

Static Transfer Switch MODEL A

i - STS

The Model A i-STS is a 1 or 2 pole, single phase 6RU , rack mount static transfer switch. The modular system allows for three separate modules to operate in sequence to provide a secure three phase supply. Designed as a solution to the requirements of ultra sensitive electronic equipment, the Model A employs specialized current interrupting methods to transfer critical loads of up to 125A.



The Model A provides uninterrupted power to your critical equipment by automatically switching between two independent power sources upon detection of a supply source problem. To avoid the dangers of paralleling power sources, all switching is break-before-make and is completed in less than 1 millisecond, ensuring no disruption to the operation of your equipment. Our current interrupting topology ensures that your critical equipment is not subjected to deteriorating AC voltage waveforms as would be the case with the traditional thyristor implementations, (where up to 5 msec of voltage and current deterioration could affect sensitive loads). These units are extra rugged and contain high fault capacity solid state semiconductors and IGBT's for installation into high fault current environments.

The Range:

Rated typically from 20 to 125 Amperes in either single or three phase, 2 or 3 or 4 pole configurations.

Simplicity Is The Key:

At Static Power, we believe in keeping things simple while maintaining the full functionality of our equipment. The i-STS can be easily transferred from one supply to the other by using the TRANSFER pushbutton, while the LCD has a simplified control hierarchy which uses a down arrow and right arrow pushbuttons. Setting of preferred supplies as well as a controls override function is performed through a simple slide switch at the rear of the STS. Preferred source can also be set via the LCD.

Communication:

The standard Model A STS is fitted with seven voltage-free contacts and three remote inputs. If you require a more advanced monitoring solution, we also offer monitoring through Modbus as well as a web browser interface and SNMP to monitor and if needed, control the STS. Setting of all of the STS parameters is performed via the LCD and can also be performed using the web browser interface.

Maximum Reliability:

The Model A Static Transfer Switch features a high reliability, low maintenance, robust design with redundant detection circuitry and power supplies. The units use DSP high speed digital sampling for stable, reliable and predictable operation. We are so confident of the reliability of our equipment, we offer the industry's longest warranty period.



- Protection Circuit Breakers are positioned at rear of STS.
- 3 position preferred source selector on rear as 1, 0 or 2
- 3 position maintenance control override on rear as 1 – None -2
- Access to performance threshold settings available via – LCD
- Internal parallel configuration dip switches required to set gang modes, (e.g. parallel, redundant or multi-phase modes).
- Special Gang mode RJ45 interconnecting cable also required for gang modes, (e.g. parallel, redundant or multi-phase modes).

<i>i</i> - STS Features	Benefits
Low noise Fans (controlled)	Low noise and maximum life and reliability
Break Before Make Transfers (<1 msec break times)	Prevent paralleling of input sources
Large Overload and Fault Capacity (No fuses)	Suitable for installations with fault capacity up to 35 & 50kA
Guaranteed Load Fault Transfer Lock-out	Will not transfer faults to alternative source
Synchronous and Non-Synchronous Transfers Allowed	Transfer at safely even if sources are asynchronous
SCR / IGBT Open and Short Circuit Protection	No overlapping or loss of supply due to SCR or control failures
LAN Web Server Option Built Into Hardware	Monitor and control STS through Web Browser software
Redundant Controls and Triple Redundant Power Supplies	More secure higher MTBF for your equipment/Redundant power monitoring

Specifications

These specifications refer to a typical Single Phase Model A Static Transfer Switch Module

Rating	20 - 125 Amperes RMS
Voltage Rating	415/240 V \pm 20%
Permissible Voltage Distortion	20% THDV
Frequency	50 Hz \pm 5%
Type	Single Phase (2,-pole, 3-phase, 3-pole or 4-pole, require additional modules)
Efficiency	98 % (1P)
Transfer Type	Current interrupting (using IGBTs)
Detection Digital	< 2 msec
dV/dt	>1000 V/ μ sec
MTBF	> 800,000 Hrs
Fault rating	2 kA (fault current limited)
Fault Current Setting	300% peak (transfer lock-out)
Protection	Source circuit breakers at rear
Overload Capacity	Up to 120% for 30 seconds 500% for 100 msec 1000% Amperes for 10 msec
Remote I/O	7 x Voltage free contacts (50 V DC, 1 Ampere, N/C) + 3 inputs
LAN Browser	Optional
Modbus TCP	Optional
Modbus RTU (RS232)	Optional
SNMP	Optional
Operating Temperature	0 - 40°C
Cooling Fan	forced
Noise	< 61 dB(A) typically
Colour	Black (Powder Coated)
Compliance	AS3100 & AS/NZ/IEC 62310-1 (for STSs) AS/NZ(IEC) 62310-1 & 2
Warranty	24 months

Subject to change without notice.

Static Transfer Switches

i - STS Manufacturing is a subsidiary of
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