

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
- -35°C to 60°C Operation: Harsh Environment Ready



High Efficiency

- 200% PV Oversizing: Lower CAPEX Higher ROI
- 21A PV Input per String: Broad Compatibility with Mainstream 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
Battery Side					
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	
PV Side					
Max. Input Power (kW)	6.0	7.2	10.0	12.0	
Max. Input Voltage (V) ¹	530				
MPPT Operating Voltage Range (V) ²	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				
AC Side (On-Grid)					
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%				
AC Side (Back-up Port)					
Rated Apparent Power (kVA)	3.0	3.6	5.0	6.0	
Max. Apparent Power (kVA)	Off-grid: 3.3 (7.2, 10s) On-grid: 8	Off-grid: 4 (7.2, 10s) On-grid: 8	Off-grid: 5.5 (12, 10s) On-grid: 8	Off-grid: 6.6 (12, 10s) On-grid: 8	
Nominal Voltage (V)	220 / 230, L / N / PE				
Nominal Frequency (Hz)	50 / 60				
Max. Current (A) ³	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				
AC Side (Smart Port)					
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				
Efficiency					
Max. Efficiency	98.6%				
European Efficiency	96.8%				
MPPT Efficiency	99.9%				
Protection					
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				
General Data					
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.