

# GOODWE

## STS Series

Static Transfer Switch  
GW250/500K-STC-PCS-G10

The GoodWe Static Transfer Switch (STS) module is a high-performance transfer switch designed for seamless grid and off-grid operation in large commercial and industrial energy storage systems. Paired with the GoodWe ESA 125kW/261kWh energy storage cabinet, it delivers UPS-level switching performance with fast, reliable protection for critical loads.



Enables UPS-level on/off-grid switching under 20ms



Paired with ESA 125kW/261kWh and on-grid inverters for easy microgrid setup



Built-in bypass switch for enhanced system reliability



Supports large-load connection for C&I applications



Allows to seamlessly integrate up to 1MW PV connection



Diesel generator control for enhanced system flexibility

| Technical Data                   |                                                        | GW250K-ST5-PCS-G10                                     | GW500K-ST5-PCS-G10                |
|----------------------------------|--------------------------------------------------------|--------------------------------------------------------|-----------------------------------|
| Grid Side                        |                                                        |                                                        |                                   |
| Nominal Voltage (V)              | 220 / 380, 230 / 400, 240 / 415, 3L / N / PE           |                                                        | 220 / 380, 230 / 400, 3L / N / PE |
| Voltage Range (V)                | 340 ~ 440                                              |                                                        |                                   |
| Nominal Frequency (Hz)           | 50 / 60                                                |                                                        |                                   |
| Frequency Range (Hz)             | 47.5 ~ 52.5 / 57.5 ~ 62.5                              |                                                        |                                   |
| Rated Current (A)                | 478.6                                                  | 957.2                                                  |                                   |
| Max. Current (A)                 | 550 @ 10s                                              | 1000 @ 10s                                             |                                   |
| Rated Power (kW)                 | 250                                                    | 500                                                    |                                   |
| Max. Apparent Power (kVA)        | 315                                                    | 630                                                    |                                   |
| Back-up Side                     |                                                        |                                                        |                                   |
| Nominal Voltage (V)              | 220 / 380, 230 / 400, 240 / 415, 3L / N / PE           |                                                        | 220 / 380, 230 / 400, 3L / N / PE |
| Voltage Range (V)                | 340 ~ 440                                              |                                                        |                                   |
| Nominal Frequency (Hz)           | 50 / 60                                                |                                                        |                                   |
| Frequency Range (Hz)             | 47.5 ~ 52.5 / 57.5 ~ 62.5                              |                                                        |                                   |
| Rated Current (A)                | 417.8                                                  | 835.6                                                  |                                   |
| Max. Current (A)                 | 550 @ 10s                                              | 1000 @ 10s                                             |                                   |
| Rated Power (kW)                 | 250                                                    | 500                                                    |                                   |
| Max. Apparent Power (kVA)        | 275                                                    | 550                                                    |                                   |
| ESS Side                         |                                                        |                                                        |                                   |
| Nominal Voltage (V)              | 220 / 380, 230 / 400, 240 / 415, 3L / N / PE           |                                                        | 220 / 380, 230 / 400, 3L / N / PE |
| Voltage Range (V)                | 340 ~ 440                                              |                                                        |                                   |
| Nominal Frequency (Hz)           | 50 / 60                                                |                                                        |                                   |
| Frequency Range (Hz)             | 47.5 ~ 52.5 / 57.5 ~ 62.5                              |                                                        |                                   |
| Rated Current (A)                | 417.8                                                  | 835.6                                                  |                                   |
| Max. Current (A)                 | 550 @ 10s                                              | 1000 @ 10s                                             |                                   |
| Rated Power (kW)                 | 250                                                    | 500                                                    |                                   |
| Max. Apparent Power (kVA)        | 275                                                    | 550                                                    |                                   |
| Smart-port Side                  |                                                        |                                                        |                                   |
| Nominal Voltage (V)              | 220 / 380, 230 / 400, 240 / 415, 3L / N / PE           |                                                        | 220 / 380, 230 / 400, 3L / N / PE |
| Voltage Range (V)                | 340 ~ 440                                              |                                                        |                                   |
| Nominal Frequency (Hz)           | 50 / 60                                                |                                                        |                                   |
| Frequency Range (Hz)             | 47.5 ~ 52.5 / 57.5 ~ 62.5                              |                                                        |                                   |
| Rated Current (A)                | 417.8                                                  | 835.6                                                  |                                   |
| Max. Current (A)                 | 550 @ 10s                                              | 1000 @ 10s                                             |                                   |
| Rated Power (kW)                 | 250                                                    | 500                                                    |                                   |
| Max. Apparent Power (kVA)        | 275                                                    | 550                                                    |                                   |
| Inverter Side                    |                                                        |                                                        |                                   |
| Nominal Voltage (V)              | 220 / 380, 230 / 400, 240 / 415, 3L / N / PE           |                                                        | 220 / 380, 230 / 400, 3L / N / PE |
| Voltage Range (V)                | 340 ~ 440                                              |                                                        |                                   |
| Nominal Frequency (Hz)           | 50 / 60                                                |                                                        |                                   |
| Frequency Range (Hz)             | 47.5 ~ 52.5 / 57.5 ~ 62.5                              |                                                        |                                   |
| Rated Current (A)                | 835.6                                                  | 1519.4                                                 |                                   |
| Max. Current (A)                 | 1100 @ 10s                                             | 1800 @ 10s                                             |                                   |
| Rated Power (kW)                 | 500                                                    | 1000 (Centralized Access 500 + Independent Access 500) |                                   |
| Max. Apparent Power (kVA)        | 550                                                    | 1000 (Centralized Access 500 + Independent Access 500) |                                   |
| General Data                     |                                                        |                                                        |                                   |
| On / Off Grid Transfer Time (ms) | <20                                                    |                                                        |                                   |
| Operating Temperature Range (°C) | -25 ~ +55                                              |                                                        |                                   |
| Relative Humidity                | 0 ~ 100%                                               |                                                        |                                   |
| Max. Operating Altitude (m)      | 4000                                                   |                                                        |                                   |
| Cooling Method                   | Smart Fan Cooling                                      |                                                        |                                   |
| Communication With EMS           | LAN + CAN                                              |                                                        |                                   |
| Weight (kg)                      | ≈450                                                   | <750.0                                                 |                                   |
| Dimension (W × H × D mm)         | 850 × 1600 × 800                                       | 1100 × 2010 × 1000                                     |                                   |
| Mounting Method                  | Grounded                                               |                                                        |                                   |
| Noise Emission (dB)              | <60                                                    |                                                        |                                   |
| Ingress Protection Rating        | IP54                                                   |                                                        |                                   |
| Overvoltage Category             | III                                                    |                                                        |                                   |
| Protective Class                 | I                                                      |                                                        |                                   |
| Certification                    |                                                        |                                                        |                                   |
| Safety Regulation                | IEC61439-1, IEC61439-2, EN61439-1, EN61439-2, IEC60730 |                                                        |                                   |

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