














# 50KVA

## Hybrid Solar Inverter

**High-voltage | Three Phase**

### Features

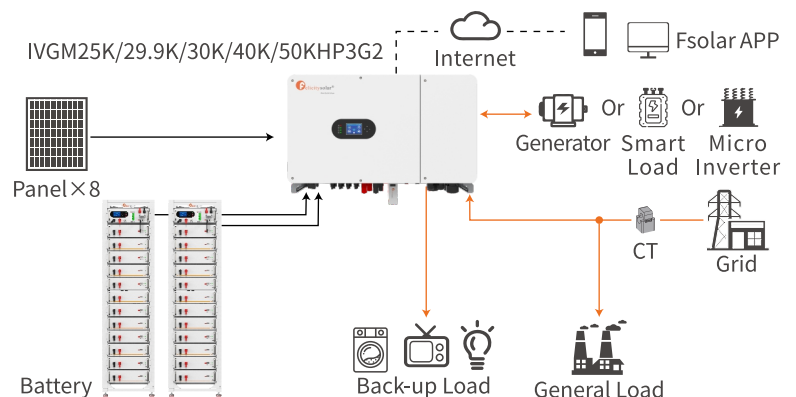
-  Supports WiFi monitoring and F solar smart cloud monitoring system.
-  Customizable battery charge / discharge scheduling.
-  Seamless power supply switching within 10ms.
-  Configurable parameters and working mode via LCD touch screen.
-  Programmable multiple operation modes: On grid, off grid and UPS.
-  8-channel PV, 4-channel MPPT, 2 times over configuration capacity.
-  Programmable supply priority for battery or grid.
-  Wide battery voltage input and high battery charge and discharge current up to 100A(50A+50A).
-  2 independent battery inputs, effectively reducing inter-cluster circulation.
-  Programmable generator port, support smart load and micro inverter access.
-  IP65 protection level.
-  12pcs in parallel maximum.
-  Auto restart while AC is recovering.



**IVGM25K~50KHP3G2**

### System Configuration

-  DC
-  AC
-  Communication



Model	IVGM50KHP3G2	IVGM40KHP3G2	IVGM30KHP3G2	IVGM29K9HP3G2	IVGM25KHP3G2
<b>Battery Input Data</b>					
Battery Type	LFP (LiFePO4)				
Battery Voltage Range	160~800Vdc				
Max. Charging Current	50+50(A)				
Max. Discharging Current	50+50(A)				
Number of Battery Input	2				
<b>PV String Input Data</b>					
Max. DC Access Power	100kW	80kW	60kW	59.8kW	50kW
Max. DC Input Power	80kW	64kW	48kW	47.84kW	40kW
Max. DC Input Voltage	1000Vdc				
Min. DC Input Voltage	150Vdc				
Start-up Voltage	180Vdc				
Rated DC Input Voltage	600Vdc				
MPPT Range	150~850Vdc				
Full Load DC Voltage Range	550~850Vdc	444~850Vdc	444~850Vdc	443~850Vdc	555~850Vdc
PV Input Current	36+36+36+36(A)		36+36+36(A)		36+36(A)
Max. PV Isc	55+55+55+55(A)		55+55+55(A)		55+55(A)
No. of MPP Trackers	4		3		2
No. of Strings Per MPP Tracker	2		2		2
<b>AC Output Data</b>					
Rated AC Output Power	50kW	40kW	30kW	29.9kW	25kW
Max. AC Output Power	55kW	44kW	33kW	29.9kW	27.5kW
AC Output Rated Current	72.5A	58A	43.5A	43.4A	36.3A
Max. AC Current	79.7A	63.8A	47.9A	43.4A	39.9A
Rated AC Voltage	110V/190V, 115V/200V, 120V/208V, 127V/220V, 133V/230V, 200V/346V, 220V/380V, 230V/400V, 240V/415V, 277V/480V				
AC Wiring Mode	3L+N+PE				
Rated AC Frequency	50 /60 Hz (45~55Hz/55~65Hz)				
THDI	<3% (At Rated Power)				
Power Factor	0.8( Leading) to 0.8( Lagging)				
<b>Safety and Standards</b>					
Surge Protection Level	TYPE II(DC), TYPE II(AC)				
Over Voltage Category	OVCII (DC), OVC III (AC)				
Grid Regulation	NTS & UNE217001 & UNE217002、CEI0-21、NRS 097-2-1、EN50549-1/-10+Poland Deviations、VDE 4105、G99、EN50549-1/-10、EN50549-1/-10+ Netherlands Deviations				
Safety Regulation	EN 62477-1、IEC 62109-1/-2				
EMC	IEC/EN 61000-6-2/4、EN/IEC 61000-3-11/12				
<b>Protection</b>					
PV Input Lightning Protection	Integrated				
PV String Input Reverse Polarity Protection	Integrated				
Battery Input Lightning Protection	Integrated				
AC Output Lightning Protection	Integrated				
Battery Input Reverse Polarity Protection	Integrated				
Insulation Resistor Detection	Integrated				
Residual Current Monitoring Unit	Integrated				
Output Over Current Protection	Integrated				
Output Short-Circuit Protection	Integrated				
Output Over Voltage Protection	Integrated				
Anti-islanding Protection	Integrated				
<b>General Data</b>					
Net Weight	87.1KG				
Gross Weight	107.1KG				
Product Dimension	940*582*340MM				
Package Dimension	1114*774*469MM				
Protection Degree	IP65				
Operating Temperature Range	-40 to 60°C(> 50°C Derating)				
Humidity	0~95 % (No Condensation)				
Cooling	Smart Cooling				
Communication with BMS	RS485,CAN				
Monitor Module	WiFi/GPRS				
Installation Style	Wall-mounted				
Warranty	10 Years				

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.



# 51.2V

## LiFePO4 Battery Pack

### FLH Series

#### Features

- Multiple protections: over voltage, over current, external short circuit, reverse polarity/ground. fault, over temp.
- Battery Protection: internal short circuit, over voltage, over current, over temp, under voltage.
- Higher safe performance and longer cycle life with LFP battery.
- Flexible Installation: rack-mounting.
- Compatible with leading inverter brands.
- Up to 10-year long warranty.
- Configurable parameters and working mode via LCD touch screen.



**FLH48100UG1**

Model		FLH48100UG1		
Battery Type		LiFePO4		
Nominal Energy		5.12KWh		
Nominal Voltage		51.2V		
Nominal Capacity		100Ah		
Number of Battery Modules		4(Min)	8	12
System Nominal Energy		20.48kWh	40.96kWh	61.44kWh
System Nominal Voltage		204.8V	409.6V	614.4V
System Operating Voltage		192-230.4V	384-460.8V	576-691.2V
Recommend Charge/Discharge Current		50A		
Max. Continuous Charge/Discharge Current[1]		100A		
Peak Charge/Discharge current(15S)		120A		
Depth of Discharge(DOD)		≥ 95%		
Display Type		LED+LCD(Touch)		
IP Rating of Enclosure		IP21		
Operating Temperature Range		Charge:0~+55°C		
		Discharge:-20°C~+55°C		
Storage Temperature Range		0°C~+35°C		
Humidity		5%-95%		
Altitude		≤2000M		
Cycle Life[2]		≥ 6000		
Installation		Rack-Mounting		
Protection		Built-in smart BMS, Breaker		
Communication Port		RS485 / CAN		
Warranty Period		10 Year		
Certification		UN38.3、CB、CE-EMC、IEC 62619、EN IEC 62040-1		
Control Module FLH48100UCG1	Product Dimension	482.6x565x150MM		
	Package Dimension	687x562x269MM		
	Product Weight Approximate	10.3KG		
	Package Weight Approximate	16.7KG		
Battery Module FLH48100UMG1	Product Dimension	482.6x565x131MM		
	Package Dimension	687x562x250MM		
	Product Weight Approximate	41.3KG		
	Package Weight Approximate	45KG		
	Battery Designation[3]	IFpP/54/150/120/[(1P16S)NS]M/-20+50/95		
Rack FLH48100R13G1	Product Dimension	560×590×2137.5MM (13th Floor)		
	Package Dimension	165×640×2142MM		
	Product Weight Approximate	62KG		
	Package Weight Approximate	69.5KG		
Rack FLH48100R9G1	Product Dimension	560×590×1565.5MM (9th Floor)		
	Package Dimension	168×642×1570MM		
	Product Weight Approximate	46KG		
	Package Weight Approximate	52KG(Approx)		

[1] Max. Continuous Charge/Discharge Current/Power is Affected by Temperature and SOC.

[2] Test Conditions: 0.2C Charging/Discharging @25°C, 80% DOD.

[3] "N" Means the Number of Battery Packs Connected Series and Should not Exceed 12. (N≤12)

\*Product specifications may vary during continuous improvements. Please contact us for latest details.

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

