

# GOODWE

## SDT G3 Series

4-30kW | Three Phase | 2 MPPTs

The GoodWe SDT G3 Series, with a power range of 4-30kW, is specifically engineered to cater to the energy needs of three-phase residential and small commercial projects. The inverter boasts an impressive 150% DC oversizing and 110% AC overloading capabilities, allowing for maximum performance and output even in challenging environments. In addition, the SDT G3 Series inverter's lightweight and easy-to-install design offers exceptional convenience for operators and installers alike.



### Smart Control & Monitoring

- 24/7 load consumption monitoring
- Export power limit



### Friendly & Thoughtful Design

- Fanless cooling for quiet operation<sup>2</sup>
- Elegant and compact design



### Superb Safety & Reliability

- Optional AFCI<sup>1</sup>
- IP66 ingress protection
- Optional Type II SPD on both AC and DC sides<sup>1</sup>



### Flexible & Adaptable Applications

- Up to 150% DC input oversizing & 110% AC output overloading
- Max. 22A DC input current per string
- Optional PID recovery<sup>1</sup>

<sup>1</sup>: Optional functions or devices are purchased separately.

<sup>2</sup>: For SDT G3 4-15kW only.

| Technical Data                                  |  | GW4000-SDT-30                                   | GW5000-SDT-30 | GW6000-SDT-30            | GW8000-SDT-30 | GW10K-SDT-30 | GW10K-SDT-EU30 | GW12K-SDT-30                                             | GW15K-SDT-30 | GW17K-SDT-30             | GW20K-SDT-30 | GW12KLV-SDT-C30                                         | GW17KLV-SDT-C30 | GW25K-SDT-C30                           | GW30K-SDT-C30 |                                                         |  |
|-------------------------------------------------|--|-------------------------------------------------|---------------|--------------------------|---------------|--------------|----------------|----------------------------------------------------------|--------------|--------------------------|--------------|---------------------------------------------------------|-----------------|-----------------------------------------|---------------|---------------------------------------------------------|--|
| Input                                           |  |                                                 |               |                          |               |              |                |                                                          |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| Max. Input Voltage (V) <sup>3</sup>             |  | 1100                                            |               |                          |               |              |                |                                                          |              |                          |              | 850                                                     |                 | 1100                                    |               |                                                         |  |
| MPPT Operating Voltage Range (V) <sup>4</sup>   |  | 140 ~ 1000                                      |               |                          |               |              |                |                                                          |              |                          |              | 140 ~ 700                                               |                 | 140 ~ 1000                              |               |                                                         |  |
| Start-up Voltage (V)                            |  | 160                                             |               |                          |               |              |                |                                                          |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| Nominal Input Voltage (V)                       |  | 600                                             |               |                          |               |              |                |                                                          |              |                          |              | 420                                                     |                 | 600                                     |               |                                                         |  |
| Max. Input Current per MPPT (A)                 |  | 22                                              |               |                          |               |              | 32 / 22        |                                                          |              |                          |              | 42 / 32                                                 |                 | 42 / 22 42 / 32                         |               |                                                         |  |
| Max. Short Circuit Current per MPPT (A)         |  | 27.5                                            |               |                          |               |              | 40.0 / 27.5    |                                                          |              |                          |              | 52.5 / 40.0                                             |                 | 52.5 / 27.5 52.5 / 40.0                 |               |                                                         |  |
| Number of MPP Trackers                          |  | 2                                               |               |                          |               |              |                |                                                          |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| Number of Strings per MPPT                      |  | 1                                               |               |                          |               |              | 2 / 1          |                                                          |              |                          |              | 2                                                       |                 | 2 / 1 2                                 |               |                                                         |  |
| Output                                          |  |                                                 |               |                          |               |              |                |                                                          |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| Nominal Output Power (kW)                       |  | 4.0                                             | 5.0           | 6.0                      | 8.0           | 10.0         | 10.0           | 12.0                                                     | 15.0         | 17.0                     | 20.0         | 12.0                                                    | 17.0            | 25.0                                    | 30.0          |                                                         |  |
| Nominal Output Apparent Power (kVA)             |  | 4.0                                             | 5.0           | 6.0                      | 8.0           | 10.0         | 10.0           | 12.0                                                     | 15.0         | 17.0                     | 20.0         | 12.0                                                    | 17.0            | 25.0                                    | 30.0          |                                                         |  |
| Max. AC Active Power (kW) <sup>1</sup>          |  | 4.4                                             | 5.5           | 6.6                      | 8.8           | 11.0         | 10.0           | 13.2                                                     | 16.5         | 18.7                     | 22.0         | 12.0                                                    | 17.0            | 27.5                                    | 33.0          |                                                         |  |
| Max. AC Apparent Power (kVA)                    |  | 4.4                                             | 5.5           | 6.6                      | 8.8           | 11.0         | 10.0           | 13.2                                                     | 16.5         | 18.7                     | 22.0         | 12.0                                                    | 17.0            | 27.5                                    | 33.0          |                                                         |  |
| Nominal Power at 40°C (kW)                      |  | 4.0                                             | 5.0           | 6.0                      | 8.0           | 10.0         | 10.0           | 12.0                                                     | 15.0         | 17.0                     | 20.0         | 12.0                                                    | 17.0            | 25.0                                    | 30.0          |                                                         |  |
| Max. Power at 40°C (Including AC Overload) (kW) |  | 4.0                                             | 5.0           | 6.0                      | 8.0           | 10.0         | 10.0           | 12.0                                                     | 15.0         | 17.0                     | 20.0         | 12.0                                                    | 17.0            | 25.0                                    | 30.0          |                                                         |  |
| Nominal Output Voltage (V)                      |  |                                                 |               |                          |               |              |                |                                                          |              |                          |              | 220 / 380, 230 / 400, 240 / 415, 3L / N / PE or 3L / PE |                 | 127 / 220, 3L / N / PE or 3L / PE       |               | 220 / 380, 230 / 400, 240 / 415, 3L / N / PE or 3L / PE |  |
| Output Voltage Range (V)                        |  |                                                 |               |                          |               |              |                |                                                          |              |                          |              | 180 ~ 280 (according to local standard)                 |                 | 114 ~ 139 (according to local standard) |               | 180 ~ 280 (according to local standard)                 |  |
| Nominal AC Grid Frequency (Hz)                  |  |                                                 |               |                          |               |              |                |                                                          |              |                          |              | 50 / 60                                                 |                 | 60                                      |               | 50 / 60                                                 |  |
| AC Grid Frequency Range (Hz)                    |  |                                                 |               |                          |               |              |                |                                                          |              |                          |              | 45 ~ 55 / 55 ~ 65                                       |                 | 59.5 ~ 60.2                             |               | 45 ~ 55 / 55 ~ 65                                       |  |
| Max. Output Current (A) <sup>2</sup>            |  | 6.7                                             | 8.4           | 10.0                     | 13.4          | 16.7         | 15.2           | 20.0                                                     | 25.0         | 28.3                     | 33.3         | 33.3                                                    | 50.0            | 41.7                                    | 50.0          |                                                         |  |
| Power Factor                                    |  | ~1 (Adjustable from 0.8 leading to 0.8 lagging) |               |                          |               |              |                |                                                          |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| Max. Total Harmonic Distortion                  |  | <3%                                             |               |                          |               |              |                |                                                          |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| Efficiency                                      |  |                                                 |               |                          |               |              |                |                                                          |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| Max. Efficiency                                 |  | 98.4%                                           | 98.4%         | 98.4%                    | 98.5%         | 98.5%        | 98.5%          | 98.5%                                                    | 98.5%        | 98.5%                    | 98.5%        | 98.2%                                                   | 97.5%           | 98.6%                                   | 98.6%         |                                                         |  |
| European Efficiency                             |  | 98.0%                                           | 98.0%         | 98.0%                    | 98.0%         | 98.0%        | 98.0%          | 98.2%                                                    | 98.2%        | 98.2%                    | 98.2%        | 97.2%                                                   | 96.9%           | 98.2%                                   | 98.3%         |                                                         |  |
| 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 III (Type II Optional)                              |              |                          |              | Type II                                                 |                 | Type III (Type II Optional)             |               |                                                         |  |
| AC Surge Protection                             |  |                                                 |               |                          |               |              |                | Type III (Type II Optional)                              |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| AFCI                                            |  |                                                 |               |                          |               |              |                | Optional                                                 |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| Emergency Power Off                             |  |                                                 |               |                          |               |              |                | Optional                                                 |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| Rapid Shutdown                                  |  |                                                 |               |                          |               |              |                | Optional                                                 |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| Remote Shutdown                                 |  |                                                 |               |                          |               |              |                | Optional                                                 |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| PID Recovery                                    |  |                                                 |               |                          |               |              |                | Optional                                                 |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| Power Supply at Night                           |  |                                                 |               | Integrated               |               |              |                | Optional                                                 |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| General Data                                    |  |                                                 |               |                          |               |              |                |                                                          |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| Operating Temperature Range (°C)                |  |                                                 |               |                          |               |              |                | -30 ~ +60                                                |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| Relative Humidity                               |  |                                                 |               |                          |               |              |                | 0 ~ 100%                                                 |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| Max. Operating Altitude (m)                     |  |                                                 |               |                          |               |              |                | 4000                                                     |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| Cooling Method                                  |  |                                                 |               | Natural Convection       |               |              |                |                                                          |              |                          |              | Smart Fan Cooling                                       |                 |                                         |               |                                                         |  |
| User Interface                                  |  |                                                 |               |                          |               |              |                | LED, LCD (Optional), WLAN + APP                          |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| Communication                                   |  |                                                 |               |                          |               |              |                | RS485, WiFi + LAN + Bluetooth, 4G + Bluetooth (Optional) |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| Communication Protocols                         |  |                                                 |               |                          |               |              |                | Modbus-RTU (SunSpec Compliant), Modbus-TCP               |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| Weight (kg)                                     |  |                                                 |               | 14.7                     |               |              |                | 16.2                                                     |              |                          |              | 17.1 20.5 19.7 20.5                                     |                 |                                         |               |                                                         |  |
| Dimension (W x H x D mm)                        |  |                                                 |               | 491 x 392 x 210          |               |              |                |                                                          |              |                          |              | 530 x 413 x 227                                         |                 |                                         |               |                                                         |  |
| Noise Emission (dB)                             |  |                                                 |               | <30                      |               |              |                |                                                          |              |                          |              | <45                                                     |                 |                                         |               |                                                         |  |
| Topology                                        |  |                                                 |               |                          |               |              |                | Non-isolated                                             |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| Self-consumption at Night (W)                   |  |                                                 |               |                          |               |              |                | <1                                                       |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| Ingress Protection Rating                       |  |                                                 |               |                          |               |              |                | IP66                                                     |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| DC Connector                                    |  |                                                 |               |                          |               |              |                | MC4 (4 ~ 6mm²)                                           |              |                          |              |                                                         |                 |                                         |               |                                                         |  |
| AC Connector                                    |  |                                                 |               | OT terminal (Max. 10mm²) |               |              |                | OT terminal (Max. 16mm²)                                 |              | OT terminal (Max. 25mm²) |              | OT terminal (Max. 16mm²)                                |                 | OT terminal (Max. 25mm²)                |               |                                                         |  |

\*1: For Brazil and Chile, the Max. AC Active Power (kW) & Max. AC Apparent Power (kVA):  
 GW4000-SDT-30 is 4, GW5000-SDT-30 is 5, GW6000-SDT-30 is 6, GW8000-SDT-30 is 8,  
 GW10K-SDT-30 is 10, GW12K-SDT-30 is 12, GW15K-SDT-30 is 15, GW17K-SDT-30 is 17,  
 GW20K-SDT-30 is 20, GW12KLV-SDT-C30 is 12, GW17KLV-SDT-C30 is 17, GW25K-SDT-C30 is 25, GW30K-SDT-C30 is 30.

\*2: For Brazil and Chile, Max. Output Current (A) and Nominal Output Current (A): GW8000-SDT-30 is 12.1, GW10K-SDT-30 is 15.2, GW12K-SDT-30 is 18.2, GW15K-SDT-30 is 22.7, GW17K-SDT-30 is 25.8, GW20K-SDT-30 is 30.3, GW12KLV-SDT-C30 is 33.3, GW17KLV-SDT-C30 is 50, GW25K-SDT-C30 is 37.9, GW30K-SDT-C30 is 45.5.

\*3: When the input voltage is 1000V-1100V, the inverter will enter standby mode. The inverter will return to normal operation state when the voltage returns to the MPPT working voltage range.

\*4: Please refer to the user manual for the MPPT Voltage Range at Nominal Power.

\*5: Please visit GoodWe website for the latest certificates.

\*6: All pictures shown are for reference only. Actual appearance may vary.