

Static Transfer Switch MODEL H

The **Model H** three phase Static Transfer Switch (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 ensures no disruption to the operation of your connected equipment.

With limited install infrastructure this unit offers a small footprint and industries smallest physical size. For Free Standing mounting. Only 300 mm depth (Size 600 wide x 1420 high).

These units are extra rugged and contain generously overrated, high fault capacity solid state thyristors for installation into distribution systems with up to 16 kA short circuit capability. These unit do not contain fuses or circuit breakers and rely on up stream and down stream discrimination.

The Range:

Rated from **40 to 160 Amperes** in either 3 phase, 3 or 4 pole configurations complete with maintenance bypass facility.

All units have an integral Maintenance Bypass facility incorporating electrically and mechanically interlocked isolators for safe operation. In addition to the maintenance bypass the STS power section and electronics can be isolated for maintenance whilst supplying the critical load from the maintenance bypass supply.

No fans for units up to 100 Amperes. Fully redundant low noise (<60dB(A)) for units with ratings greater than 100 Amperes. For larger capacities the units incorporate redundant fans redundant fail safe fan controls.

Maximum Reliability:

The Model H *i*-STS features a high reliability, low maintenance, robust design with redundant circuitry. The units use DSP high speed digital sampling for stable, reliable and predictable operation. Through the use of digital circuitry and redundant and independent controls MTBFs of 800,000 Hrs are attainable. We are so confident of the reliability of our equipment, we offer the industry's longest warranty period.

Communication:

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

Simplicity Is The Key:

Bi-colour LED mimic and backlit graphic LCD panel to provide useful realtime information such all variables that are displayed on a single screen, power quality, 100 deep event log and utilisation history.



The *i*-STS can be easily transferred from one supply to the other by using the 'TRANSFER' pushbutton while the LCD has an uncomplicated easy to read and interpret control hierarchy which is operated using the down and right arrow pushbuttons.

Setting of all STS parameters is achieved via the LCD or using the web browser interface, (password protected). Dual setpoints for Manual and Auto Mode from User Control Panel. User selectable preferred source and a controls override function, 7 discrete volt free contacts for remote monitoring and 3 control inputs.

<i>i</i> -STS Features	Benefits
Industry's Smallest Size Static Transfer Switch	Ideal for corridors or adjacent to existing distribution boards.
No fans to 100 Amperes then fully Redundant Low noise	Low noise and maximum reliability
Break Before Make Transfers	Prevent paralleling of input sources
Large Overload and Fault Capacity (contains fuses)	Suitable for installations with fault capacity up to 16kA
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 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

Rating	40/63/100/125/160 Amperes RMS
Voltage Rating	415/240 V \pm 20% (208/120 and 380/220 by application)
Permissible Voltage Distortion	20% THDV
Frequency	50 Hz \pm 5%
Type	3 + N (3-phase, 4-pole, or 3 phase, 3-pole)
Efficiency	99.7 %
Transfer Type	Thyristor (break-before-make, no source overlap, zero current)
Detection	Digital (< 1 msec)
dV/dt	>1000 V/ μ sec
MTBF	> 800,000 Hrs
Device Ratings	500 Amperes RMS, 1600 Volts,
Fault rating	16 kA 10msec, > 1,000,000 A ² Sec
Fault Current Setting	300% Amperes peak (transfer lock-out)
Protection	External
Overload Capacity	Up to 120% for 30 seconds 500% Amperes for 0.5 second 1500 Amperes for 100 msec (1000%) 16,000 Amperes for 10 msec
Remote I/O	7 x Voltage free contacts (50 V DC, 1 Ampere N/C)
LAN Browser	Optional
Modbus TCP	Optional
Modbus RTU (RS232)	Optional
Operating Temperature	0 - 40 °C
Cooling	Fan forced, redundant for units > 100 Amperes
Noise	< 60 dB(A) typically
Physical Size	1420mm high x 600mm wide x 300mm deep
Cable Entry	Bottom
Maintenance Access	Front Only
Weight	75 kg (typical)
Colour	RAL7035 (off white)
Compliance	AS3100 & AS/NZ/IEC 62310-1 (for STSs)
Warranty	24 months

Subject to change without notice.

Static Transfer Switches

⚡ STS Manufacturing is a subsidiary of
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