

# GOODWE

## ET Series

### 5-10kW | Three Phase HV Hybrid Inverter

The GoodWe ET series is a three-phase high voltage energy storage inverter that enables enhanced energy independence and maximizes self-consumption through an export limit feature and time of use shifts for reduced electricity bills. Covering a power range of 5kW to 10kW, the ET series allows up to 110% overloading to maximize power output and features Uninterruptible Power Supply (UPS) to inductive loads such as air conditioners or refrigerators. With an automatic switchover time of less than 10 milliseconds, the inverter can provide grid-tied savings when the grid is up and off-grid independence and security when it is down or compromised.



98.2% Maximum System Efficiency



8 ms UPS-level Switching



100% Unbalanced Load



Battery Voltage 180-600V

| Technical Data  | GW5K-ET                | GW6.5K-ET                                       | GW8K-ET                | GW10K-ET               |
|---|------------------------|---|------------------------|------------------------|
| <b>Battery Input Data</b>                                       |                        |   |                        |                        |
| Battery Type  | Li-Ion                 | Li-Ion  | Li-Ion                 | Li-Ion                 |
| Battery Voltage Range (V)                                       | 180~600                | 180~600   | 180~600                | 180~600                |
| Max. Charging Current (A)                                       | 25                     | 25  | 25                     | 25                     |
| Max. Discharging Current (A)                                    | 25                     | 25  | 25                     | 25                     |
| Charging Strategy for Li-Ion Battery                            | Self-adaption to BMS   | Self-adaption to BMS                            | Self-adaption to BMS   | Self-adaption to BMS   |
| <b>PV String Input Data</b>                                     |                        |   |                        |                        |
| Max. DC Input Power (W)   | 6500                   | 8450  | 9600                   | 13000                  |
| Max. DC Input Voltage (V)* <sup>1</sup>                         | 1000                   | 1000  | 1000                   | 1000                   |
| MPPT Range (V)* <sup>2</sup>                                    | 200~850                | 200~850   | 200~850                | 200~850                |
| Start-up Voltage (V)  | 180                    | 180   | 180                    | 180                    |
| Min. Feed-in Voltage (V)  | 210                    | 210   | 210                    | 210                    |
| MPPT Range for Full Load (V)* <sup>3</sup>                      | 240~850                | 310~850   | 380~850                | 460~850                |
| Nominal DC Input Voltage (V)* <sup>4</sup>                      | 620                    | 620   | 620                    | 620                    |
| Max. Input Current (A)  | 12.5 / 12.5            | 12.5 / 12.5                                     | 12.5 / 12.5            | 12.5 / 12.5            |
| Max. Short Current (A)  | 15.2 / 15.2            | 15.2 / 15.2                                     | 15.2 / 15.2            | 15.2 / 15.2            |
| Number of MPPTs   | 2                      | 2   | 2                      | 2                      |
| Number of Strings per MPPT                                      | 1 / 1                  | 1 / 1   | 1 / 1                  | 1 / 1                  |
| <b>AC Output Data (On-grid)</b>                                 |                        |   |                        |                        |
| Nominal Apparent Power Output to Utility Grid (VA)              | 5000                   | 6500  | 8000                   | 10000                  |
| Max. Apparent Power Output to Utility Grid (VA)* <sup>5,9</sup> | 5500                   | 7150  | 8800                   | 11000                  |
| Max. Apparent Power from Utility Grid (VA)                      | 10000                  | 13000   | 15000                  | 15000                  |
| Nominal Output Voltage (V)                                      | 400 / 380, 3L / N / PE | 400 / 380, 3L / N / PE                          | 400 / 380, 3L / N / PE | 400 / 380, 3L / N / PE |
| Nominal Output Frequency (Hz)                                   | 50 / 60                | 50 / 60   | 50 / 60                | 50 / 60                |
| Max. AC Current Output to Utility Grid (A)                      | 8.5                    | 10.8  | 13.5                   | 16.5                   |
| Max. AC Current from Utility Grid (A)                           | 15.2                   | 19.7  | 22.7                   | 22.7                   |
| Output Power Factor   |                        | ~1 (Adjustable from 0.8 leading to 0.8 lagging) |                        |                        |
| Output THDi (@Nominal Output)                                   | <3%                    | <3%   | <3%                    | <3%                    |
| <b>AC Output Data (Back-up; Optional)</b>                       |                        |   |                        |                        |
| Max. Output Apparent Power (VA)                                 | 5000                   | 6500  | 8000                   | 10000                  |
| Peak Output Apparent Power (VA)* <sup>6</sup>                   | 10000, 60sec           | 13000, 60sec                                    | 16000, 60sec           | 16500, 60sec           |
| Max. Output Current (A)   | 8.5                    | 10.8  | 13.5                   | 16.5                   |
| Nominal Output Voltage (V)                                      | 400/380                | 400/380   | 400/380                | 400/380                |
| Nominal Output Frequency (Hz)                                   | 50/60                  | 50/60   | 50/60                  | 50/60                  |
| Output THDv (@Linear Load)                                      | <3%                    | <3%   | <3%                    | <3%                    |
| <b>Efficiency</b>   |                        |   |                        |                        |
| Max. Efficiency   | 98.0%                  | 98.0%   | 98.2%                  | 98.2%                  |
| Max. Battery to Load Efficiency                                 | 97.5%                  | 97.5%   | 97.5%                  | 97.5%                  |
| European Efficiency   | 97.2%                  | 97.2%   | 97.5%                  | 97.5%                  |
| <b>Protection</b>   |                        |   |                        |                        |
| Anti-Islanding Protection                                       | Integrated             | Integrated                                      | Integrated             | Integrated             |
| PV String Input Reverse Polarity Protection                     | Integrated             | Integrated                                      | Integrated             | Integrated             |
| Insulation Resistor Detection                                   | Integrated             | Integrated                                      | Integrated             | Integrated             |
| Residual Current Monitoring Unit                                | Integrated             | Integrated                                      | Integrated             | Integrated             |
| Output Over Current Protection                                  | Integrated             | Integrated                                      | Integrated             | Integrated             |
| Output Short Protection   | Integrated             | Integrated                                      | Integrated             | Integrated             |
| Battery Input Reverse Polarity Protection                       | Integrated             | Integrated                                      | Integrated             | Integrated             |
| Output Over Voltage Protection                                  | Integrated             | Integrated                                      | Integrated             | Integrated             |
| <b>General Data</b>   |                        |   |                        |                        |
| Operating Temperature Range (°C)                                | -35~60                 | -35~60  | -35~60                 | -35~60                 |
| Relative Humidity   | 0~95%                  | 0~95%   | 0~95%                  | 0~95%                  |
| Operating Altitude (m)  | ≤4000                  | ≤4000   | ≤4000                  | ≤4000                  |
| Cooling   | Natural Convection     | Natural Convection                              | Natural Convection     | Natural Convection     |
| Noise (dB)  | <30                    | <30   | <30                    | <30                    |
| User Interface  | LED & APP              | LED & APP                                       | LED & APP              | LED & APP              |
| Communication with BMS* <sup>7</sup>                            | RS485; CAN             | RS485; CAN                                      | RS485; CAN             | RS485; CAN             |
| Communication with Meter  | RS485                  | RS485   | RS485                  | RS485                  |
| Communication with EMS  | RS485 (Insulated)      | RS485 (Insulated)                               | RS485 (Insulated)      | RS485 (Insulated)      |
| Communication with Portal                                       | Wi-Fi                  | Wi-Fi   | Wi-Fi                  | Wi-Fi                  |
| Weight (Kg)   | 24                     | 24  | 24                     | 24                     |
| Size (Width × Height × Depth mm)                                | 415 × 516 × 180        | 415 × 516 × 180                                 | 415 × 516 × 180        | 415 × 516 × 180        |
| Mounting  | Wall Bracket           | Wall Bracket                                    | Wall Bracket           | Wall Bracket           |
| Protection Degree   | IP66                   | IP66  | IP66                   | IP66                   |
| Standby Self-Consumption (W)* <sup>8</sup>                      | <15                    | <15   | <15                    | <15                    |
| Topology  | Battery Non-Isolation  | Battery Non-Isolation                           | Battery Non-Isolation  | Battery Non-Isolation  |

\*<sup>1</sup>: For 1000V system, Maximum operating voltage is 950V.  
 For AustraliaL safety, there will be a warning if PV voltage > 600V.  
 \*<sup>2</sup>: For AustraliaL safety, MPPT range is 200~550V.  
 \*<sup>3</sup>: For AustraliaL safety, MPPT voltage upper limit is 550V.  
 \*<sup>4</sup>: For AustraliaL safety, nominal DC input voltage is 450V.  
 \*<sup>5</sup>: According to the local grid regulation.

\*<sup>6</sup>: Can be reached only if PV and battery power is enough.  
 \*<sup>7</sup>: CAN communication is configured by default. If 485 communication is used, please replace the corresponding communication line.  
 \*<sup>8</sup>: No Back-up Output.  
 \*<sup>9</sup>: For Belgium Max. Output Apparent Power (VA): GW5K-ET is 5000; GW6.5K-ET is 6500; GW8K-ET is 8000; GW10K-ET is 10000.  
 \*: Please visit GoodWe website for the latest certificates.