

# GOODWE

## EO G2 Series

3-6kW | Single Phase | Off-grid Inverter  
1-2 MPPTs

The GoodWe EO G2 Series single-phase off-grid inverter is an ideal solution for homes in areas without grid access or those experiencing frequent power outages. It supports direct generator connection and parallel operation of up to 10 units for flexible off-grid power, while the user-friendly setup minimizes installation costs. As an efficient, flexible, and reliable off-grid solution, the EO G2 provides households with continuous energy security.



### High Protection

- IP66 Protection: Aviation Grade Connectors
- Built-in GFCI: Enhanced Electrical Safety
- -20°C to 55°C Operation: Harsh Environment Ready



### High Efficiency

- 200% PV Oversizing: Lower CAPEX Higher ROI
- 21A PV Input per String: Compatible with 99% PV modules
- 98.6% Max Efficiency: Higher Lifetime Revenue



### High Simplicity

- 4.3" Touchscreen: Easy On-site Control
- Built-in WiFi & Bluetooth: Remote Control and Update
- Up to 10 Units Scalable: System Expansion Anytime



### High Versatility

- Multi-Scenario Support: Grid, PV, ESS, Generator
- Whole-Home Backup: Your Home Always On
- <4ms Seamless Switching: No Power Interruption

| Technical Data                                | GW3K-EO-G20                            | GW3.6K-EO-G20                        | GW5K-EO-G20                           | GW6K-EO-G20                           |
|---|--|--------------------------------------|---------------------------------------|---------------------------------------|
| <b>Battery Side</b>                           |  |                                      |                                       |                                       |
| Battery Type                                  | Li-Ion / Lead-acid                     |                                      |                                       |                                       |
| Nominal Voltage (V)                           | 48                                     |                                      |                                       |                                       |
| Voltage Range (V)                             | 40 ~ 60                                |                                      |                                       |                                       |
| Start-up Voltage (V)                          | 44.2                                   |                                      |                                       |                                       |
| Number of Battery Inputs                      | 1                                      |                                      |                                       |                                       |
| Max. Continuous Charging Current (A)          | 70                                     | 90                                   | 120                                   | 130                                   |
| Max. Continuous Discharging Current (A)       | 70                                     | 90                                   | 120                                   | 130                                   |
| Max. Charging Power (kW)                      | 3.0                                    | 3.6                                  | 5.0                                   | 6.0                                   |
| Max. Discharging Power (kW)                   | 3.3                                    | 4.0                                  | 5.5                                   | 6.6                                   |
| <b>PV Side</b>                                |  |                                      |                                       |                                       |
| Max. Input Power (kW)                         | 6.0                                    | 7.2                                  | 10.0                                  | 12.0                                  |
| Max. Input Voltage (V) <sup>1</sup>           | 530                                    |                                      |                                       |                                       |
| MPPT Operating Voltage Range (V) <sup>2</sup> | 50 ~ 480                               |                                      |                                       |                                       |
| Start-up Voltage (V)                          | 60                                     |                                      |                                       |                                       |
| Nominal Input Voltage (V)                     | 360                                    |                                      |                                       |                                       |
| Max. MPPT Current (A)                         | 21                                     | 21                                   | 21 / 21                               | 21 / 21                               |
| Max. MPPT Short Circuit Current (A)           | 26                                     | 26                                   | 26 / 26                               | 26 / 26                               |
| Number of MPPTs                               | 1                                      | 1                                    | 2                                     | 2                                     |
| Number of Strings per MPPT                    | 1                                      |                                      |                                       |                                       |
| <b>AC Side (On-Grid)</b>                      |  |                                      |                                       |                                       |
| Nominal Power (kW)                            | 3.0                                    | 3.6                                  | 5.0                                   | 6.0                                   |
| Max. Power (kW)                               | 3.3                                    | 4.0                                  | 5.5                                   | 6.6                                   |
| Rated Apparent Power from Grid (kVA)          | 3.0                                    | 3.6                                  | 5.0                                   | 6.0                                   |
| Max. Apparent Power from Grid (kVA)           | 8.0                                    |                                      |                                       |                                       |
| Nominal Voltage (V)                           | 220 / 230, L / N / PE                  |                                      |                                       |                                       |
| Voltage Range (V)                             | 170 ~ 280                              |                                      |                                       |                                       |
| Nominal Frequency (Hz)                        | 50 / 60                                |                                      |                                       |                                       |
| Frequency Range (Hz)                          | 45 ~ 55 / 55 ~ 65                      |                                      |                                       |                                       |
| Rated Current from Grid (A)                   | 13.7@220V; 13.1@230V                   | 16.4@220V; 15.7@230V                 | 22.8@220V; 21.8@230V                  | 27.3@220V; 26.1@230V                  |
| Max. Current from Grid (A)                    | 35                                     |                                      |                                       |                                       |
| Power Factor                                  | 0.8 leading~0.8 lagging                |                                      |                                       |                                       |
| THDi  | <3%                                    |                                      |                                       |                                       |
| <b>AC Side (Back-up Port)</b>                 |  |                                      |                                       |                                       |
| Rated Apparent Power (kVA)                    | 3.0                                    | 3.6                                  | 5.0                                   | 6.0                                   |
| Max. Apparent Power (kVA)                     | Off-grid: 3.3 (7.2, 10s)<br>On-grid: 8 | Off-grid: 4 (7.2, 10s)<br>On-grid: 8 | Off-grid: 5.5 (12, 10s)<br>On-grid: 8 | Off-grid: 6.6 (12, 10s)<br>On-grid: 8 |
| Nominal Voltage (V)                           | 220 / 230, L / N / PE                  |                                      |                                       |                                       |
| Nominal Frequency (Hz)                        | 50 / 60                                |                                      |                                       |                                       |
| Max. Current (A) <sup>3</sup>                 | Off-grid: 15; On-grid: 35              | Off-grid: 18; On-grid: 35            | Off-grid: 25; On-grid: 35             | Off-grid: 30; On-grid: 35             |
| THDv (@Linear Load)                           | <3%                                    |                                      |                                       |                                       |
| On/Off-grid Switching Time (ms)               | ≤4                                     |                                      |                                       |                                       |
| <b>AC Side (Smart Port)</b>                   |  |                                      |                                       |                                       |
| Max. Apparent Power (kVA)                     | 8                                      |                                      |                                       |                                       |
| Nominal Voltage (V)                           | 220 / 230                              |                                      |                                       |                                       |
| Nominal Frequency (Hz)                        | 50 / 60                                |                                      |                                       |                                       |
| Frequency Range (Hz)                          | 45 ~ 55 / 55 ~ 65                      |                                      |                                       |                                       |
| Max. Current (A)                              | 35                                     |                                      |                                       |                                       |
| <b>Efficiency</b>                             |  |                                      |                                       |                                       |
| Max. Efficiency                               | 98.6%                                  |                                      |                                       |                                       |
| European Efficiency                           | 96.8%                                  |                                      |                                       |                                       |
| MPPT Efficiency                               | 99.9%                                  |                                      |                                       |                                       |
| <b>Protection</b>                             |  |                                      |                                       |                                       |
| PV String Current Monitoring                  | Integrated                             |                                      |                                       |                                       |
| PV Insulation Resistance Detection            | Integrated                             |                                      |                                       |                                       |
| Residual Current Monitoring                   | Integrated                             |                                      |                                       |                                       |
| PV Reverse Polarity Protection                | Integrated                             |                                      |                                       |                                       |
| Anti-islanding Protection                     | Integrated                             |                                      |                                       |                                       |
| AC Overcurrent Protection                     | Integrated                             |                                      |                                       |                                       |
| AC Short Circuit Protection                   | Integrated                             |                                      |                                       |                                       |
| AC Overvoltage Protection                     | Integrated                             |                                      |                                       |                                       |
| DC Surge Protection                           | Type III                               |                                      |                                       |                                       |
| AC Surge Protection                           | Type II                                |                                      |                                       |                                       |
| <b>General Data</b>                           |  |                                      |                                       |                                       |
| Operating Temperature Range (°C)              | -35 ~ +60                              |                                      |                                       |                                       |
| Relative Humidity                             | 0 ~ 95%                                |                                      |                                       |                                       |
| Max. Operating Altitude (m)                   | 3000                                   |                                      |                                       |                                       |
| Cooling Method                                | Natural Cooling                        | Natural Cooling                      | Smart Fan Cooling                     | Smart Fan Cooling                     |
| User Interface                                | LCD, WLAN + APP                        |                                      |                                       |                                       |
| Communication with BMS                        | CAN                                    |                                      |                                       |                                       |
| Communication                                 | RS485, WiFi + bluetooth                |                                      |                                       |                                       |
| Communication Protocols                       | Modbus-RTU                             |                                      |                                       |                                       |
| Weight (kg)                                   | <13                                    |                                      |                                       |                                       |
| Dimension (W × H × D mm)                      | 337 × 456 × 201                        |                                      |                                       |                                       |
| Ingress Protection Rating                     | IP66                                   |                                      |                                       |                                       |
| Mounting Method                               | Wall Mounted                           |                                      |                                       |                                       |

\*1: When the input voltage is greater than 500V, the inverter will enter standby mode, and when the voltage returns to below 490V the inverter will return to normal operation.

\*2: Please refer to the user manual for the MPPT Voltage Range at Nominal Power.

\*3: Please visit GoodWe website for the latest certificates.