

Alphapower

The STS is a solid-state, 3-phase, 4-pole switch which connects critical loads to 1 of 2 separate power sources; 1 source is primary or priority and the other is an alternative power source to ensure power continuity.

The STS 3 is fitted with 2 internal maintenance bypass switches enabling load transfer to supply without interruption to load. Key-operating locks ensure 2 bypass switches cannot be closed simultaneously so as to avoid connecting both sources to each other. The complete bypass isolation allows for maintenance of all serviceable components without interruption to the load. Control logic ensures in the case of an accidental bypass closure on the passive line, the load is automatically transferred to the line.

This switch is designed to switch between different AC input lines according to priority criteria and the technical characteristics of the input voltages. If lines are synchronised, the transfer time from one power source to the other is less than 4ms.



Some key features include:

- Continuous monitoring of sources
- Automatic and instantaneous transfer
- Manual transfer ability
- Internal power distribution redundancy
- Dual maintenance manual bypass
- Enhanced monitoring and diagnostics
- Compact size
- True over-sized neutral (2In)
- Short circuit transfer inhibit
- Programmable alarm relay contacts
- Front access to all power components
- Bottom of top cable entry
- Redundant cooling with monitored fans

Product Specifications

	Model	STS 3
Source	Nominal Voltage	380V _{AC} /400V _{AC} /415V _{AC} 3-Phase
	Voltage Range	± 15% (± 20%, ± 15%, ± 10%, ± 5% - selectable)
	Frequency	50/60Hz – selectable
	Harmonic Voltage Content	Unlimited (> 20% THD, transfer time ≤ 10ms)
Load	Power Factor	1 to 0.3 lag & lead
	Permitted Unbalanced Load	100%
	THD Current Feedback	Unlimited
	Crest Factor	3:1
	AC/AC Efficiency	≥ 99% - full load, 0.8pf
	Overload Capacity	125% for 10 Minutes / 200% for 5 Minutes 500% for 30 Cycles 1,000% for 1 Cycle
Operation	Transfer Topology	Break before make (no source overlap)
	Transfer Time	≤ 5ms
	Transfer Phase Angle	± 7° (± 7°, ± 10°, ± 15° – selectable)
	Circuit Breakers	YES
Physical	Connections	3P + N + G (hardwired) 3P + G (hardwired) - optional
	True Neutral Size	2 In
	Cable Entry	Top or bottom
	Weight % Size	Please see table on following page
Standards	Protection	IP21
	EMC Compatibility	IEC EN 61000-6-2
		IEC EN 61000-6-4
	Safety	EN 50178
Marking	CE	
Environment	Cooling	Forced, redundant
	Storage Temperature	-15 – 70°C (5 – 158°F)
	Ambient Temperature	0 – 40°C (32 – 104°F)
	Relative Humidity	0 – 90% non-condensing
	Max. Altitude	1,000m

Model	Current	Access	Dimensions W x D x H	Weight Kg (lbs.)	Audible Noise @ 1m
STS 4P - 0100	100A	Front	600 x 650 x 1420 mm 23.6" x 25.6" x 55.9"	190 (419)	< 60dBA
STS 4P - 0160	160A	Front	600 x 650 x 1420 mm 23.6" x 25.6" x 55.9"	210 (463)	< 60 dBA
STS 4P - 0250	250A	Front	800 x 800 x 1800 mm 31.5" x 31.5" x 70.9"	270 (595)	< 60 dBA
STS 4P - 0400	400A	Front	800 x 800 x 1800 mm 31.5" x 31.5" x 70.9"	290 (639)	< 60 dBA
STS 4P - 0630	630A	Front	1000 x 800 x 1800 mm 39.4" x 31.5" x 70.9"	430 (948)	< 65 dBA
STS 4P - 0800	800A	Front	1000 x 800 x 1800 mm 39.4" x 31.5" x 70.9"	510 (1124)	< 65 dBA
STS 4P - 1000	1000A	Front	1600 x 800 x 1800 mm 63.0 x 31.5" x 70.9"	820 (1807)	< 70 dBA
STS 4P - 1250	1250A	Front	1600 x 800 x 1800 mm 63.0 x 31.5" x 70.9"	860 (1896)	< 70 dBA
STS 4P - 1600	1600A	Front	2000 x 800 x 1800 mm 78.7" x 31.5" x 70.9"	1100 (2425)	< 72 dBA
STS 4P - 2000	2000A	Front	2800 x 1400 x 2200 mm 110.2" x 55.1" x 86.6"	1650 (3638)	< 72 dBA
STS 4P - 2500	2500A	Front	2800 x 1400 x 2200 mm 110.2" x 55.1" x 86.6"	1780 (3924)	< 72 dBA
STS 4P - 3200	3200A	Front	3000 x 800 x 2200 mm 118.1" x 31.5" x 86.6"	1900 (4189)	< 75 dBA
STS 4P - 3500	3500A	Front	3000 x 800 x 2200 mm 118.1" x 31.5" x 86.6"	1980 (4365)	< 75 dBA
STS 4P - 4000	4000A	Front & Rear	5600 x 1400 x 2200 mm 220.5" x 55.1" x 86.6"	3000 (6614)	< 75 dBA
STS 4P - 4500	4500A	Front & Rear	5600 x 1400 x 2200 mm 220.5" x 55.1" x 86.6"	3200 (7055)	< 75 dBA