GOODWE

STS Series 250/500kW (Special Edition)

Static Transfer Switch

The Static Transfer Switch (STS) is a cabinet-based, cutting-edge switching solution designed for commercial and industrial energy storage systems. Fully compatible with GoodWe ESA 125kW/261kWh, it delivers UPS-level on- and off-grid switching in under 20ms.

The STS provides precise control of inverters, enabling seamless transitions between grid-tied and off-grid modes so that, in the event of a grid outage, critical loads are supplied continuously by solar power or batteries and smoothly reconnected to the grid once power is restored.

As a versatile cabinet solution, it also supports generator integration and large inductive loads such as heat pumps and motors, ensuring a reliable, flexible and efficient foundation for microgrid energy management.



- STS paired with ESA 125kW/261kWh enables UPS-level On/off-grid switching under 20ms
- Outdoor-ready for stable operation across wide temperature conditions
- Supports generator integration with remote start/stop control
- Compatible with ESA 125kW/261kWh and on-grid inverters for easy microgrid setup
- Compact and lightweight design for lower system costs and easier installation
- Enables simultaneous PV, ESS and load connections for flexible system integration

Technical Data	GW250K-STS-PCS-G10	GW500K-STS-PCS-G10
Grid Side		
Nominal Voltage (V)	220 / 380, 230 / 400, 240 / 415V, 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 / 415V, 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 (PCS) Side		
Nominal Voltage (V)	220 / 380, 230 / 400, 240 / 415V, 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 / 415V, 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
Max. Apparent Power (kVA)	550	1000
General Data		
On / Off Grid Transfer Time (ms)	<20	
Operating Temperature Range (°C)	-25 ~ +55	
Storage Temperature (°C)	-40 ~ +70	
Relative Humidity	0 ~ 100%	
Pollution Degree	III	
Max. Operating Altitude (m)	4000	
Cooling Method	Smart Fan Cooling	
Communication	LAN, CAN	
Dimension (W × H × D mm)	850 × 1600 × 480	
Mounting Method	Grounded	
Noise Emission (dB)	<60	
Ingress Protection Rating	IP54	
Overvoltage Category	III	
Protective Class	I	
Certification		
Safety Regulation	IEC 61439-1, IEC 61439-2 EN 61439-1, EN 61439-1 IEC 60730	

*: Please visit GoodWe website for the latest certificates.

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