

# Static Transfer Switch STS SERIES



Hannibal microprocessor-controlled static transfer switch designed to automatically transfer electrical power from a primary source to a secondary source without interruption, constantly monitors the sources connected to the inputs; checks whether they remain within the current and frequency limits and decides if they are synchronized with each other. If the prioritized source is within the determined limits, the critical load is transferred over to the prioritized source. If the prioritized source is not within the determined limits, the load is then transferred to the other source which is within the determined limits.

# Static Transfer Switch **STS Series**

## General specifications

- **Instantaneous Switching:** STS performs rapid switching operations, typically within milliseconds, ensuring continuous power supply to critical loads.
- **No Moving Parts:** Unlike mechanical switches, STS operates without moving parts, reducing wear and tear and increasing reliability.
- **Dual Power Sources:** It monitors two independent AC power sources and switches to the backup source seamlessly if the primary source fails.
- **High Availability:** Ensures high availability of power for sensitive applications such as data centers, telecommunications, and industrial processes.
- **Protection:** Protects equipment from power disturbances and interruptions.

## Electrical specifications

- Microprocessor Based Control.
- Thyristor-based Static Transfer Switch.
- Suitable with Synchronous and Asynchronous Transfer.
- Selectable Asynchronous Transfer Enable \ Disable.
- Synchronous Transfer Time: < 5 msec. (  $\frac{1}{4}$  cycle at 50 Hz).
- Asynchronous Transfer Time: < 11 msec.
- Thermal Fuse Protection at Source Inputs.
- Overvoltage Protection at Source Inputs.
- 4 Dry Contacts.
- 2×16 LCD Front Panel.
- Selectable Source Priority via Front Panel.
- Suitable with 3rd Input Source (Optional).



# Static Transfer Switch **STS Series**

## Input Specification- Single Phase

1 PHASE Technical Specification	
Voltage (Ph-Ph)	110/127/208/220/230/240/265VAC 1Ph + N + PE
Voltage Range	± 20% (Transfer when out of range)
Frequency	50/60Hz
Frequency Range	45-65Hz (Transfer when out of range, adjustable)
Efficiency	>99%
Transfer Type	Break before make
Transfer Options	Automatic / Manual / Remote
Transfer Time	<4ms (Sync) & ~10ms (Unsync)
Switching Topology	1 Pole (w/o neutral breaking) or 2 Pole (w neutral Breaking)

## Mechanical Specification- Single Phase

1 PHASE Technical Specification						
Nominal Current	16A	32A	50A	63A	100A	150A
Cooling			Natural Cooling			
MECHANICAL						
Net Weight (kg)	3	6	6	8	Refer to Hannibal	
Dimensions (mm) WxDxH	19' / 1U		19', 2U	500*450*1000mm		

## Input Specification- Three Phase

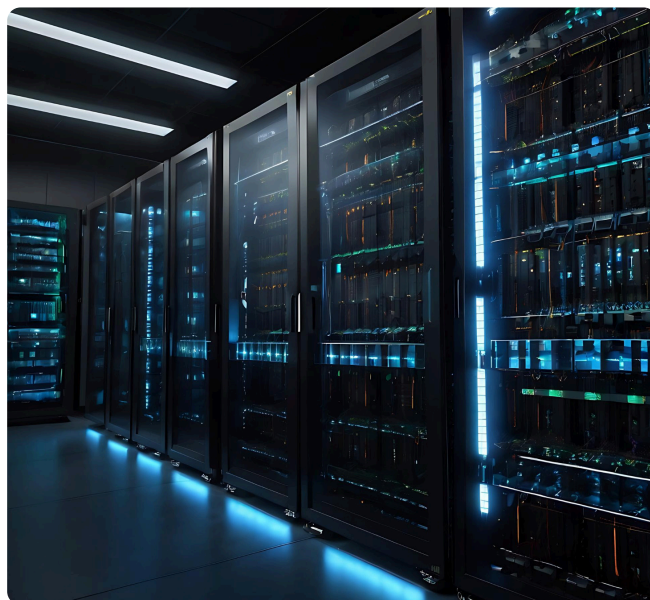
3 PHASE Technical Specification	
Voltage (Ph-Ph)	200/227/380/400/415/440/460/600VAC 3Ph + N + PE
Voltage Range	± 15% (Transfer when out of range)
Frequency	50/60Hz
Frequency Range	45-65Hz (Transfer when out of range, adjustable)
Efficiency	>99%
Transfer Type	Break before make
Transfer Options	Automatic / Manual / Remote
Transfer Time	<4ms (Sync) & ~10ms (Unsync)
Switching Topology	3 Pole (w/o neutral breaking) or 4 Pole (w neutral Breaking)

## Mechanical Specification- Three Phase

3 PHASE Technical Specification									
Nominal Current	50A	63A	100A	150A	200A	300A	400A	600A	800A
Cooling	Fan Forced (Dual Redundant), Natural Cooling (Optional)								
MECHANICAL									
Net Weight (kg)	Advise to Hannibal								
Dimensions (mm) WxDxH	500*450*1000 mm			600*600*1300mm		750*700*1600mm		1000/800*800*2100mm	

## General Specification

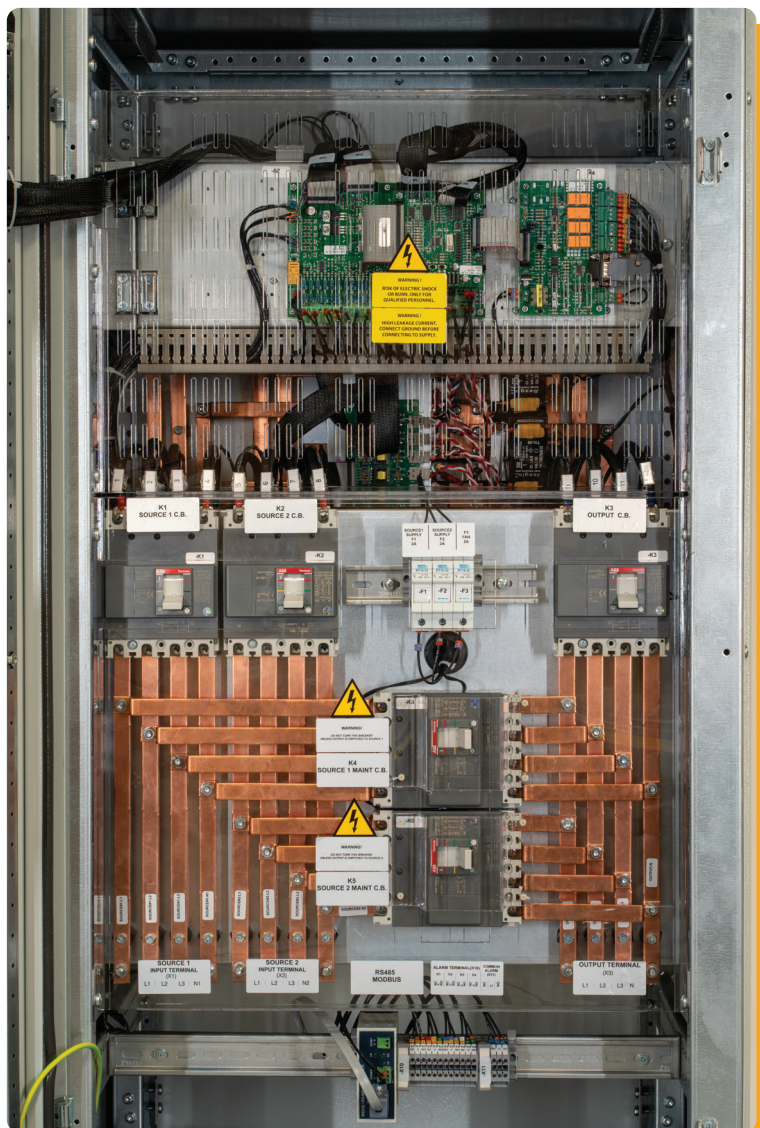
General Specifications	
Operational Temperature	0°C - 50°C
Storage Temperature	-10°C - 70°C
Relative Humidity	<90% (non-condensing)
Ingress Protection	IP20, IP21 (Standard), up to IP66 (Optional)
Standards	EN62310-1, EN62310-2, EN62310-3
Crest Factor	3:1
Overload	100-110% continuous / 100-125% 10mins / 125%-150% 1min / 150-200% 10sec / >200% 250msec
Protections	Overload, Short circuit, Over Temperature, Backfeed, SCR Fault Alarm, Unsync protection, Bypass protection (Interlock)
Communication	RS232, Dry Contact (Standard) - RS485, TCP/IP (Optional), SNMP (Optional)



# Static Transfer Switch STS Series

## Options —

- Fusible Surge Protection.
- Maintenance Bypass Switch protection.
- Redundant Fans.
- Natural Cooling + Smart Fan System.
- Cabinet color.
- Cable Entry(Top/side/bottom/rear).
- Ingress Protection: up to IP66
- Touch Panel with Mimic Diagram.
- Auxiliary Trip Contact
- Earth Fault Protection (adjustable).
- Phase Voltage/Sequence protection.
- Operation Information.
- Monitoring and Shutdown Software.
- RS232 Serial and RS485 Ports.
- Modbus RTU (Optional).
- 2 Communication Slots.
- Remote Emergency Power Off (Optional).
- Remote Display Panel (Optional).
- Dry Contact (Optional).
- SNMP (Optional).



Bypass input



AC input



Static Transfer Switch

load