



STS series

STATIC TRANSFER SWITCH

The EPI Static Transfer Switch is a solid state three phase STS designed to connect a critical loads to one of two separate sources of power, to assure supply continuity. The source to which the load is normally connected is designated as priority source and the other as alternative source.

EPI STS is fitted with two internal maintenance by-pass switches, which enable a load transfer to the supply sources without causing a power interruption to the critical load. Bypass isolation is complete, allowing all serviceable components to be maintained in safety.

EPI switches between different AC inputs lines according to priority criteria and technical characteristics of the input voltages. If the lines are synchronized, the transfer time from one source to the other is less than 4 ms.

A clever key-operating interlocks ensures that the two bypass switches (one for each line) cannot be simultaneously closed, thus avoiding the direct connection of the two sources. The control logic ensures that in the event of an accidental closure of the bypass on the passive line, the EPI STS will automatically transfer the load on the line should the bypass operation has been carried on. The layout is designed for maintenance and service for the active components from the front.

STANDARD OPTIONS:

3-phase 4-pole configuration plug-in circuit breakers
operation without neutral

OPTION ON REQUEST:

- Output distribution panels
- Isolation transformer
- Special IP rating
- Paint finish

FEATURES:

- Continuous monitoring of sources
- Automatic instantaneous transfer
- Manual transfer capability
- Redundancy of internal power distribution
- Dual maintenance manual by-pass
- Enhanced monitoring and diagnostics
 - RS232 and RS485 interface
 - System graphic control panel
 - Alarm, data history and event logs
 - Mimic panel with LEDs and audible alarm
 - Metering: kW, kVA, CF, PF, Current, voltage and frequency
- Compact size
- True over-sized neutral (2 In)
- Short circuit transfer inhibit
- Programmable alarm relay contacts
- Front access to all power components
- Bottom or top cable entry
- Redundant cooling with monitored fans



Technical Specifications:

STS 3 Technical Specification	
Nominal source voltage	380/400/415 Vac three-phase
Connections	3P + N + G (hardwired)
	3P + G as an option (hardwired)
Transfer mode	Break Before Make (no source overlap)
Transfer time	≤ 5,0ms
Source voltage range	±20,15,10,5%, adjustable (default ±15%)
Source frequency	50/60Hz adjustable
Transfer phase angle	± 7°,10°, 15° adjustable (default ±7°)
Load power factor	1 to 0,3 lag
	1 to 0,3 lead
Overload rating	125% for 10 minutes
	200% for 5 minutes
	500% for 30 cycles
	1000% for 1 cycle
Permitted unbalanced load	100%
THD current f.back from load	Unlimited
True neutral size	2 x In
Cable entry	Bottom or Top
Cooling	Forced, redundant
Source harmonic voltage content	unlimited (>20%THD transfer time ≤10ms)
Load current max. crest factor	3:1
AC to AC efficiency (kW/kW) full load 0.8 pf	≥ 99%
Operating ambient temperature	0 – 40 °C
Storage temperature	-15, +70 °C
Protection degree	IP21
Relative humidity	0 – 90% non-condensing
Altitude before de-rating	1000 m
EMC compatibility	IEC EN 61000-6-2, IEC EN 61000-6-4
Safety	EN50178
Marking	CE

2.1 Models data

Model	Current (Amps)	Access	Dimensions WxDxH (mm)	Weight (Kg)	Audible noise (dBA @ 1m)
STS 4P -0100	100	Front	600x650x1420	190	<60
STS 4P -0160	160	Front	600x650x1420	210	<60
STS 4P -0250	250	Front	800x800x1800	270	<60
STS 4P -0400	400	Front	800x800x1800	290	<60
STS 4P -0630	630	Front	1000x800x1800	430	<65
STS 4P -0800	800	Front	1000x800x1800	510	<65
STS 4P -1000	1000	Front	1600x800x1800	820	<70
STS 4P -1250	1250	Front	1600x800x1800	860	<70
STS 4P -1600	1600	Front	2000x800x1800	1100	<72
STS 4P -2000	2000	Front	2800x1400x2200	1650	<72
STS 4P -2500	2500	Front	2800x1400x2200	1780	<72
STS 4P -3200	3200	Front	3000x800x2200	1900	<75
STS 4P -3500	3500	Front	3000x800x2200	1980	<75
STS 4P -4000	4000	Front & Rear	5600x1400x2200	3000	<75
STS 4P -4500	4500	Front & Rear	5600x1400x2200	3200	<75

Different ratings available on special order