GOODWE

Compact and efficient inverter for optimised solar energy back-up

- Optimised energy autonomy
- Smart and efficient operations
- Modern and compact design
- Highest safety standards

Meeting the needs of combined PV rooftop and energy storage systems, the ES G2 hybrid inverter provides optimised energy flexibility. By facilitating maximum back-up of generated solar energy, a high degree of autonomy can be achieved. Factor in its modern design and smart home integration abilities, then ES G2 is the ideal choice for residential applications. The ES G2 series is compatible with a range of batteries, including the GoodWe Lynx Home U.

- UPS level switching <10ms
- Smart home integration
- Parallel connection

ES G2 Series Hybrid Inverter I 3.6 - 6kW I 2 MPPTs I Single Phase I LV **EMEA**

ES G2 Series

GOODWE

Technical Data	GW3600-ES-20	GW3600M-ES-20	GW5000-ES-20	GW5000M-ES-20	GW6000-ES-20	GW6000M-ES-20
Battery Input Data						
Battery Type	Li-Ion					
Nominal Battery Voltage (V)	48					
Battery Voltage Range (V)	40 ~ 60					
Max. Continuous Charging Current (A)*1	75	60	120	60	120	60
Max. Continuous Discharging Current (A)*1	75	60	120	60	120	60
Max. Charge Power (W)*1*2	3600	3000	5000	3000	6000	3000
Max. Discharge Power (W)*2	3900	3200	5300	3200	6300	3200
PV String Input Data						
Max. Input Power (W)*3	5400	5400	7500	7500	9000	9000
Max. Input Voltage (V)*4	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	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)	3680	3680	5000*5	5000*5	6000*5	6000*5
Max. Apparent Power Output to Utility Grid (VA)	3680	3680	5000*5	5000*5	6000*5	6000*5
Max. Apparent Power from Utility Grid (VA)	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)	16.7	16.7	22.7	22.7	27.3	27.3
Max. AC Current From Utility Grid (A)	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)	3680	3680	5000	5000	6000	6000
Max. Output Apparent Power (VA)	3680 (7360@10sec)	3680	5000 (10000@10sec)	5000	6000 (10000@10sec)	6000
Max. Output Current (A)	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)	20.8	20	21.5	20	21.5	20
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: When the PV input voltage is higher than 490V, the battery charging and discharging power will be gradually limited, and the power limitation will be lifted after the input voltage is lowered.

*3: The max power is the actual power of PV.

*4: When the input voltage is greater than 560V, the inverter will enter standby mode. When the voltage returns to below 550V, the inverter will return to normal operation state.

*5: 4600 for VDE-AR-N4105 & NRS 097-2-1.

*: Please visit GoodWe website for the latest certificates.