

OFF-GRID SPLIT-PHASE INVERTER

GF2-4K/5K/6K/8K48L1

The GF2-L SP series is a low-frequency all-in-one solar inverter designed for backup power, off-grid, providing uninterruptible power support and ESS applications. With the integration of isolation transformer, battery charger and MPPT solar charge controller, it improves the stability and high reliability of system operation. Moreover, it is capable of handling high surge loads to ensure continuous operation of critical loads during power outages.

Flexible & Expansion

- Multi-customized modes for diverse scenarios versatile for backup power, off-grid and ESS
- Support multiple power sources, such as PV, battery, diesel generator and utility
- Compatible with AGM / GEL / OPzV / Lead-Carbon / Flooded / Lithium
- Compatible with mainstream lithium battery brands and generators
- Built-in a smart port for Gen input or 2nd AC output
- 2 times peak power ability

Smart & Reliable

- Low frequency transformer, high surge power, 4ms ultra-fast switch to battery model
- ECO Mode to prolong backup time, extremely low self-consumption
- All-in-one design for easy installation
- Auto restart when the PV or AC is recovering
- LCD and Web & APP cloud monitoring



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INVERTER

Model	GF2-4K48L1	GF2-5K48L1	GF2-6K48L1	GF2-8K48L1
AC Input@Grid				
AC input voltage range(V)	Split phase: 180-276@240 (L1-L2); 90-138@120 (L1-N or L2-N)			
AC input frequency range(Hz)	45-65			
AC input Current (transfer switch) (A)	32		50	
AC Output@INV				
Nominal battery voltage (V)	48			
Battery Input voltage (V)	42~68			
Nominal AC output voltage (V)	Split phase 120/240 ± 2%			
Nominal AC output Frequency (Hz)	50/60 ± 0.1%			
Nominal AC Output Power(W/VA)	4000	5000	6000	8000
Peak power (W)	2 times of rated power, 5s			
Surge	300%			
Max. AC Outl Current (A)	32		50	
Max. Smart Port Current (A)	32		50	
Switchover Time	240V AC output: <4ms/120V AC output: <10ms			
THDv, Rated Power(%)	<2			
Max. efficiency	93%	94%		95%
Zero load power(W)	19	22	30	42
Protection support	a) output short circuit; b) overload; c) battery voltage too high; d) battery voltage too low; e) temperature too high; f) input voltage out of range; g) input voltage ripple too high; h) Fan block			
Charger				
Absorption charge voltage(V)	57.6			
Float charge voltage(V)	55.2			
Battery types	AGM / GEL / OPzV / Lead-Carbon / Flooded / Lithium			
Max AC charge current (A)	50	60	70	90
Temperature compensation (NTC)	Yes			
Solar Charge Controller				
Max. PV Input Power(W)	5200		4400+4400	
Max charge current (A)	60		100	
Max. PV Input Voltage(V)	250			
MPPT voltage range (V)	65~245			
Max. PV Input Current(A)	36		36+36	
Max. Short Circuit Current(A)	40		40+40	
No. of MPPTs	1		2	
Max. MPPT charger efficiency	98%			
MPPT Efficiency	>99.6%			
Protection	a) output short circuit; b) overload; c) battery voltage too high; d) battery voltage too low; e) temperature too high; f) input voltage out of range			
Inverter Data				
Dimension (W*H*D) (mm)	519*272*144	570*310*154	620*320*164	
Weight (kg)	20	29	31	34
Cooling	Forced Air Cooling			
Operating temperature range	-25°C to +60°C			
Altitude (m)	<2000			
Protection Degree	IP21			
Display	LCD+APP			
Operating Humidity	0 - 95 %			
Communication	RS485 /CAN			