

STATIC TRANSFER SWITCHES
1- and 3-PHASE

STS

from 16 A ———— to 3000 A



Applications



Network
& Server



Data centre



Industrial
controls & process
automation

Short circuit protection

Ensuring maximum source protection in dual feed applications.

No break seamless transfers

Automatically transferring loads to alternative power sources when the primary power source fails or is not available.

High availability

Thanks to source separation, dual maintenance bypass and redundant critical paths.

1-Phase and 3-Phase static transfer switches for seamless load transfer in dual path power systems. The STS rugged design and high reliability provides supply redundancy and prevents fault propagation.

1-PHASE STATIC TRANSFER SWITCHES

STS 16-32from **16 A** — to **32 A**

STS 16-32 front view



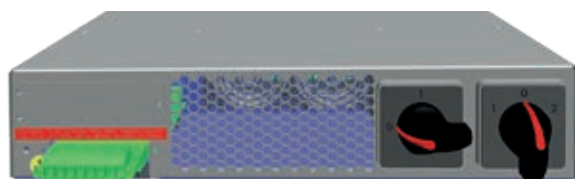
STS 16 rear view



STS 32 rear view

ITS maintenance switch main features

- 16 A and 32 A version.
- 6 x 40 A input terminal board.
- Zero switching time.



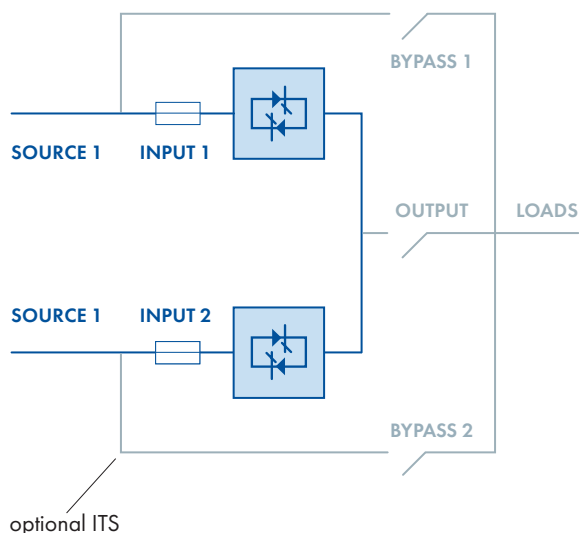
1-phase static transfer switch series designed to offer solutions for the protection of single-phase loads.

Features and benefits

- Dual redundant power supplies to control boards, for increased availability.
- Redundant cooling and fan failure monitoring, for reliable operation.
- Real-time SCR fault sensing, preventing fault propagation.
- High overload capability, for robust electrical design.
- ITS maintenance switch, for hot swap maintainability.
- Compact 19" rack system design, for easy integration.
- LCD/LED display, providing user friendly interface.
- Comprehensive set of communication options for total remote monitoring of equipment operation.

Main options

- 100/110/115/120/127 Vac nominal voltage and NEMA sockets.
- RS485 ModBus interface.
- SNMP interface.
- ITS maintenance switch.

STS block diagram

STS 16 - STS 32 technical data

Model	STS 16	STS 32
Rating (A)	16	32
Dimensions WxDxH (mm)	440x275x88	
Weight (kg)	8	9
Input		
Connection type	Hardwired 5w	
Nominal voltage	200/208/220/230/240 Vac 1-phase	
Voltage tolerance	± 5% (up to ±20%)	
Absolute maximum voltage range	150 Vac to 300 Vac	
Frequency and range	50/60 Hz, ± 5% (up to ±20%)	
Source harmonic voltage content	Unlimited	
Transfer phase angle	5° to 20°	
Output		
Connection type	8 IEC-C 13, hardwired 3w	Hardwired 3w
Nominal voltage	200/208/220/230/240 Vac 1-phase	
Frequency	50/60 Hz	
Transfer time	2 to 6 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 10 min, 150% for 1 min, 700% for 0.6 s	
Efficiency (AC/AC)	99%	
Connectivity and function extensions		
Front panel	Graphical LCD display	
Remote communication	Included: RS-232 ModBus, USB, voltage free relay contacts; Optional: one slot for SNMP adapter or RS-485 ModBus adapter	
System		
Protection degree	IP 20	
Colour	RAL 9005	
Installation layout	Rack mounted	
Accessibility	Front and rear	

Other features

Environmental		
Operating temperature range	-5°C to +40°C	
Storage temperature range	-10°C to +70°C	
Altitude (AMSL)	< 1000 m without power reduction, > 1000 m with reduction of 0.5% per 100 m	
Audible noise at 1 m (dBA)	< 60	
Standards and certifications		
Quality assurance, environment, health and safety	ISO 9001:2015, ISO 14001:2015, BS OHSAS 18001:2007	
Safety	IEC 60950-1	
EMC	EN 55022, EN 55024	
Transfer voltage limit	IEEE Standard 446	
Protection degree	IEC 60529	
Performance	IEC/EN 62310-3	
Marking	CE	

3-PHASE STATIC TRANSFER SWITCHES

STS 300

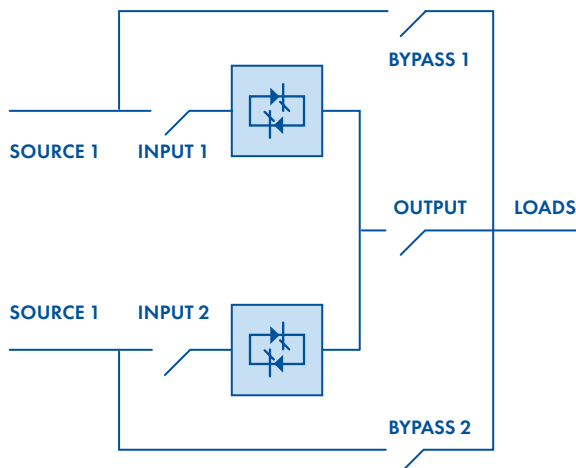
from **100 A** — to **3000 A**

3-phase centralised static transfer switch series designed to offer solutions for the protection of loads even in harsh environment.

Features and benefits

- Continuous monitoring of voltage and frequency and automatic instant (<4 ms) 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.
- Circuit breakers for reliable and safe tripping on all operating conditions.

STS block diagram



Main options

- Isolation transformer.
- Plug-in breakers.
- Output distribution panels.
- Panel builder version.
- Additional SPDT contact relay board.
- 4-pole configuration.
- Operation without neutral.



Dry contact relay card (Included)

Loads are normally fed by the bypass line, during a mains failure the inverter takes over the load without interruption.



RS485 ModBus-RTU port (Included)

To send UPS status to BMS's by RS485 connection and ModBus-RTU protocol. For remote monitoring and remote service

STS 300 technical data

Rating (A)*	100	250	400	630	800	1000	1250
Dimensions WxDxH (mm)**	820x835x1475			1220x860x1900			2000x1000x2100
Weight (kg)**	265	290	305	615	660	1000	1450
Input							
Connection type	Hardwired 4w						
Nominal voltage	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 (if THD>20% transfer time ≤10ms)						
Transfer phase angle	5° to 30°						
Output							
Connection type	Hardwired 4w						
Nominal voltage	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						
Efficiency (AC/AC)	>99%						
Connectivity and function extensions							
Front panel	Graphical LCD display, mimic LED panel and keyboard						
Remote communication	Included: dry contact relay card, RS232 and RS485 serial ports, ModBus-RTU protocol. Optional: additional dry contact relay card						
Optional function extensions	4-pole 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 9005 (other options)						
Installation layout	Wall, back to back and side by side installation allowed						
Accessibility	Front access, bottom and top cable entry						

*rating up to 3000 A on request ** 3-pole version

Other features

Environmental	
Operating temperature range	0°C to +40°C
Storage temperature range	-10°C to +70°C
Altitude (AMSL)	< 1000 m without power reduction, > 1000 m 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 9001:2015, ISO 14001:2015, BS OHSAS 18001:2007
Safety	IEC/EN 62310-1
EMC	IEC/EN 62310-2
Breakers	IEC/EN60947-3
Transfer voltage limits	IEEE Standard 446
Protection degree	IEC 60529
Performance	IEC/EN 62310-3
Marking	CE