

125 kW / 257 kWh Hybrid C&I ESS

IVGM125KHP3G1 + FLH48314UG1

The 125 kW / 257 kWh C&I ESS combines solar access, battery backup, smart energy management, and scalable design to improve power reliability and energy efficiency for businesses



0 ms Seamless Transfer

0 ms grid-to-off-grid transfer helps keep critical loads running during grid outages

Flexible Multi-Source Integration

Integrates solar, battery and grid power, with an optional port configurable for generator, Smart Load or micro-inverter connection

Smart Monitoring. Lower O&M

Remote monitoring and system control via the FSOLAR App simplify maintenance and help reduce operating costs

Scalable to 1.5 MW / 4.1 MWh

Scale system power up to 1.5 MW and storage capacity up to 4.1 MWh as project energy demand grows

125 kW
System Power

257 kWh
Storage Capacity

10 Channels
PV Input

Dual Battery
Inputs

Smart TOU
Energy Management

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Official Website



Social Media

IVGM125KHP3G1 Hybrid Inverter

Battery Input Data	
Battery Type	LFP (LiFePO4)
Battery Voltage Range	160-950 Vdc
Max. Charging / Discharging Current	120 A + 120 A / 120 A + 120 A
Number of Battery Inputs	2
PV String Input Data	
Max. DC Input Power	250 kW
Max. DC Input Power per Tracker	25 kW
Max. DC Input Voltage	1000 Vdc
Start-up Voltage	180 Vdc
Rated DC Input Voltage	600 Vdc
MPPT Range	150-950 Vdc
Full Load DC Voltage Range	555-950 Vdc
PV Input Current	10 x 45 A
Max. PV Isc	10 x 68 A
No. of MPP Trackers	10
Strings per MPPT Tracker	1/1
AC Input / Output Data	
Rated AC Input / Output Power	125 kW
Max. AC Input / Output Power	137 kVA
AC Rated / Max. Current	181.2 A / 198.6 A
Max. Output Overcurrent Protection	270 A
Max. AC Bypass (grid to load)	270 A
Rated AC Voltage	220/380,230/400 Vac (-20%~+15%)
AC Wiring / Frequency	3L+N+PE / 50/60 Hz
THDI	<3% (at rated power)
Power Factor	0.8 (leading) to 0.8 (lagging)
Efficiency & General Data	
Max. / Euro / MPPT Efficiency	98.8% / 98.2% / 99.90%
Protection Degree	IP66
Operating Temperature	-40 to 60°C (>45°C derating)
Net / Gross Weight	151.6 kg / 208.5 kg
Product Dimension	1250 x 796 x 364 mm
Warranty	10 Years

FLH48314UG1 High-Voltage Battery System

Overall System Parameters				
Model	FLH48314UG1			
Number of Battery Modules	5 (Min)	8	12	16 (Max)
System Nominal Voltage	256 V	409.6 V	614.4 V	819.2 V
System Operating Voltage	232-288 V	371.2-460.8 V	556.8-691.2 V	742.4-921 V
System Rated Energy	80.38 kWh	128.61 kWh	192.92 kWh	257.12 kWh
System Usable Energy	72.34 kWh	115.74 kWh	173.62 kWh	234.41 kWh
Humidity	5%-95%			
Enclosure Protection	IP20			
Installation	Module Stacking			
Display Type	LED + LCD (Touch)			
Warranty	10 Years			
Battery Technical Specifications				
Battery Chemistry / Cell Type	LiFePO4 / 314 Ah			
Battery Module Energy	16.07 kWh			
Altitude	≤3000 m			
Module Nominal Voltage	51.2 V			
Recommended Charge / Discharge	157 A			
Max. Continuous Charge / Discharge [1]	240 A			
Battery Communication	RS485 / CAN / Ethernet / WiFi (2.4G)			
Storage Temperature	0-35°C			
Operating Temperature [2]	0-55°C / -20-55°C			
Depth of Discharge	90%			
Cycle Life	>8,000 @ 0.5C, 25±2°C, EOL70%			
Certification	CE / IEC 62619 / IEC 62040 / UN38.3			

[1] Current is affected by temperature and SOC.
[2] Derated operation above 45°C.

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