

Matrix 100A Static Transfer Switch (STS)

1. Feature

- Universal input range
- Hot-pluggable replacement in shelf
- Redundant fan design
- Redundant power supply design
- LCD / LED indicators for statuses and settings display
- Fast transfer time, Typically <math>< \frac{1}{4}</math> cycle
- Wide operation temperature range, -20~60°C
- Lower audible noise <math>< 55</math>dBA
- No-cross connect
- Optional maintenance bypass switch function
- CAN Bus interface embedded
- RoHS compliance



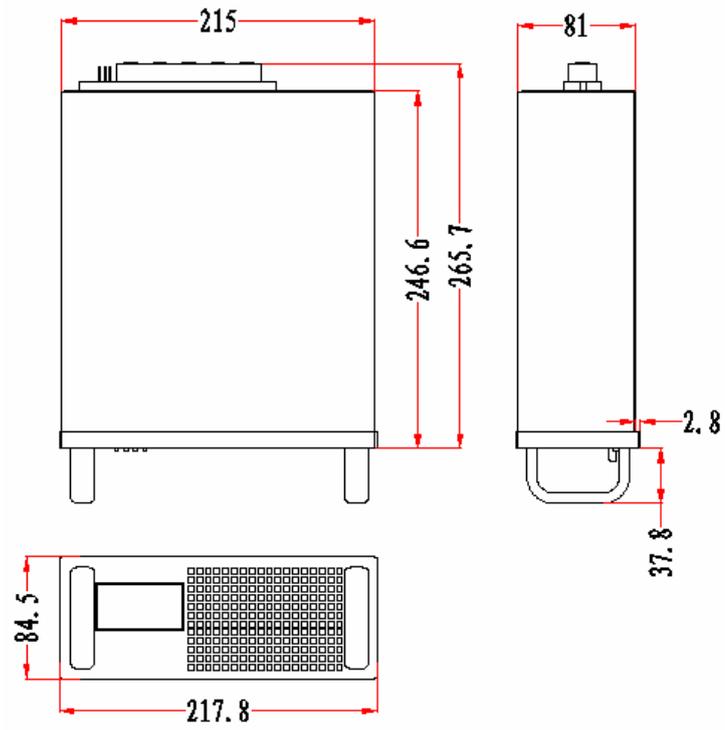
The STS (Static Transfer Switch) increases system reliability by automatic switch between the inverter output and the AC mains, providing protection against interruptions caused by system failure. By setting up the priority of operation mode, users can change the system status of “on line mode” or “off line mode”. The on line mode will keep the input power provided by inverter line and when inverter fails, the line will switch to AC utility line. In off line mode, the system power is always connected to the AC utility line and will switch to inverter power line when AC utility fails. The transfer time is less than 1/4 cycle which can avoid the power interruption. The reliable performance of STS module can provide the maximum protection to the connected telecommunication equipment against possible damage caused by the system power failure.

2. Specification

Item	Specification
AC Input	
Voltage Range	110/115/120 Vac: 89 to 138 Vac 208/220/230/240 Vac: 176 to 276 Vac
Over voltage threshold	276 / 138 Vac
Under voltage threshold	176/ 89 Vac
Backfeed Protection	Comply with safety requirement
Redundant power supply design	Startup power-on by priority source or alternative
AC Output	
Waveform	Sinusoidal
Nominal output voltage	Same as mains AC or the output of Inverter modules
Permissible frequency area	Max. +/-2.5% (Synchronize area of Inverter)
Transfer time	Typical 1/4cycle

Rated power	100A for 120/ 230Vac
Operation methods	Inverter priority/Mains priority programmable
General	
Certification	CE/ UL
Safety	EN 62040-1-1 / IEC 62310-1/ UL-1778
EMC	EN55022 class B
MTBF	> 250,000 hours as per Telcordia SR-332.
Rohs	Compliant
Environment	
Noise	55 dB, ETS 300 753, class 3.1
Operating temperature	Operation temperature: -20 to +60 degrees C, -20 to +50 degrees C with full performance.
Storage temperature	-30°C to +85°C
Operating humidity	95% RH (no condense)
Operating Attitude	1500m
Mechanical	
Dimension W x H x D (mm)	217 * 84* 265
Weight	5 kg
Hot swappable	STS hot swappable only available when MBS at Mains Bypass & Inverter Bypass position
Mounting method	Plug-in type module
Mechanical bypass switch requirement	The STS module used with a Mechanical Bypass Switch module shall provide voltage free system maintenance. It should be interlocked with the static switch module so that the static switch module cannot be removed without the maintenance bypass being activated.
Force cooling	2 Fans, force Cooling (Easy replaceable)

Dimension



3. Application

