STS 300

Static Transfer Switches

3-Ph from 100 to 3000 A

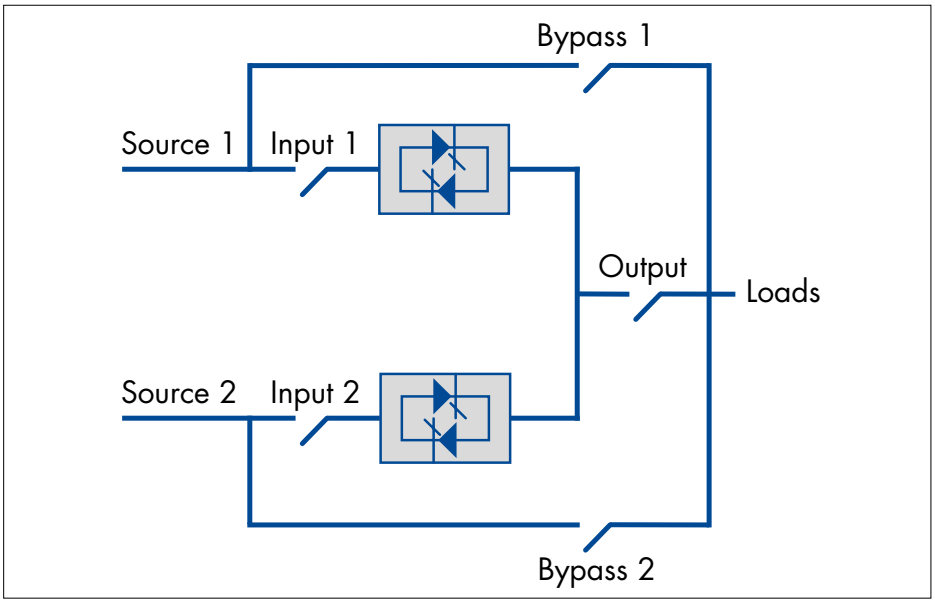
Features and benefits

- 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.

Main options

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

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
 Included	RS485 ModBus-RTU port	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 1m (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

Borri S.p.A. Via 8 Marzo, 2 · 52010 Bibbiena (AR) Italy · Tel. +39 0575 5351 · Fax +39 0575 561811 · info@borri.it · www.borri.it