



## 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 <math>< 10\text{ms}</math>

 Smart home integration

 Parallel connection



## 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 <sup>1</sup>	Li-Ion					
Nominal Battery Voltage (V)	48					
Battery Voltage Range (V)	40 ~ 60					
Max. Continuous Charging Current (A) <sup>1</sup>	75	60	120	60	120	60
Max. Continuous Discharging Current (A) <sup>1</sup>	75	60	120	60	120	60
Max. Charge Power (W) <sup>1</sup>	3600	3000	5000	3000	6000	3000
Max. Discharge Power (W)	3900	3200	5300	3200	6300	3200

### PV String Input Data

Max. Input Power (W) <sup>2</sup>	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	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 <sup>3</sup>	5000 <sup>3</sup>	6000 <sup>3</sup>	6000 <sup>3</sup>
Max. Apparent Power Output to Utility Grid (VA)	3680	3680	5000 <sup>3</sup>	5000 <sup>3</sup>	6000 <sup>3</sup>	6000 <sup>3</sup>
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 Frequency (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 x H x D mm)	505.9 x 434.9 x 154.8					
Topology	Non-isolated					
Self-consumption at Night (W)	<10					
Ingress Protection Rating	IP65					
Mounting Method	Wall Mounted					

<sup>1</sup>: The actual charge and discharge current / power also depends on the battery.  
<sup>2</sup>: The max power is the actual power of PV.

<sup>3</sup>: 4600 for VDE-AR-N4105 & NRS 097-2-1.  
 \*: Please visit GoodWe website for the latest certificates.