

GOODWE

STS Series 500kW

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 20 ms. 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 500kW paired with ESA 125kW/261kWh enables UPS-level On/off-grid switching under 20 ms.



Built-in bypass switch to ensure system reliability.



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



Supports diesel generator integration with remote contactor control for seamless microgrid connection.



Built-in branch switches with no additional distribution cabinet required.



Outdoor-ready for stable operation across wide temperature conditions.

Technical Data		GW500K-ST5-PCS-G10
Grid Side		
Nominal Voltage (V)	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)	957.2	
Max. Current (A)	1000 @ 10s	
Rated Power (kW)	500	
Max. Apparent Power (kVA)	630	
Back-up Side		
Nominal Voltage (V)	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	
Max. Current (A)	1000 @ 10s	
Rated Power (kW)	500	
Max. Apparent Power (kVA)	550	
ESS Side		
Nominal Voltage (V)	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	
Max. Current (A)	1000 @ 10s	
Rated Power (kW)	500	
Max. Apparent Power (kVA)	550	
Smart-port Side		
Nominal Voltage (V)	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	
Max. Current (A)	1000 @ 10s	
Rated Power (kW)	500	
Max. Apparent Power (kVA)	550	
Inverter Side		
Nominal Voltage (V)	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)	1519.4	
Max. Current (A)	1800 @ 10s	
Rated Power (kW)	1000 (Centralized Access 500 + Independent Access 500)	
Max. Apparent Power (kVA)	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)	<750.0	
Dimension (W × H × D mm)	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.