS), 60~145V (Appliances), 108~132V (UL)	170~280V (Computers) 90~280V (Appliances)	170~280V (Computers) 90~280V (Appliances)
Rated Input Frequency	50Hz /60Hz		
Frequency Range	45Hz~55Hz/55Hz~65Hz		
Max. AC to DC Efficiency	>95%		
Max. Input Current	25A	14A	23.9A
<b>INV Output</b>			
Output Waveform	Pure Sine Wave		
Rated Power	3000VA/3000W	3000VA/3000W	5000VA/5000W
Peak Power	6000VA	6000VA	10000VA
Power Factor	1	1	1
Rated Output Voltage	110V/120V ±5%	220V/230V/240V ±5%	220V/230V/240V ±5%
Rated Frequency Range	50Hz /60Hz (Auto Sensing)		
Typical Transfer Time	0ms		
Surge Power	60sec (110% ~ 150%), 2sec (150% ~ 200%)		
Max. Efficiency (PV to AC )	94%		
Max. Efficiency (BAT to AC )	94%		
THDv (@linear load)	<3%		
<b>Battery &amp; Charger</b>			
Battery Type	Lead-acid/Lithium		
Rated Battery Voltage	48V		
Charging Algorithm	3-Step		
Communication with BMS	CAN		
Solar Charger Type	MPPT		
Max. Solar Charging Current	60A	60A	100A
Max. AC Charging Current	60A	60A	100A
Max. Charging Current	60A	60A	100A
<b>General Data</b>			
Dimension (W*H*D)	330*535*130 mm		
Weight	12kg		
Ingress Protection	IP21		
Cooling	Fan		
Operating Temperature Range	-10 C ~ 55 C		
Humidity	5% to 95% (Non-condensing)		
Standby power consumption	<2W		
Max. Operating Altitude	2000m		
Typical Noise Emission	<60dB		
Display	LED+APP/ LCD (Optional)		
Communication	CAN/USB/Dry Contact/Bluetooth/NTC/ RS485/Wi-Fi (Optional)/LCD (Optional)		

Remarks: Certifications may vary according to different regions.