

STATIC AUTOMATIC BUS TRANSFER (SABT)



Product Description

The SABT automatically transfers critical loads from a normal power source to an alternate power source in the event of interruption or abnormal conditions.

The SABT was developed to protect mission critical power loads on naval ships, submarines, and other defense applications. As such, the SABT is compatible with MIL-STD-1399 and STANAG 1008.

Designed using silicon-controlled rectifier (SCR) power-switching elements, the SABT transfers the critical load between power sources in less than 1/4 cycle upon loss of source—more than 10 times faster than traditional electromechanical switches—appearing seamless to even the most sophisticated loads. Transfer is programmable from 4 ms to 3.5 seconds.

The SABT has precision digital sense and control circuits that do not require any calibration or adjustments. All operational parameters are set digitally and the sensed analog signals are converted to digital format before being interpreted.

The SABT has dedicated logic for the critical interpretation and switching operations. The dedicated logic ensures fast and predictable operation at all times. A microcontroller performs the system level functions such as operator interface (control panel), operating parameter adjustment and remote monitoring.

The SABT is designed for ease of installation and minimum maintenance. The enclosure is drip proof and one size accommodates all ratings. This feature maximizes interchangeability of components.



FEATURES

- Continuous monitoring of sources
- Automatic transfer operation
- Manual transfer capability
- Redundant logic power
- Redundant fans
- Transfer between asynchronous sources of power
- Automatic retransfer with adjustable time delay
- Extensive self-monitoring capabilities
- RS-485 monitoring port
- All adjustable parameters set digitally
- Parameter settings may be password protected
- MIL-STD-1399/STANAG 1008 compatible
- MIL-S-901 Grade A shock & MIL-STD-167-I vibration qualified
- Will not transfer into a fault

- QPL certified to MIL-S-17773B, Amendment 3
- Depot level support

OPTIONS

- Maintenance bypass switch
- Bulkhead or deck mounting
- Installation and start-up
- Site testing and training programs
- Splash proof enclosure
- Adaptable to customer's data bus protocol
- Data log integral
- Documentation and provisioning

APPLICATIONS

- Naval ships & submarines
- Military bases

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ELECTRICAL CHARACTERISTICS

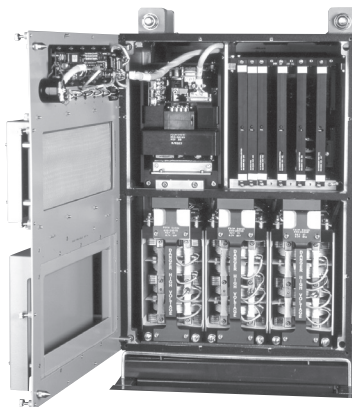
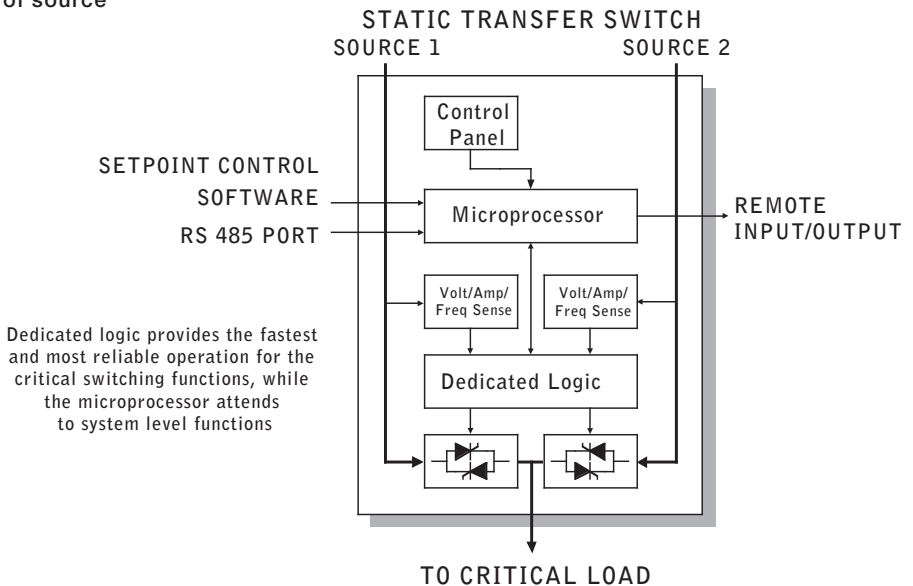
- Voltage/Frequency 440 V, 3-ph, 60 Hz, 3-wire
- Current Ratings 50 to 400 A
- Efficiency 99% nominal
- Overload 125% for 5 min.
- Withstand capability 30ka for 28ms

OPERATIONAL CHARACTERISTICS

- Senses time less than 2 ms upon loss of source
- Sense & transfer time 1/4 cycle upon loss of source
- RS-485 Port offers remote status access
- User Adjustable Settings:
 - Select preferred source
 - Overvoltage
 - Undervoltage
 - Retransfer On/Off
 - Retransfer delay time
 - Phase angle difference
 - Transfer delay (optional)
 - Transfer inhibit (overload)d
- Panel Indicators:
 - Summary alarm
 - Source 1 input available
 - Source 2 input available
 - Phase status
 - Source 1 active
 - Source 2 active
 - Source 1 preferred
 - Source 2 preferred
 - Retransfer On
 - Retransfer Off
 - Load power On
 - Auto Manual
- Panel Controls:
 - Fault reset
 - Lamp test
 - Auto retransfer on
 - Auto retransfer off
 - Select source 1
 - Select source 2
 - Control enable
 - Audible alarm reset
- Options:
 - Alarm
 - Maintenance bypass
 - 120 VAC voltage

ENVIRONMENTAL CHARACTERISTICS

- Operating temperature - 0°C to 50°C
- Relative humidity 0% to 95% (non-condensing)
- Shock MIL-S-901 Grade A
- Vibration MIL-STD-167-1



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SPECIFICATIONS

Dimensions	30.25" H x 19" W x 17.25" D 781 mm H x 483 mm W x 438 mm
Weight	280 lbs/127 kg

Specifications subject to change



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Appropriate for public release as defined under ITAR 120.10(5). DFOISR 05-S-0581 on January 13, 2005