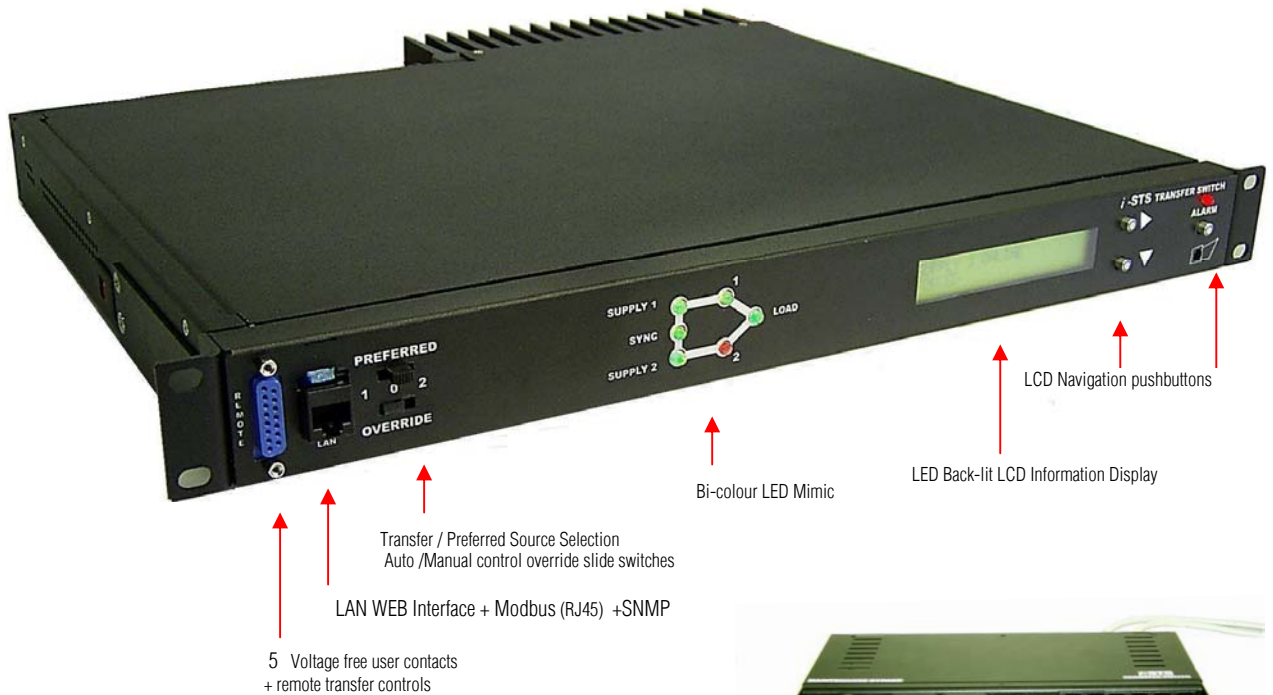


# Static Transfer Switch MODEL B1s

i-STS

The Model B1 is the worlds smallest and fully functioned rack mounted Static Transfer Switch (STS) which features the reliability and high fault capacity of solid state thyristor switching as opposed to relay based Transfer Switches that are usually offered in this physical size.

All B1s' come with discrete remote **Voltage free Contacts** and remote **Controls Inputs, Modbus** and **LAN WEB Server** and **SNMP** built in. Combine this with **bi-colour LED mimic** to provide instant recognition of STS state and a **backlit LCD information display** to provide real-time variables, status and event history.



The **Model B1 i-STS** provides uninterrupted power to your critical equipment by automatically switching between two independent power sources upon detection of a problem. To avoid the dangers of paralleling power sources, all switching is break-before-make and is completed transparently to your critical load, ensuring no disruption to the operation of your equipment.

Suitable for floating active phase to phase and phase to neutral power distribution systems to provide secure synchronous or asynchronous power transitions.

### The Range:

Model B1 i-STS 19 inch Rack Mount Static Transfer Switches are available in 10, 15, 20, 25 and 32 Amperes ratings with natural cooling, (The 40, 50 ampere rated models have redundant fan assisted cooling). All units feature **two pole**, high speed solid state thyristor switching.

The bi-colour LED mimic provides instant recognition of STS state the backlit LCD provides useful real-time information such as supply variables, power quality, event log, utilization history and essential set-up information for the time, Modbus & LAN.

### Simplicity Is The Key:

The i-STS can be easily transferred from one supply to the other by using the "PREFERRED" source selector switch while the optional LCD has a simplified control hierarchy which is operated using the down and right arrow pushbuttons. A Manual /Auto function is provided using the OVERRIDE switch.

### Maximum Reliability:

The Model B1 i-STS features a high reliability, surface mount technology, low maintenance, robust design with redundant circuitry. 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.



(Optional Maintenance Bypass / connection facility, Size 1RU (19 Inch) X 280 deep)

An optional, separate rear mounted /fitting single operation make-before-break (overlapping contact) Maintenance Bypass / connection facility can be provided to allow removal of a faulty STS without loss of power to the critical load all without taking up additional rack space. Features front or rear rack mounting with Maintenance Bypass Switch / cables access accessible from front and / or rear.

### Communication:

The Model B1 i-STS is fitted with five voltage-free contacts and two remote inputs. For more advanced monitoring, we also include MODBUS and a web browser interface to monitor and if needed, control the STS. **Setting of all STS parameters is achieved using the web browser interface.**

### Connections

Power to your IT equipment is via 8 IEC C13 sockets. The input sources are supplied via a 2 meter umbilical power cord with either IEC or Aust GPO industrial locking ring plugs to your specification.

Combinations of outlets as umbilical power cord, other IEC309, IEC19/20 or Aust GPO are available.



Natural air cooling for max. reliability

8 off IEC C13 or C19/C20 or cord

Incoming Source leads  
Can be supplied with plug of choice.

# Static Transfer Switch MODEL B1s



i-STS Features	Benefits
Industry's Smallest Size Static Transfer Switch	Get the performance and robustness of solid state power devices instead of electromechanical relays
Natural Air Cooled (no fans, except 40 & 50 Ampere units)	Low noise and maximum reliability
Break Before Make Transfers	Prevent paralleling of input sources (Break/ transition time measured in microseconds)
Large Overload and Fault Capacity (contains fuses)	Suitable for installations with fault capacity up to 20kA (Every Source is fused (4 x 100 Ampere Fuses))
Guaranteed Load Fault Transfer Lock-out	Will not transfer faults to alternative source
Synchronous and Non-Synchronous Transfers Allowed	Transfer 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 Built Into Hardware	Monitor and control STS through Web Browser or Modbus TCP or 5 x discrete relay contacts and 3 x inputs
Redundant Controls and Triple Redundant Power Supply	More secure higher MTBF for your equipment / Redundant power monitoring
LED & LCD Information Display & Real Time Event List	Fully featured, know your loading, diagnostics made easy, front panel set-up
Redundancy and ruggedness built in for maximum reliability	Triple redundant power supplies, redundant sensing circuits, large 100 Ampere devices, Generous overload capacity

These specifications refer to a typical single phase (Ph-Ph), 10,15, 20,25 or 32 Ampere Model B1 Static Transfer Switch

## Specifications

Rating	10/15/20/25/32 (40 & 50) Amperes RMS
Voltage Rating	110/220/230/240 V ± 20%
Permissible Voltage Distortion	20% THDV
Frequency	50 Hz ± 5% (60Hz Option)
Type	1 Phase + N ( <b>true 2-pole, 4 x AC Static Switches</b> )
Efficiency	99.2 %
IEC C13 Rating	10 Amps max per outlet 15 Amperes max per block (2 blocks)
Transfer Type	Thyristor (break-before-make, no source overlap, zero current)
Detection	Digital (< 1 msec)
Break time	Normal; (< ½ msec), Max < ¼ cycle (5msec).
dV/dt	1000 V/µsec
MTBF	> 800,000 Hrs
Device Ratings	>100 Amperes RMS, 1600 Volts, 1.5 kA 10msec
Fault rating	20 kA
Fault Current Setting	150 Amperes peak (transfer lock-out)
Protection	Internal 100 Ampere fuses
Overload Capacity	Up to 63 Amperes for 30 seconds 100 Amperes for 0.5 second 400 Amperes for 100 msec 1500 Amperes for 10 msec
Remote I/O	5 x Voltage free contacts (50 V DC, 1 Ampere N/C) +,2 Transfer Controls
LAN Browser	Standard
SNMP	Optional
Modbus TCP	Optional
Modbus RTU (RS232)	Standard
Operating Temperature	0 - 40 °C
Cooling	Natural (to 32 Amperes)
Physical Size	<b>1U (44mm) x 19 Inch x 385 mm deep</b>
Weight	8.5 kg (typical)
Colour	Black Powder Coat / Black front panel
Compliance	AS3100 & AS/NZ/IEC 62310-1 (for STSs)
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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