

# STS100/STS300 25-3000 A Static Transfer Switches



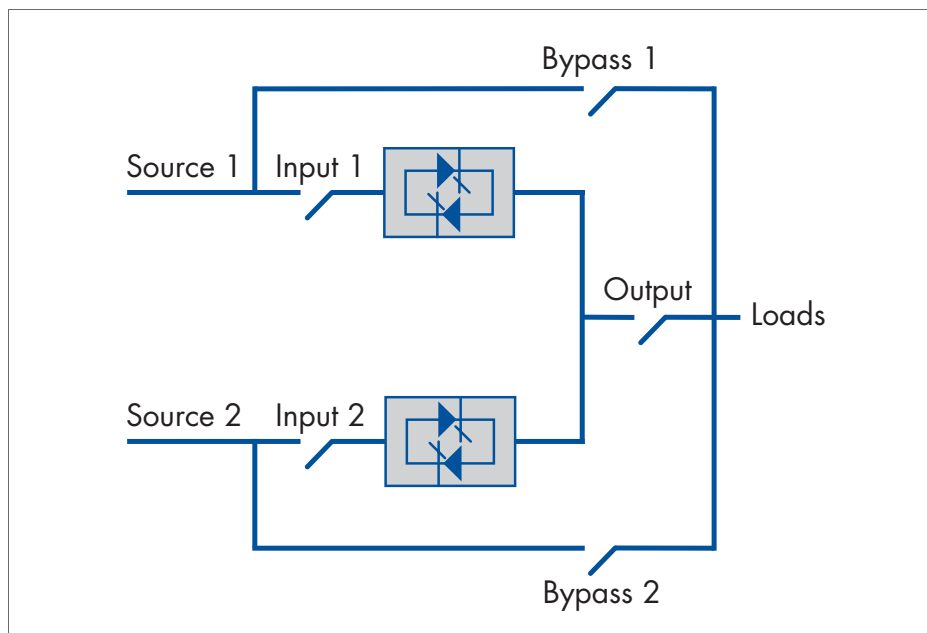
## Features and benefits


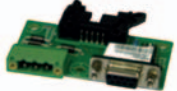
- Continuous monitoring of voltage and frequency and automatic instant (<4ms) transfers for secure power switching without cross connection between sources.
- Short circuit transfer inhibit for robust load protection.
- SCR fault detection and backfeed protection for maximum upstream safety.
- Dual manual bypass for complete source independence during maintenance.
- True oversized neutral (2x In) redundant cooling with monitored fans and redundant (3x3) internal power supply in all system control boards for top product reliability in high availability applications.
- Full front access for easy maintenance.
- Bottom and top cable entry for maximum installation versatility.
- Comprehensive set of communication options for total remote monitoring of equipment operation.
- Fully compliance with all international product standards for maximum quality guarantee.

## Main options

- Isolation transformer.
- Plug-in breakers.
- Output distribution panels.
- Panel builder version.
- Additional SPDT contact relay board.
- 2-pole configuration (STS 100) or 4 pole configuration (STS 300).
- Operation without neutral (STS300).

## STS block diagram



	Description	When do I use it
 INCLUDED	Dry contact relay card	To send UPS status to PLC's, SCADA's or AS400's by voltage free SPDT contacts
	RS485 ModBus-RTU port	To send UPS status to BMS's by RS485 connection and ModBus-RTU protocol. For telemonitoring and teleservice

## STS100 / STS300 technical data

Rating (A)	25	50	80	100	100	250	400	630	800
	<b>STS100</b>				<b>STS300</b>				
Dimensions WxHxD (mm)	820x835x1475 (custom layout on request)				820x835x1475			1220x860x1900	
Weight (kg)	150	190	220	265	265	290	305	615	660

### Input

Connection type	Hardwired 2w				Hardwired 4w				
Nominal voltage	110/115/120/220/230/240/277 Vac 1-phase				208/380/400/415/440/480 Vac 3-phase with neutral				
Voltage tolerance	±10% (up to ±20% on request)								
Frequency and range	50/60 Hz, ±2 Hz (up to ±4 Hz on request)								
Source harmonic voltage content	unlimited (>20% THD transfer time ≤10ms)								
Transfer phase angle	5° ÷ 30°								

### Output

Connection type	Hardwired 2w				Hardwired 4w				
Nominal voltage	110/115/120/220/230/240/277 Vac 1-phase				208/380/400/415/440/480 Vac 3-phase with neutral				
Frequency	50/60 Hz								
Transfer time	≤4 ms								
Transfer mode	Break before make, transfer inhibit on fault								
Load power factor	1 to 0.3								
Maximum crest factor	3:1								
THD current feedback from load	unlimited								
Overload capacity	125% for 30 min, 150% for 10 min, 200% for 30 s, 2000% for 1 cycle, 4000% for ½ cycle								
Rendimento (AC/AC)	>99%								

### Connectivity and function extensions

Front panel	Mimic LED panel and keyboard	Graphical LCD display, mimic LED panel and keyboard
Remote communication	Included: dry contact relay card. Optional: RS232 or RS485 serial port, additional dry contact relay board	Included: Dry contact relay card, RS232 and RS485 serial ports, ModBus-RTU protocol. Optional: additional dry contact relay card
Optional function extensions	2-poles configuration; plug-in circuit breakers, operation without neutral, panel builder execution, output distribution panels, isolation transformer	4-poles configuration, plug-in circuit breakers, operation without neutral, panel builder execution, output distribution panels, isolation transformer

### System

Protection degree	IP 20 (other options)
Colour	RAL 7035 (other options)
Installation layout	Wall, back to back and side by side installation allowed
Accessibility	Front access, bottom and top cable entry

Other ratings on request

## Other features

### Environmental

Operating temperature range	0°C ÷ +40°C
Storage temperature range	-10°C ÷ +70°C
Altitude (AMSL)	< 1000 m without power reduction, > 1000 with reduction of 0.5% per 100 m
Audible noise at 1 m (dBA)	<62

### Standards and certifications

Quality assurance, environment, health and safety	ISO 9001:2008, ISO 14001:2004, BS OHSAS 18001:2007
Safety	IEC/EN 62310-1
EMC	IEC/EN 62310-2
Breakers	IEC/EN 60947-3
Transfer voltage limits	IEEE Standard 446
Protection degree	IEC 60529
Performance	IEC/EN 62310-3
Marking	CE