

## Static Transfer Switch MODEL B2

This three phase, four pole Static Transfer Switch is a redesigned implementation of our mature and proven model B1, made possible using new manufacturing SMT techniques, (Surface Mount Technologies) and new SCR/ Thyristor packaging technology.

Fully digital, these units employ robust SCR/Thyristor technology to provide a more reliable and robust Static Transfer Switch. The Model B2 consists of a two part design comprising a segregated fixed termination module incorporating a 4-pole single operation, 3 position Maintenance Bypass Switch and a removable, hot-socket power module.

The Model B2 i-STS point-of-distribution is a true Static Transfer Switch is rated up to 63 Amperes per phase.



The Model B2 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 (except neutral which is overlapping) and is transparent to the load. Even under worst case conditions the transfer is completed in less than 5 milliseconds, ensuring no disruption to the operation of your equipment. These units are extra rugged and contain high fault capacity solid state thyristors and are suitable and safe for installations with fault capacities up to 20kA.

### The Range:

Rated typically from 10 to 63 Amperes in either 3 phase, 3 or 4 pole configurations complete with integrated maintenance bypass and power isolation facilities.

Spring cage terminals at the rear of the fixed portion (incorporating the maintenance bypass switch) enable connection of input and output cables of up to 16mm<sup>2</sup>, providing flexible connection to your PDU or load distribution infrastructure.

### Simplicity Is The Key:

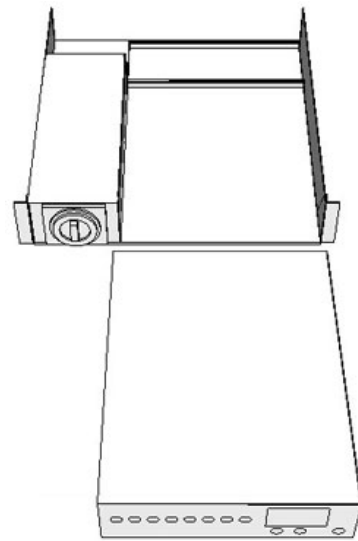
Featuring a back lit graphic LCD display the control panel uses a clean easy to operate simplified control hierarchy user interface to provide clear status identification. View variables, real-time event list (100) and incorporates a password access to the setting of all operating and detection levels. The i-STS can be easily transferred from one supply to the other by using the TRANSFER pushbutton and incorporates a single operation Preferred Source selection.

### Communication:

The standard Model B2 STS is fitted with seven discrete voltage-free contacts and three remote inputs. If you require a more advanced HLI monitoring solution, Modbus - as well as a web browser interface and SNMP - are incorporated 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 B2 Static Transfer Switch features a high reliability, low maintenance, robust design with redundant detection circuitry and power supplies. The units use Digital Signal Processing and high speed digital sampling for stable, reliable and predictable operation. A long life, monitored, real mounted modular fan assembly provides redundant field exchangeable cooling module.



Shows removable power module concept

We are so confident of the reliability of our equipment, we offer the industry's longest warranty period.

i- STS B2 Features	Benefits
Industry's Smallest Size Static Transfer Switch	Bring Uninterrupted 3 phase power to your rack
Fully Redundant Low noise Fans	Low noise and maximum reliability
Break Before Make Transfers	Prevent paralleling of input sources
Large Overload and Fault Capacity	Suitable for installations with fault capacity up to 20kA
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 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 Supply	More secure higher MTBF for your equipment/Redundant power monitoring

# Specifications

These specifications refer to a typical three phase Model B2 Static Transfer Switch

Rating	10 - 63 Amperes RMS
Voltage Rating	400/200 (230/115)V ± 20% (264 -85 Ph-N)
Permissible Voltage Distortion	20% THDV
Frequency	50 / 60 Hz ± 10%
Type	3 + N (3-phase, 4-pole, or 3 phase, 3-pole)
Efficiency	98%
Transfer Type	Thyristor (break-before-make, no source overlap, zero current)
Detection Digital	< 1 msec
dV/dt	>1000 V/μsec
MTBF	> 800,000 Hrs
Device Ratings	120 Amperes RMS, 1600 Volts, 2 kA 10msec
Fault rating	20 kA
Fault Current Setting	300% peak (transfer lock-out)
Protection	Internal 100 Ampere fuses
Overload Capacity	Up to 120% for 30 seconds 100A for 0.5 second 400A Amperes for 100 msec 1500A Amperes for 10 msec
Maintenance Bypass	YES, 3-position CAM Operated, 4-Pole, overlapping
Remote I/O	7 x Voltage free contacts (50 V DC, 1 Ampere, N/C)
LAN Browser	Included
Modbus TCP	Included
Modbus RTU (RS232)	Included
SNMP	Included
Operating Temperature	0 – 40°C
Cooling Fan	forced, redundant (user replaceable fan module), 5 year life
Noise	< 63 dB(A) typically
Physical Size	2RU (88mm) high x 19" wide x 400mm deep
Cable Entry	Rear Spring Cage terminals (Up to 16mm <sup>2</sup> )
IP Rating	IP31
Colour	Black
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  
**STATIC POWER PTY. LTD.**  
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