

## STATIC TRANSFER SWITCH (STS)

Specification										
Model	STS 50	STS 100	STS 120	STS 150	STS 200	STS 300	STS 400	STS 500	STS 800	
Nominal Current	50	100	120	150	200	300	400	500	800	
Input										
Norminal Voltage	380 / 400 / 415 Vac 3 Phase with Neutral 220 / 230 / 240 Vac single Phase with Neutral Special voltage can be customized									
Input Voltage Tolerance	± 20% (Selectable)									
Norminal Frequency	50/60Hz									
Input Frequency Tolerance	± 2.5Hz									
Operating Features										
Operation Topology	Breaker Before Make(No Source Overlapping)									
Available Transfer Modes	Automatic/Manual									
Transfer Time for Source Failure	< 4msec(S1/S2 Synchronised) 10msec(S1/S2 not Synchronised)									
Environmental										
Efficiency at Full Load(%)	> 99									
Noise Level at 1M From Front(From 0 to Full Load)-(dBA)	52					55				
Storage Temperature Range	-10° C to +50° C									
Ambient Temperature	0° C to +40° C									
Relative Humidity	90% Non-Condensing									
Max. Installation Height	1000M at Rated Power (-1% Power for Every 100M above 1000M) - Max 4000M									
Standard Compatibility	EN62310-1(Safty), EN62310-2 (Electromagnetic Compatibility)									
Dimension(H*W*D)(mm)	1600*550*800					1600*1100*800				
Weight(kgs), based~standard 380/400/415V	180	190	200	230	250	320	340	360	420	
Colour	Cool Grey. Customized color is availavle									
Index of Protection	IP20									

\* Product specifications are subject to change without further notice

\* Special spec can be customized

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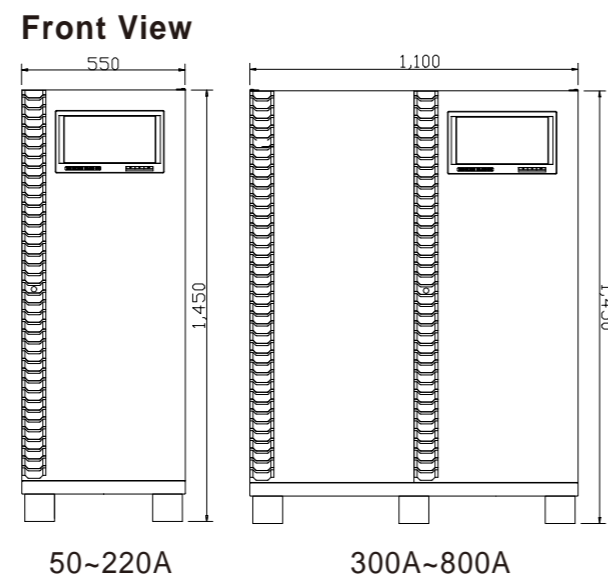
## STATIC TRANSFER SWITCH (STS)

Our STS is an industrial electrical device that uses superfast static switches (SCRs) to transfer instantaneously between two power sources (like AC utility, backup generators or other emergency power sources). One power source will be the default source while the other will be standby. In case of a problem with the default power source, the STS, with high reliability and fast-acting capacity, will switch to standby power source and vice versa so that your load will not experience any power interruptions.

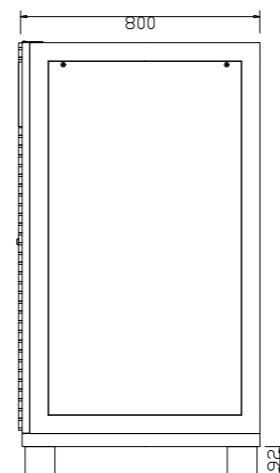
Furthermore, the STS also can be specially customized for 3 phase, single phase, and various voltage input from AC power sources.

### Features:

- 1 · High efficiency >99%
- 2 · Accept harsh environment
- 3 · Custom design up to 800A
- 4 · Fast repair: plug & play power module
- 5 · Protect against incorrect breaker turn on
- 6 · Fast transfer(typical): 1.5ms(S1/S2 synchronized)
- 7 · Drastically increase in output availability
- 8 · Easy start-up : use switch button
- 9 · Input phase difference acceptable
- 10 · Single/three phase selectable
- 11 · Voltage range +/-5,10,15,20% selectable.
- 12 · Frequency range +/-0.5,1.0,1.5,2.0,2.5 Hz selectable
- 13 · Sensitivity lo/med/hi selectable
- 14 · Break before make transfer sequence
- 15 · Manual/automatic transfer selectable
- 16 · Manual/automatic return selectable
- 17 · Manual bypass use breakers (with inter-lock)

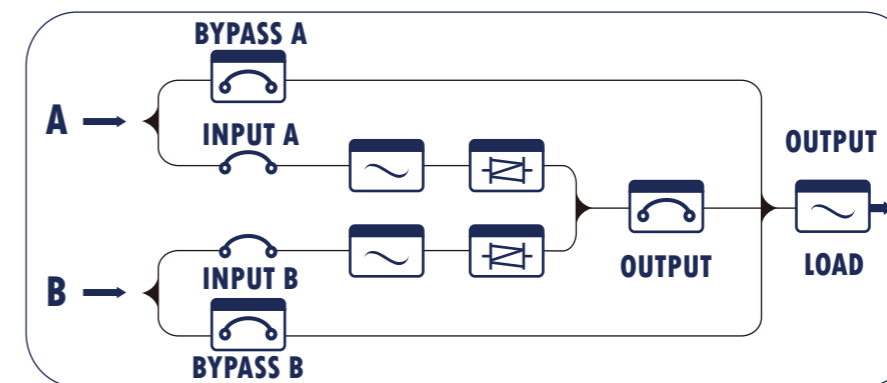


### Side View



### Operation Description:

As shown in the topology drawing below, for both (A) and (B) input AC sources our STS system is mainly composed of INPUT/BYPASS breakers, input filters and protection fuses, static switch and control modules, and the OUTPUT breaker to the load.



Under normal operating conditions, the INPUT (A) breaker, INPUT (B) breaker and OUTPUT breaker should be closed (turned ON), and the BYPASS (A) breaker and BYPASS (B) breaker should be opened (turned OFF). When both AC power sources are operating normally within the preset voltage and frequency range, the static switch for the default power source would supply power to the load.

In case the default AC powers has problems such as power failure or is out of the preset voltage/frequency range, the STS can detect the problem in a fraction of a millisecond. If this happens at the default AC source while the standby source is normal, the default static switch will switch off and the standby static switch will switch on simultaneously to supply the load from the standby source.

Therefore, the load will not be interrupted. Once the default source recovers, the load will transfer back to the default AC source after 3~4 seconds without interruption.