

MT Series

50-80kW | 4 MPPTs | Three Phase

The second generation of GoodWe MT series inverter is suited for medium and large scale commercial rooftops and ground-mounted solar PV systems where maximum versatility and profitability are important. With its compact design and power boost function, the Goodwe MT series of the new generation can provide a 150% continuous maximum AC output power overload, offering a faster return on investment. The start-up voltage is 200V, much lower than other products, which makes the inverter start up earlier, therefore generating more power over time.



Up to 150% DC input oversizing



String level monitoring



Up to 115% AC output overloading



Full-load running at 50°C



Up to 99% Max. Efficiency



Power line communication

| Technical Data | GW50KN-MT | GW60KN-MT | GW50KBF-MT | GW60KBF-MT | GW70KMV-MT | GW70KHV-MT | GW80KHV-MT | GW75K-MT | GW80K-MT | GW75KBF-MT | GW80KBF-MT |
|---|--|------------------------------------|------------------------------------|------------------------------------|---------------|----------------------|---------------------|---|--|----------------------|---------------------|
| DC Input Data | | | | | | | | | | | |
| Max. PV Power (W) | 65000 | 80000 | 65000 | 80000 | 95000 | 91000 | 120000 | 112500 | 120000 | 97500 | 104000 |
| Max. DC Input Voltage (V) | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
| MPPT Range (V) | 200~1000 | 200~1000 | 200~1000 | 200~1000 | 200~1000 | 200~1000 | 200~1000 | 200~1000 | 200~1000 | 200~1000 | 200~1000 |
| Starting Voltage (V) | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| Min. Feed-in Voltage (V) | 210 | 210 | 210 | 210 | / | 210 | 210 | 210 | 210 | 210 | 210 |
| Nominal DC Input Voltage (V) | 620 | 620 | 620 | 620 | 720 | 750 | 800 | 600 | 620 | 750 | 800 |
| Max. Input Current per MPPT (A) | 33 / 33 / 22 / 22 | 33 | 30 | 44 | 39 | 33 | 44 | 44 | 44 | 44 | 39 |
| Max. Short Circuit Current per MPPT (A) | 41.5 / 41.5 / 27.5 / 27.5 | 41.5 | 37.5 | 55 | 55 | 41.5 | 55 | 55 | 55 | 55 | 54.8 |
| Number of MPPTs | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Number of Strings per MPPT | 3 / 3 / 2 / 2 | 3 | 2 | 3 | 3 | 3 | 3 | 4 (Standard) 3 (Optional, Support bifacial module) | 3 | 3 | 3 |
| AC Output Data | | | | | | | | | | | |
| Nominal Output Power (W) | 50000 | 60000 | 50000 | 60000 | 70000 | 70000 | 80000 | 75000 | 80000 | 75000 | 80000 |
| Max. AC Active Power (cosφ=1) | 55000; 57500 @415Vac ^{*1} | 66000; 69000 @415Vac ^{*1} | 55000; 57500 @415Vac ^{*1} | 66000; 69000 @415Vac ^{*1} | 77000 | 77000* ¹ | 88000* ¹ | 75000 | 88000* ¹ | 82500* ¹ | 88000* ¹ |
| Max. Output Apparent Power (VA) | 55000; 57500 @415Vac ^{*2} | 66000; 69000 @415Vac ^{*2} | 55000; 57500 @415Vac ^{*2} | 66000; 69000 @415Vac ^{*2} | 77000 | 77000* ² | 88000* ² | 75000 | 88000* ² | 82500* ² | 88000* ² |
| Nominal Output Voltage (V) | 400, default 3L+N+PE, 3L+PE optional in settings | | | | 480, 3L / PE | 500, 3L / PE | 540, 3L / PE | 380 / 415 | 400, default 3L+N+PE, 3L+PE optional in settings | 500, 3L / PE | 540, 3L / PE |
| Nominal Output Frequency (Hz) | 50 / 60 | 50 / 60 | 50 / 60 | 50 / 60 | 50 / 60 | 50 / 60 | 50 / 60 | 50 / 60 | 50 / 60 | 50 / 60 | 50 / 60 |
| Max. Output Current (A) | 80 | 96 | 80 | 96 | 92.6 | 89 | 94.1 | 133 | 133 | 95.3 | 94.1 |
| Output Power Factor | ~1 (Adjustable from 0.8 leading to 0.8 lagging) | | | | | | | | | | |
| Output THDi (@Nominal Output) | <3% | <3% | <3% | <3% | <3% | <3% | <3% | <3% | <3% | <3% | <3% |
| Efficiency | | | | | | | | | | | |
| Max. Efficiency | 98.7% | 98.8% | 98.8% | 98.8% | 99.0% | 99.0% | 99.0% | 98.8% | 98.8% | 99.0% | 99.0% |
| European Efficiency | 98.3% | 98.5% | 98.3% | 98.3% | 98.4% | 98.4% | 98.4% | 98.3% | 98.3% | 98.4% | 98.4% |
| Protection | | | | | | | | | | | |
| PV String Current Monitoring | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated |
| Anti-Islanding Protection | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated |
| Input Reverse Polarity Protection | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated |
| Insulation monitoring | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated |
| DC fuse | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated |
| Anti-PID Function for Module | Optional | Optional | Optional | Optional | Optional | Optional | Optional | Optional | Optional | Optional | Optional |
| DC Surge Arrester | Integrated (Type II) | | | | | | | | | | |
| AC Surge Arrester | Integrated (Type II) | | | | | | | | | | |
| Residual Current Monitoring Unit | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated |
| AC Over Current Protection | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated |
| AC Short Circuit Protection | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated |
| AC Over Voltage Protection | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated |
| Humidity Monitoring | - | - | - | - | - | NA | NA | Integrated | Integrated | NA | NA |
| General Data | | | | | | | | | | | |
| Ambient Temperature Range (°C) | -30~60 | -30~60 | -30~60 | -30~60 | -30~60 | -30~60 | -30~60 | -30~60 | -30~60 | -30~60 | -30~60 |
| Relative Humidity | 0~100% | 0~100% | 0~100% | 0~100% | 0~100% | 0~100% | 0~100% | 0~100% | 0~100% | 0~100% | 0~100% |
| Operating Altitude (m) | ≤4000 | ≤4000 | ≤4000 | ≤4000 | ≤4000 | ≤4000 | ≤4000 | ≤4000 | ≤4000 | ≤4000 | ≤4000 |
| Cooling | Fan Cooling | | | | | | | | | | |
| Display | LCD or WiFi+APP | | | LED, WiFi+APP | | LCD or WiFi+APP | | LED, WiFi+APP | | | |
| Communication | RS485 or WiFi or PLC | | | | RS485 or WiFi | RS485 or WiFi or PLC | | RS485 & WiFi, PLC (Optional) | | RS485 or WiFi or PLC | |
| Weight (Kg) | 59 | 64 | 60 | 65 | 65 | 60 | 65 | 70 | 70 | 65 | 65 |
| Dimension (Width x Height x Depth mm) | 586 x 788 x 264 | | | 586 x 788 x 267 | | 586 x 788 x 264 | | 586 x 788 x 267 | | | |
| Protection Degree | IP65 | IP65 | IP65 | IP65 | IP65 | IP65 | IP65 | IP65 | IP65 | IP65 | IP65 |
| Night Self Consumption (W) | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Topology | Transformerless | | | | | | | | | | |

*1: For Belgium Max. Output Power (W): GW50KN-MT is 50000; GW60KN-MT is 60000; GW50KBF-MT is 50000; GW60KBF-MT is 60000; GW70KHV-MT is 70000; GW80KHV-MT is 80000; GW80K-MT is 80000; GW75KBF-MT is 75000; GW80KBF-MT is 80000.

*2: For Belgium Max. Output Apparent Power (VA): GW50KN-MT is 50000; GW60KN-MT is 60000; GW50KBF-MT is 50000; GW60KBF-MT is 60000; GW70KHV-MT is 70000; GW80KHV-MT is 80000; GW80K-MT is 80000; GW75KBF-MT is 75000; GW80KBF-MT is 80000.

*: Please visit GoodWe website for the latest certificates.