GOODWE

ES G2 Series

3-6kW I Single Phase I 2 MPPTs Hybrid inverter (LV)

The GoodWe ES G2 inverter, ranging from 3 to 6kW, is a single-phase hybrid inverter designed to increase self-consumption of the generated solar energy, with the ability to control the flow of energy intelligently. The inverter can automatically realize UPS-level switching to the back-up mode in less than 10ms, with strong backup ability to withstand heavy loads like air conditioners. Its smart design also offers great flexibility for demanding scenarios as it supports parallel connection for dependable backup power supply. Featured with plug-and-play, compact design, and minimal weight, PV installations are quicker and easier to complete than ever before. Importantly, ES G2 is compatible with a wide range of low voltage batteries such as GoodWe Lynx Home U battery. For homeowners looking to achieve a high degree of energy autonomy, reliable power supply and affordable energy prices, the ES G2 is the right choice.

Smart Control & Monitoring

- Smart load control with dry contacts
- Smart home integration with multi-protocol communications

Friendly & Thoughtful Design

- Plug & Play
- Elegant and compact design

Superb Safety & Reliability

- Optional AFCI on DC side[1]
- Remote Shutdown

Flexible & Adaptable Applications

- Compatible with lithium-ion & lead-acid batteries
- Maximum 16A DC input current per string and high-power module compatibility
- Strong backup power supply

1: Optional functions or devices are purchased separately.

ES G2 Series

GOODWE

Technical Data	GW3000-ES-20	GW3600-ES-20	GW3600M-ES-20	GW5000-ES-20	GW5000M-ES-20	GW6000-ES-20	GW6000M-ES-20
Battery Input Data							
Battery Type[*1]	Li-Ion / Lead-acid	Li-Ion / Lead-acid	Li-Ion	Li-Ion / Lead-acid	Li-Ion	Li-Ion / Lead-acid	Li-Ion
Nominal Battery Voltage (V)	48						
Battery Voltage Range (V)	40 ~ 60						
Max. Continuous Charging Current (A)[*1]	60	75	60	120	60	120	60
Max. Continuous Discharging Current (A)[*1]	60	75	60	120	60	120	60
Max. Charge Power (W)[*1]	3000	3600	3000	5000	3000	6000	3000
Max. Discharge Power (W)	3200	3900	3200	5300	3200	6300	3200
PV String Input Data							
Max. Input Power (W)[*2]	4500	5400	5400	7500	7500	9000	9000
Max. Input Voltage (V)	600						
MPPT Operating Voltage Range (V)	60 ~ 550						
Start-up Voltage (V)	58						
Nominal Input Voltage (V)	360						
Max. Input Current per MPPT (A)	16						
Max. Short Circuit Current per MPPT (A)	23						
Number of MPP Trackers	1	2	2	2	2	2	2
Number of Strings per MPPT	1						
AC Output Data (On-grid)							
Nominal Apparent Power Output to Utility Grid (VA)	3000	3680	3680	5000[*3]	5000[*3]	6000[*3]	6000[*3]
Max. Apparent Power Output to Utility Grid (VA)	3000	3680	3680	5000[*3]	5000[*3]	6000[*3]	6000[*3]
Max. Apparent Power from Utility Grid (VA)	6000	7360	3680	10000	5000	10000	6000
Nominal Output Voltage (V)	220 / 230 / 240						
Nominal AC Grid Frequency (Hz)	50 / 60						
Max. AC Current Output to Utility Grid (A)	13.6	16.7	16.7	22.7	22.7	27.3	27.3
Max. AC Current From Utility Grid (A)	27.3	33.5	16.7	43.5	22.7	43.5	27.3
Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)						
Max. Total Harmonic Distortion	<3%						
AC Output Data (Back-up)							
Back-up Nominal Apparent Power (VA)	3000	3680	3680	5000	5000	6000	6000
Max. Output Apparent Power (VA)	3000 (6000@10sec)	3680 (7360@10sec)	3680	5000 (10000@10sec)	5000	6000 (10000@10sec)	6000
Max. Output Current (A)	13.6	16.7	16.7	22.7	22.7	27.3	27.3
Nominal Output Voltage (V)	220 / 230 / 240						
Nominal Output Freqency (Hz)	50 / 60						
Output THDv (@Linear Load)	<3%						
Efficiency							
Max. Efficiency	97.6%						
European Efficiency	96.7%						
Max. Battery to AC Efficiency	95.5%						
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 Switch	Integrated						
DC Surge Protection	Type II						
AC Surge Protection	Type III						
AFCI	Optional						
Remote Shutdown	Integrated						
General Data							
Operating Temperature Range (°C)	-25 ~ +60						
Relative Humidity	0 ~ 95%						
Max. Operating Altitude (m)	3000 (>2000 Derating)						
Cooling Method	Natural Convection						
Display	LED, WLAN + APP						
Communication with BMS	CAN						
Communication with Meter	RS485						
Communication with Portal	WiFi / WiFi + LAN / 4G						
Weight (kg)	19.6	20.8	20.0	21.5	20.0	21.5	20.0
Dimension (W × H × D mm)	505.9 × 434.9 × 154.8						
Topology	Non-isolated						
Self-consumption at Night (W)	<10						
Ingress Protection Rating	IP65						
Mounting Method	Wall Mounted						

*1: The actual charge and discharge current / power also depends on the battery.
*2: The max power is the actual power of PV. Besides, in Australia, for most of the PV module, the max. input power can achieve 2*Pn, Such as the max. input power of GW3000-ES-20 can achieve 6000W.
*3: 4600 for VDE-AR-N4105 & NRS 097-2-1.
*: Please visit GoodWe website for the latest certificates.
*: All pictures shown are for reference only. Actual appearance may vary.