GOODWE

# ET LV Series 5-20kW

Three phase | 2/3/4 MPPTs Hybrid inverter

Low Voltage, High Impact






























*1 Optional functions or devices are purchased separately.

*2 Available on selected models only.

# ET LV Series

GOODWE

| Technical Data | GW5K-ET-L-G10 | GW6K-ET-L-G10 | GW8K-ET-L-G10 | GW10K-ET-L-G10 | GW12K-ET-L-G10 | GW15K-ET-L-G10 | GW20K-ET-L-G10 |
|---|---|---|---|---|---|---|---|
| **Battery Side**[*1] | | | | | | | |
| Battery Type | LFP ($LiFePO_4$) / Lead-acid | | | | | | |
| Nominal Battery Voltage (V) | 48 | | | | | | |
| Battery voltage range (V) | 40 ~ 60 | | | | | | |
| Start-up Voltage (V) | 30 | | | | | | |
| Number of Battery Inputs | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| Max. Continuous Charging Current (A) | 125 | 135 | 175 | 220 | 250 | 165 / 165 | 208 / 208 |
| Max. Continuous Discharging Current (A) | 125 | 135 | 175 | 220 | 250 | 165 / 165 | 208 / 208 |
| Max. Charging Power (kW) | 5 | 6 | 8 | 10 | 12 | 15 | 20 |
| Max. Discharging Power (kW) | 5.5 | 6.6 | 8.8 | 11.0 | 13.2 | 16.5 | 22.0 |
| **PV Side** | | | | | | | |
| Max. Input Power (kW) | 10 | 12 | 16 | 20 | 24 | 30 | 40 |
| Max. Input Voltage (V)[*2] | 1000 | | | | | | |
| MPPT Operating Voltage Range (V)[*3] | 150 ~ 850 | | | | | | |
| Start-up Voltage (V) | 180 | | | | | | |
| Nominal Input Voltage (V) | 620 | | | | | | |
| Max. MPPT Current (A) | 20 / 20 | 20 / 20 | 20 / 20 | 20 / 20 / 20 | 20 / 20 / 20 | 20 / 20 / 20 / 20 | 20 / 20 / 20 / 20 |
| Max. MPPT Short Circuit Current (A) | 26 / 26 | 26 / 26 | 26 / 26 | 26 / 26 / 26 | 26 / 26 / 26 | 26 / 26 / 26 / 26 | 26 / 26 / 26 / 26 |
| Number of MPPTs | 2 | 2 | 2 | 3 | 3 | 4 | 4 |
| Number of Strings per MPPT | 1 / 1 | 1 / 1 | 1 / 1 | 1 / 1 / 1 | 1 / 1 / 1 | 1 / 1 / 1 / 1 | 1 / 1 / 1 / 1 |
| **AC Side (On-grid)** | | | | | | | |
| Nominal Power (kW) | 5.0 | 6.0 | 8.0 | 10.0 | 12.0 | 15.0 | 20.0 |
| Max. Power (kW) | 5.5[*4] | 6.6[*4] | 8.8[*4] | 11.0[*4] | 13.2[*4] | 16.5[*4] | 22.0[*4] |
| Nominal Apparent Power Output to Grid (kVA) | 5.0 | 6.0 | 8.0 | 10.0 | 12.0 | 15.0 | 20.0 |
| Max. Apparent Power to Utility Grid (kVA)[*5] | 5.5[*4] | 6.6[*4] | 8.8[*4] | 11.0[*4] | 13.2[*4] | 16.5[*4] | 22.0[*4] |
| Nominal Apparent Power from Grid (kVA) | 5.0 | 6.0 | 8.0 | 10.0 | 12.0 | 15.0 | 20.0 |
| Max. Apparent Power from Grid (kVA) | 48.3 | 48.3 | 48.3 | 48.3 | 48.3 | 48.3 | 48.3 |
| Nominal Voltage (V) | 400 / 380, 3L / N / PE | | | | | | |
| Voltage Range (V) | 295 ~ 502 | | | | | | |
| Nominal Frequency (Hz) | 50 / 60 | | | | | | |
| Frequency Range (Hz) | 45 ~ 65 | | | | | | |
| Max. Current to Grid (A) | 7.9@230V<br>8.3@220V | 9.6@230V<br>10@220V | 12.8@230V<br>13.4@220V | 15.9@230V<br>16.7@220V | 19.1@230V<br>20@220V | 23.9@230V<br>25@220V | 31.9@230V<br>33.3@220V |
| Max. Current From Grid (A) | 70 | | | | | | |
| Nominal Current From Grid (A) | 7.5@220V<br>7.2@230V | 9.1@220V<br>8.7@230V | 12.1@220V<br>11.6@230V | 15.2@220V<br>14.5@230V | 18.2@220V<br>17.4@230V | 22.7@220V<br>21.7@230V | 30.3@220V<br>29@230V |
| Nominal Current to Grid (A) | 7.5@220V<br>7.2@230V | 9.1@220V<br>8.7@230V | 12.1@220V<br>11.6@230V | 15.2@220V<br>14.5@230V | 18.2@220V<br>17.4@230V | 22.7@220V<br>21.7@230V | 30.3@220V<br>29.0@230V |
| Power Factor | ~1 (Adjustable from0.8 leading~0.8 lagging) | | | | | | |
| THDI | <3% | | | | | | |
| **Back-up Side** | | | | | | | |
| Nominal Output Apparent Power (kVA) | 5 | 6 | 8 | 10 | 12 | 15 | 20 |
| Max. Output Apparent Power (kVA) | 5.5 (10.0, 10s) | 6.6 (12.0, 10s) | 8.8 (16.0, 10s) | 11.0 (20.0, 10s) | 13.2 (24.0, 10s) | 16.5 (30.0, 10s) | 22.0 (40.0, 10s) |
| Max. Output Apparent Power with Grid (kVA) | 48.3 | | | | | | |
| Max. Output Current (Bypass) | 70 | | | | | | |
| Nominal Output Voltage (V) | 400 / 380, 3L / N / PE | | | | | | |
| Nominal Output Frequency (Hz) | 50 / 60 | | | | | | |
| **Generator Side** | | | | | | | |
| Nominal Apparent Power (kVA) | 20 | | | | | | |
| Max. Apparent Power (kVA) | 20 | | | | | | |
| Nominal Voltage (V) | 400 / 380 | | | | | | |
| Nominal Frequency (Hz) | 50 / 60 | | | | | | |
| Frequency Range (Hz) | 45 ~ 55 / 55 ~ 65 | | | | | | |
| Max. Current (A) | 30.3 | | | | | | |
| **Efficiency** | | | | | | | |
| Max. Efficiency | 97.8% | 97.8% | 97.8% | 97.8% | 97.8% | 97.9% | 97.8% |
| European Efficiency | 97.0% | 97.0% | 97.1% | 97.3% | 97.3% | 97.3% | 97.4% |
| 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 | | | | | | |
| Battery Reverse Polarity Protection | Optional | Optional | Optional | Optional | Optional[*6] | Optional[*6] | Optional[*6] |
| 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 II | | | | | | |
| AFCI[*7] | Optional | | | | | | |
| Rapid Shutdown | Optional | | | | | | |
| Remote Shutdown | Integrated | | | | | | |
| **General Data** | | | | | | | |
| Operating Temperature Range (°C) | -35 ~ +60 | | | | | | |
| Relative Humidity | 0 ~ 95% | | | | | | |
| Max. Operating Altitude (m) | 4000 | | | | | | |
| Cooling Method | Smart Fan Cooling | | | | | | |
| User Interface | LCD | | | | | | |
| Communication with BMS | CAN | | | | | | |
| Communication | WIFI+LAN+Bluetooth, 4G, RS485, CAN | | | | | | |
| Communication Protocols | Modbus RTU (RS485), Modbus TCP / IP (Ethernet), Sunspec Modbus RTU | | | | | | |
| Weight (kg) | 42.2 | 42.2 | 42.2 | 45.3 | 45.3 | 49.7 | 51.2 |
| Dimension (W x H x D mm) | 551 x 756 x 258 | | | | | | |
| Noise Emission (dB) | <45 | | | | | | |
| Power Self-consumption at Night (W) | <15 | | | | | | |
| Ingress Protection Rating | IP66 | | | | | | |
| Anti-corrosion Class | C4 | | | | | | |
| Mounting Method | Wall Mounted | | | | | | |

*1: Different models of batteries cannot be mixed in parallel on same battery input.
*2: When the input voltage is greater than 980V, the inverter will enter standby mode, and when the voltage returns to below 950V the inverter will return to normal operation.
*3: Please refer to the user manual for the MPPT Voltage Range at Nominal Power.
*4: For Brazil and Chile and Sri Lanka, the Max. Power is the same with the Nominal Power.
*5: For Chile, Max. Apparent Power to Utility Grid is same as Nominal Apparent Power Output to Grid.
*6: For Brazil, for GW12K-ET-L-G10, GW15K-ET-L-G10 and GW20K-ET-L-G10, the Battery Reverse Polarity Protection is integrated.
*7: AFCI is integrated in Brazil.
*: Please visit GoodWe website for the latest certificates.
*: All pictures shown are for reference only. Actual appearance may vary.

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