E-Switch (STS) 16A – 50A

The e-STS static transfer switches are available in single phase, two pole versions at 16A, 32A and 50A. These switches ensure maximum reliability to loads by eliminating system failures caused by problems in distribution rather than the failure in power sources. The double-pole operation ensures flexibility for different types of electrical distribution.

The hot swappable power and control components reduce repair time while keeping loads powered, thus minimising system down time. Front to back, forced cooling / ventilation makes the e-STS ideal for application in data centres.

The e-STS can switch easily and safely between 2 power supplies under synchronous and asynchronous conditions. A redundant power supply can be set up by enabling controlled switching between 2 independent AC power supplies; switching occurs when the power line characteristics surpass pre-set tolerances.

Some key features include:

- Primary power source can be set by user
- Single-phase, 2-pole
- Hot swappable solid state components
- Forced ventilation with fan failure alarm
- Front to back cooling – ideal for data centres
- Break before make operation so 2 feeds are never connected in parallel
- Safe switching between 2 independent power supplies
- Redundant power supply switching
- Synchronous and asynchronous switching

Model	Capacity
E-STS 16	16A
E-STS 32	32A
E-STS 50	50A

Product Specifications

	Model	e-STS16A	e-STS32A	e-STS50A
	Capacity	**16A**	**32A**	**50A**
Input	Number of Switching Poles	2		
	Voltage Range	± 12%		
	Input Phases	1 + N		
	Nominal Frequency	50Hz		
	Power Ports	2		
Output	Nominal Voltage	230V – 220V/240V selectable		
	Efficiency	> 98%		
	Power Port	1		
Operation	Transfer Topology	Break before make – no source overlap		
	Transfer Mode/s	Automatic		
	Input Source Priority	Set by user		
	Transfer Time	CBEMA – ITIC compliant		
	Zero Voltage Source Failure	Worst Case: ≤ 6ms		
		Typical: ≤ 4ms		
	Transfer Delay	Asynchronous Transitions - 10ms ± 2ms (0 – 20ms selectable)		
	Re-transfer Time	5s		
	Synchronisation Range	10^0 (7.5^0 – 15^0 selectable)		
System & Protection	Audible Alarm	YES – Fan failure		
	LED Display	Interact with e-switch & reports on operational status		
	Over Current Threshold	3 In		
	Cooling	Front to back, forced, fully redundant		
	Overload Capacity	125% for 10min / 150% for 1min / 700% for 0.6sec		
	Protection	Fuse - $660V_{AC}$ 100A fast		
	I^2T at $T_{vj} = 125^0C$	15,000As		
	I_{TSM} at $T_{vj} = 125^0C$	1,750A		
	Pre-arching I^2T	$2,050A^2s$		
	Total I^2T at 230V	$3,740\ A^2s$		
	Mean Time Before Failure	> 800,000h		
	Mean Time to Repair	< 1 Minute		

Physical & Environment	**Dimensions** **W x D x H**	483 x 700 x 89 mm 19" x 27.6" x 3.5"
	Weight Kg (lbs.)	23 (50.7)
	Storage Temperature	0 – 40^{0}C (32 – 104^{0}F)
	Audible Noise	< 45dBA
Standards	**Safety**	CE Marking, IEC/EN 62310-1
	Protection Degree	IP21
	EMC Compatibility	IEC/EN 62040-2, class C2