

SNA-STS SERIES

AC/AC Static Transfer Switches 16A to 125A single phase three phase



STS SCR Static Transfer Switch

The STS static transfer switch is a product specially designed for key equipment requiring uninterrupted power supply, and a contactless electronic switch device designed to realize mutual backup and quick switchover between two AC power supplies. It allows automatic or manual switchover, and the switchover time is <4ms so that continuous power supply to key equipment can be ensured.

Main Features

Switchover between two AC power sources

Automatic selection of better supply

Short switchover time: <4ms.

High reliability & Digital control: Using 32-bit DSP digital detection and control technology, it is characterized by strong anti-interference ability, high operational speed, high intelligence, and high control precision. High adaptability, The power supply may be any two AC power supplies with sinusoidal output.

Monitoring management: The indicator lamp panel can give out sound and light alarm upon fault, and RS485 communication and fault dry contact relays are provided.

Full protection: Overtemperature, Overvoltage, Over-frequency, Output over-current, and Overload (shutdown and automatic restart after 5 minutes in case of overload).



Electrical standards

EMC

EN 55032: 2015+A11: 2020

EN 55035: 2017+A11: 2020

EN IEC 61000-3-2: 2019

LVD

EN IEC 62368-1: 2020+A11: 2020

General Specifications

Model									
Single Pole Type	SNA-STS-16S	SNA-STS-25S	SNA-STS-32S	SNA-STS-40S	SNA-STS-45S	SNA-STS-063SM	SNA-STS-080SM	SNA-STS-100SM	SNA-STS-125SM
Double Pole Type	SNA-STS-16D	SNA-STS-25D	SNA-STS-32D	SNA-STS-40D	SNA-STS-45D	SNA-STS-063DM	SNA-STS-080DM	SNA-STS-100DM	SNA-STS-125DM
Phase	Single Phase								
Output Current	16A	25A	32A	40A	45A	63A	80A	100A	125A
MAX Allowable Current	18A	28A	35A	45A	50A	69A	88A	110A	125A
AC Input									
AC Input Voltage	110Vac/220Vac								
Input Voltage Range	90Vac-130Vac @ 110Vac; 190Vac-260Vac @ 220Vac								
Valid Working Voltage	±12%, backlash±5V								
Frequency	60Hz/50Hz(set in factory)								
Power off Voltage	110V: ≤55Vac or ≥135Vac, backlash±5V 220V: ≤190Vac or ≥260Vac, backlash±5V								
Power off Frequency	60Hz: ≤57Hz or ≥63Hz, ±0.2Hz 50Hz: ≤45Hz or ≥65Hz, ±0.2Hz								
Switch Time	< 4ms								
Overload Capacity	load current = 110%, operating continuously load current > 110%, immediately shut off								

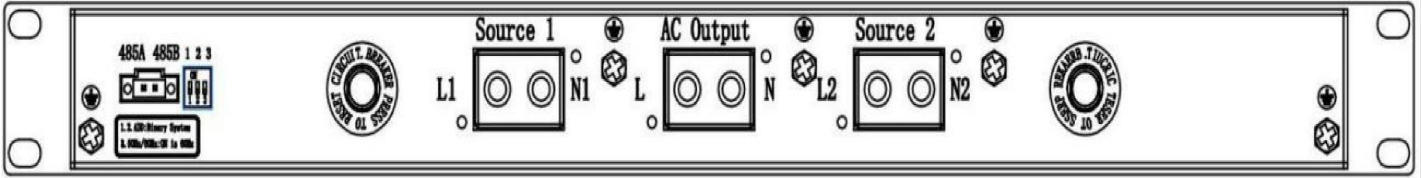
SNA-STS SERIES

AC/AC Static Transfer Switches 16A to 125A single phase three phase

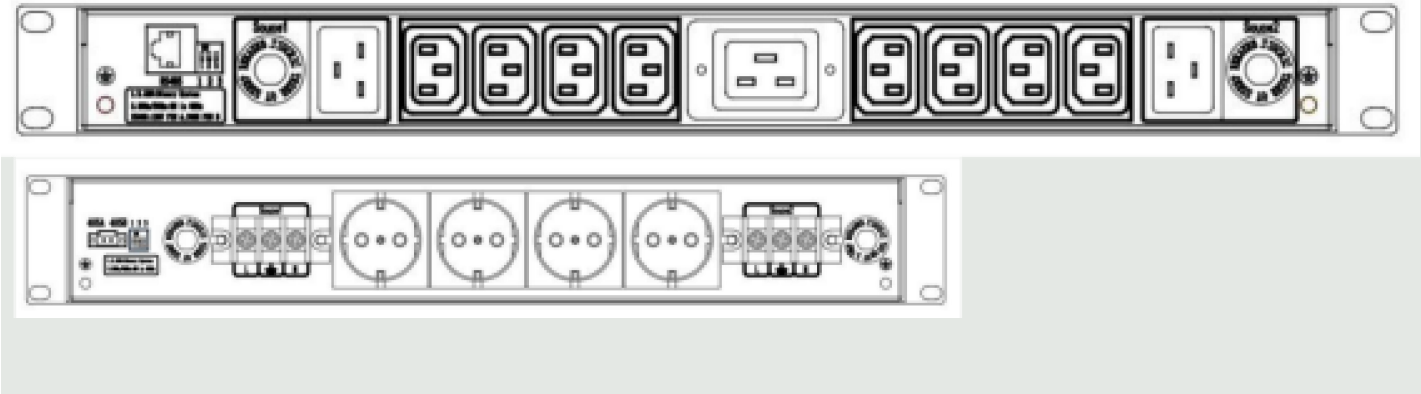


Working Environment		
Dielectric Strength	2000Vac/10mA/60s	
Humidity	0%-90%, no moisture condensation	
Work Temperature	-25°C~50°C	
Storage Temperature	-40°C~70°C	
Noise (1m)	<55 dB	
Operating Altitude	≤2500m	
Communication		
Communication	Modbus RS485	
Measurement		
Size (mm)	482*343*44.5(1U)	482*338*88(2U)
Packing Size (mm)	538*432*132	545*435*175
Net Weight(kg) N.W	6.5	8.5
Gross Weight(kg) G.W	7.5	9.5

Connection Design



Standard Design





APPLICATION

UPS Redundancy Systems:

Used in n+1 non-parallel UPS configurations. STS enables dynamic load distribution and millisecond-level fault switching among UPS units, preventing single-point failures and enhancing reliability, e.g., in financial trading center UPS clusters.

Hybrid Power Systems:

Facilitates intelligent switching between utility power, generators, and UPS of varying capacities. It quickly connects to backup power during outages and shifts loads to smaller UPS during light loads to optimize energy use, as seen in phased data center setups.

Critical Infrastructure Fields:

Applied in high-reliability, outage-sensitive scenarios. In data centers, it ensures continuous operation of servers and equipment; in medical facilities, it maintains stable power for life-support systems; and in industrial automation, it prevents production line disruptions.

STS SCR Static Transfer Switch

A static transfer switch is a dual input AC transfer switch, which normally connects one input and disconnects the other, supplying power to the load through one of the AC inputs. The STS AC dual power switching device adopts the high-speed static contactless switching design, when one of the ac inputs abnormal, the STS automatically switches to second input to ensure that the load is continuously powered without disruption.

Applicable Standard(s)

EN 62310-2:2007
EN IEC 61000-3-2:2019/A1:2021
EN IEC 62368-1:2024AMD.11:2024
EN 61000-3-3:2013AMD.1:2019
+ AMD.2:2021

FEATURES

- ◆ Full digital control with strong anti-interference ability and fast operating speed;
- ◆ Switching time ≤ 4ms, high reliability;
- ◆ Strong overload capacity, able to withstand full load startup;
- ◆ With input over-voltage and under-voltage, over-current and other protection functions;
- ◆ LCD display screen and LED indicator lights show status information of STS;

General Specifications

Model								
3 Phase common neutral	SNA-STS-32SM3	SNA-STS-40SM3	SNA-STS-45SM3	SNA-STS-50SM3	SNA-STS-63SM3	SNA-STS-80SM3	SNA-STS-100SM3	SNA-STS-125SM3
3 Phase not common neutral	SNA-STS-32DM3	SNA-STS-40DM3	SNA-STS-45DM3	SNA-STS-50DM3	SNA-STS-63DM3	SNA-STS-80DM3	SNA-STS-100DM3	SNA-STS-125DM3
Phase	3 Phase							
Output Current	32A	40A	45A	50A	63A	80A	100A	125A
MAX Allowable Current	35A	44A	49A	55A	69A	88A	110A	125A
AC Input								
AC Input Voltage	AC 380V±15% (Other voltages can be customized)							
Input Voltage Range	342Vac~418Vac @380Vac							
Valid Working Voltage	±10%, backlash±5V							
Frequency	50Hz/60Hz (set in factory)							
Power off Voltage	380V : ≤342Vac or ≥418Vac,backlash±5V							
Power off Frequency	60Hz: ≤57Hz or ≥63Hz, ±0.2Hz 50Hz: ≤45Hz or ≥65Hz, ±0.2Hz							
Overload Capacity	load current = 110%,operating continuously load current > 110%,immediately shut off							
Performance								
Transfer Time	≤4ms							
Power Factor	1							
Protection Grade	20							
Display								

SNA-STS SERIES

AC/AC Static Transfer Switches 16A to 125A single phase three phase



LED+LCD	Working Status/Voltage \ Current	
Protection function	Input under-voltage and over-voltage protection, output overload protection, over temperature protection, short circuit protection	
Working Environment		
Dielectric Strength	2000Vac/10ma/60s	
Humidity	0%~90%, no moisture condensation	
Work Temperature	-25℃~50℃	
Storage Temperature	-40℃~70℃	
Noise (1m)	≤55dB	
Operating Altitude	≤2500m	
Communication		
Communication	RS485 MODBUS protocol, CAN Optional	
Measurement		
Size (mm)	488*464*133mm(3U)	488*464*176mm(4U)