LIVOLTEK

Off-grid Inverter

GF1-3.5K/4.5K/6.2KS3 GF1-1.5K/2K/3KL3

The GF1 series is a single-phase off-grid solar inverter designed for backup power, energy storage, and uninterrupted electricity. It features a high-efficiency MPPT charge controller, supports parallel operation for three-phase output, and offers flexible battery compatibility. The compact design includes a removable dust filter and enables real-time monitoring via dual communication interfaces and a mobile app.



Product Benefits

- Maximum string current of 18 A per string, compatible with all formats of PV modules.
- Supports up to 150% DC/AC ratio;
- Supports both off-grid and battery-free modes;
- Removable dust filter for harsh environment adaptability;
- Built-in dual battery activation function;
- Flexible compatibility with both lithium-ion and lead-acid batteries;
- Parameter configuration via LCD display;
- Overload / Overheat / Short-circuit protection;
- Compatible with mains voltage or generator power;
- Built-in MPPT solar charge controller.
- Dual outputs enable smart load prioritization, ensuring critical devices stay powered.

202610V2 Edition
Design and specifications are subject to change without notice

Off-grid Inverter

INVERTER

GF1-3.5K/4.5K/6.2KS3, GF1-1.5K/2K/3KL3

Model	GF1-3K5S3	GF1-4K5S3	GF1-6K2S3	GF1-1K5L3	GF1-2KL3	GF1-3KL3
PV Input						
Max. PV Input Power	5250 W	6750 W	9300 W	2250 W	3000 W	4500 W
Max. Open Circuit Voltage	500 Vdc					
Rated PV Input Voltage	350 Vdc					
MPPT Voltage Range	60-450Vdc					
Full-Load MPPT Operating Range (V)	300-450Vdc	375-450Vdc	300-450Vdc	125-450Vdc	170-450Vdc	250-450Vdc
Start-up Voltage	100 Vdc					
No. of MPPTs/Strings per MPPT	1/1	1/1	1/2	1/1	1/1	1/1
Max. PV Input Current	18 A	18 A	32 A	18 A	18 A	18 A
Max. Short Circuit Current	25 A	25 A	40 A	25 A	25 A	25 A
AC Output Data						
Nominal Output Active Power	3500 W	4500 W	6200 W	1500 W	2000 W	3000 W
Max. Output Apparent Power	3500 VA	4500 VA	6200 VA	1500 VA	2000 VA	3000 VA
Nominal Output Current (A)	15.2 A	19.6 A	27 A	12.5 A	16.7 A	25 A
Max. Output Current (A)	15.2 A	19.6 A	27 A	12.5 A	16.7 A	25 A
Nominal Grid Voltage	L/N/PE, 220/230/240Vac				L/N/PE, 110/120/127Vac	
Nominal Grid Frequency	50/60 Hz				50/60 Hz	
Output Voltage Waveform	Pure Sine Wave					
Peak Power (Off-Grid)	1.5 times of rated, 5s					
Transfer Time	10 ms typical, 20 ms max					
AC Input Data						
Nominal Input Active Power	3500 W	4500 W	6200 W	1500 W	2000 W	3000 W
Max. Input Current (A)	35 A	35 A	35 A	35 A	35 A	35 A
Nominal Grid Voltage	L/N/PE, 220/230/240Vac				L/N/PE, 110/120/127Vac	
Nominal Grid Frequency	50/60 Hz				50/60 Hz	
AC Input Voltage Range	170-280Vac				65-145Vac	
Battery Data						
Battery Type	Li-ion/Lead-acid					
Battery Voltage Range	40-60Vdc					
Max. Charge/Discharge Power (W)	3500 W	4500 W	6200 W	1500 W	2000 W	3000 W
Max. Charge Current	75 A	85 A	120 A	33.75 A	45 A	75 A
Max. Discharge Current	75 A	85 A	120 A	33.75 A	45 A	75 A
Lithium Battery Charging Strategy	Self-adaption to BMS					
Number of Battery Inputs	1					
Efficiency						
Max. Efficiency	93.00%					
Max. MPPT Efficiency	99.00%					
General Data						
Dimensions (W × H × D)	330 × 420 × 133 mm					
Weight	10.5 kg					
Number of Units in Parallel	1-6 pcs					
Mounting Method	Wall Mounting					
Protection Rating	IP20					
Operating Temperature Range	-15°C to +50°C (derating at 45°C)					
Protective Class	I					
Self-consumption Power	≤50 W					
Operating Attitude	<2000 m					
Operating Humidity	5-95%					