

# 50 kW C&I

# Energy Storage Platform

**IVGM50KHP3G2 with FLH48100UG2**

**or FLH-E60**

Built around the IVGM50KHP3G2, the platform supports split-type and cabinet-based battery configurations for diverse C&I applications



## Flexible Deployment

Choose cabinet-based or split-type installation to suit different site layouts and project requirements

## Wide Grid Compatibility

Supports single-phase input, three-phase output and up to 150% three-phase load imbalance

## Smart Energy Management

Real-time monitoring via Fsolar enables easier system management and remote O&M

## Multi-Layer Safety Protection

LFP batteries, fire protection, smart monitoring, and durable component enclosures work together to keep your system safe

**50 kW**  
Rated Output

**61.44 kWh**  
Cabinet Energy

**25.6-61.44 kWh**  
Split-Type Configuration

**≥6,000**  
Cycle Life

**90%**  
DOD

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Official Website



Social Media

| Parameter                         | IVGM50KHP3G2<br>(Three-Phase Inverter)                                  | FLH-E60<br>(All-in-One Cabinet)            | FLH48100UG2<br>(Battery Module)                                       |                   |                   |                   |
|-----------------------------------|-------------------------------------------------------------------------|--------------------------------------------|-----------------------------------------------------------------------|-------------------|-------------------|-------------------|
| System Specification              |                                                                         |                                            |                                                                       |                   |                   |                   |
| Nominal Input/Output Power        | 50 kW                                                                   | 50 kW                                      | /                                                                     |                   |                   |                   |
| AC Input/Output                   | 3L+N+PE; 50/60 Hz (45~55Hz / 55~65Hz)<br>220/380,230/400 Vac(-20%~+15%) | 50/60 Hz; 3L+N+PE;<br>220/380, 230/400 Vac | /                                                                     |                   |                   |                   |
| AC Input/Output Rated Current     | 72.5 A                                                                  | 72.5 A                                     | /                                                                     |                   |                   |                   |
| Max. AC Current                   | 79.7 A                                                                  | 79.7 A                                     | /                                                                     |                   |                   |                   |
| Humidity                          | 0~95%(No condensation)                                                  | 5%~95%                                     | /                                                                     |                   |                   |                   |
| Altitude                          | 3000m (>2000m derating)                                                 | ≤3000 m                                    | /                                                                     |                   |                   |                   |
| Battery Communication             | RS485,CAN                                                               | RS485/CAN                                  | RS485/CAN                                                             |                   |                   |                   |
| Display Type                      | LED+LCDV                                                                | /                                          | /                                                                     |                   |                   |                   |
| Working Temperature Range         | -40 to 60°C(>50°C derating)                                             | Charge: 0~55°C<br>Discharge: -20~55°C      | Charge: 0~55°C<br>Discharge: -20~55°C                                 |                   |                   |                   |
| IP Rating of Enclosure            | IP65                                                                    | IP55                                       | IP21                                                                  |                   |                   |                   |
| Dimension (W*D*H)                 | Inverter: 940*552*340 mm                                                | 780*1056*2235 mm<br>(no contain inverter)  | Control Module: 482.65*515*130 mm<br>Battery Module:482.65*515*133 mm |                   |                   |                   |
| Weight Approximate (kg)           | Inverter (Net): 87.1 kg                                                 | 977 kg (no contain inverter)               | Control Module: 10.3kg<br>Battery Module:41.3kg                       |                   |                   |                   |
| Warranty [4]                      | 10 years                                                                | 10 years                                   | /                                                                     |                   |                   |                   |
| PV String Input Data              |                                                                         |                                            |                                                                       |                   |                   |                   |
| Max. DC Access Power              | 100 kW                                                                  | /                                          | /                                                                     |                   |                   |                   |
| Max. DC Input Power               | 80 kW                                                                   | /                                          | /                                                                     |                   |                   |                   |
| Max. DC Input Voltage             | 1000 Vdc                                                                | /                                          | /                                                                     |                   |                   |                   |
| Start-up Voltage                  | 180 Vdc                                                                 | /                                          | /                                                                     |                   |                   |                   |
| Rated DC Input Voltage            | 600 Vdc                                                                 | /                                          | /                                                                     |                   |                   |                   |
| MPPT Range                        | 150~850 Vdc                                                             | /                                          | /                                                                     |                   |                   |                   |
| Full Load DC Voltage Range Range  | 555~850 Vdc                                                             | /                                          | /                                                                     |                   |                   |                   |
| PV Input Current                  | 36+36+36+36 (A)                                                         | /                                          | /                                                                     |                   |                   |                   |
| Max. PV Isc                       | 55+55+55+55 (A)                                                         | /                                          | /                                                                     |                   |                   |                   |
| No. of MPP Trackers               | 4                                                                       | /                                          | /                                                                     |                   |                   |                   |
| No. of Strings per MPP Tracker    | 2                                                                       | /                                          | /                                                                     |                   |                   |                   |
| Battery Input Data                |                                                                         |                                            |                                                                       |                   |                   |                   |
| Battery Type                      | LFP (LiFePO4)                                                           | LiFePO4                                    | LiFePO4                                                               |                   |                   |                   |
| Battery Voltage Range             | 160~800 Vdc                                                             | /                                          | /                                                                     |                   |                   |                   |
| Max. Charging/Discharging Current | 50+50 (A)                                                               | 100 A                                      | 100 A                                                                 |                   |                   |                   |
| Battery Module Certification      | /                                                                       | CE, IEC62619, UN38.3                       | CE/IEC62619/UN38.3                                                    |                   |                   |                   |
| Number of Battery Modules         | /                                                                       | /                                          | 5 (Min)                                                               | 8                 | 12                | 16 (Max)          |
| System Nominal Energy             | /                                                                       | /                                          | 25.6 kWh                                                              | 40.96 kWh         | 61.44 kWh         | 81.92 kWh         |
| System Operating Voltage          | /                                                                       | /                                          | 232~288 V                                                             | 371.2~<br>460.8 V | 556.8~<br>691.2 V | 742.4~<br>991.6 V |

[1] Currently, the Battery Supports a Maximum of 16 BMUs. For the Entire Energy Storage System, Confirm the Inverter's Maximum Supported Voltage Range to Determine the Maximum Number of BMUs that Can Be Installed.

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

[3] Test Conditions: 0.5C Charging/Discharging @25±2°C, EOL 70%.

[4] Refer to Felicitysolar's Warranty Policy for Applicable Conditions.

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

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