DYNAMIC INRUSH RESTRAINT LIMITS INRUSH CURRENT FOR 480V APPLICATIONS

Based on loading and power system parameters, SuperSwitch3™ can dynamically modify its standard transfer switching algorithm. This technology limits the load inrush current in situations where the switch must make an immediate transfer to preserve load power quality. This breakthrough technology not only restricts the stress on fuses and breakers in the power distribution train, but also minimizes the chance of load interruption. Ultimately, this capability provides the maximum possible power quality of the voltage output for mission critical applications.

EXPERT POWER MANAGEMENT

With ever-increasing power requirements and the necessity to ensure uptime, SuperSwitch3 provides exceptional power management.

Waveform capture

SuperSwitch3™ is available with waveform capture. Cyberex's waveform capture
feature uses digital signal processors and
high speed analog to digital converters to
simultaneously sample both source voltages and currents. The waveform data is
collected in 0.1 millisecond intervals as
12 bit samples to provide an extremely
high level of detail.

The SuperSwitch3 is capable of storing 25 waveform capture events for both transfer and non-transfer events. Each measurement contains a total of 5 cycles; 2 cycles prior to the event and 3 cycles after the event.

The waveform can be sent via email and imported into an Excel spreadsheet for additional viewing and analysis.

Software-guided Breaker Operation and Bypass

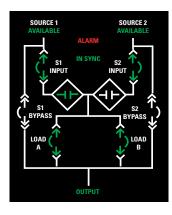
Easy to follow command and indicator lights eliminate the causes of human error.

Data and Alarm Management

With over 100 event types, 2500 events can be stored or downloaded for analysis.

Remote Access

Compatibility with Building Management Systems provides access from any location at any time.



Phase A-B: Phase B-C: Phase C-A: 469 V 471 V 477 V



CYBEREX_®

ABOUT THOMAS & BETTS POWER SOLUTIONS

Thomas & Betts Power Solutions is the leading designer, manufacturer and provider of power quality and reliability products and services marketed under the brand names Cyberex®, United Power®, Current Technology®, and Joslyn®.

Thomas & Betts Power Solutions, LLC is a wholly owned subsidiary of Thomas & Betts (NYSE: TNB).

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Redefining Reliability



Cyberex invented the first stand-alone STS in 1971 and the first fully digital unit in 1994. Cyberex continues to lead the market with breakthrough technologies.

SUPERSWITCH3 REDEFINES RELIABILITY

Thirty years ago, Cyberex revolutionized power distribution with its invention of the Static Transfer Switch. Since then, Cyberex has installed more units than any other manufacturer. It is from this experience and our customers' requirements that the SuperSwitch3™ has evolved.

Designed with a 'true' fault-tolerant architecture, SuperSwitch3 ensures there is truly no single point of failure through the use of our patented transfer algorithm and robust electrical components. With an increased MTBDE to an estimated 10 million hours, SuperSwitch3's reliability is unmatched. SuperSwitch3 redefines power reliability with its exceptional design, serviceability and user-interface.

SUPERSWITCH3 PROVIDES ADDED RELIABILITY TO

ANY ARCHITECTURE

BREAKTHROUGH TECHNOLOGY

- Fault-tolerant architecture eliminates single point of failure
- Patented SuperSwitch™ algorithm delivers unmatched transfer characteristics
- **Dynamic Inrush Restraint** protects system by minimizing downstream magnetizing currents
- Three tiered user-defined thresholds for power quality management
- Software-guided breaker operation eliminates human error
- Graphical user-interface and mimic panel for local system monitoring and configuration
- Remote access capability for system, event and alarm monitoring
- Flexible access for ease of cabling, operation and maintenance
- Unparalleled alarms, metering & diagnostics
- **Detailed Monitoring**, Reporting and Trending Capability
- Advanced Communications allow access at any time from any location
- Unique modular design reduces open-door time to 15 minutes for standard servicing
- Ultra-dense footprint reduces demand on valuable dataroom real estate
- Reduced number of internal components maximizes reliability

Preferred Source

Alternate Source



Rear View of SuperSwitch3 Showing Top or Bottom Power Feed Access

RELIABILITY THROUGH DESIGN EXCELLENCE

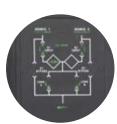
SuperSwitch3 provides maximum reliability through its innovative design. The modular components, from the Power Stage to the Redundant Bus Architecture, have been engineered to unprecedented standards. With the fewest numbers, yet most reliable components, SuperSwitch3 ensures the highest level of functionality and minimum open-door time.

Hinged Access Panels



Small-Footprint Chassis

As much as 30% smaller than comparable industry models, the ultra-dense design maximizes floor space. Ease of installation and flexibility are ensured by flexible access from either the front, side or rear. Power connections are made from either the top or bottom.



Graphical User-Interface

User-friendly software and Rapid Response™ mouse allow for quick system configuration, power monitoring and response to alarms. Independent mimic panel provides redundancy to LCD data.



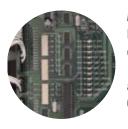
Printed Circuit Boards

Designed to eliminate a single point of failure, 10 robust boards are easily accessible (no stacking) and removed without load disruption. LED indication quickly provides comprehensive selfdiagnosis status.



Power Stage Assembly

Fully rated SCRs are employed to prevent system damage after load faults. Infrared scans are easily accomplished without removal of assembly. Service friendly design permits removal in 15 minutes or less



Main Logic Board

Integral design provides advanced diagnostics and management of three-tiered power quality. Separate boards are used for each source, while independent drive circuits, with high fault isolation, are used for each phase. Fiber optic communications between the Gate Drive Board improves noise immunity and fault isolation.

Power Supply

With each supply capable of supporting all control power, the Triple-redundant design ensures reliability. In the event of a fault, multiple alarms are activated.



DID YOU KNOW?

Cyberex is the leading brand used by

financial institutions. More than 6,000 units

are installed worldwide.

Control Wiring

Electrical noise is mitigated by limited harnesses and signal interconnections, coupled with pre-defined cable routing and guick disconnects.



Power Wiring and Bus Connections and maintenance

are made easier by staggered phase connections and ample gutter space. 100% of connections are torqued ensuring maximum reliability.



Molded Case Switches

Provide maximum interruption for fault currents and eliminate nuisance trips. Plug-in style components designed for easy and quick exchange.



Redundant Cooling Smartly designed to ensure

maximum cooling and reliability, the Doubleredundant fans provide back-up cooling and notification of any fan failures.



Gate Drive Board

Continuously monitors and reports the state of the SCRs and provides precision scaled voltage for power quality and metering. Independent of graphical user interface, board always remains in state last commanded by the main logic.

FEATURES AND SPECIFICATIONS

Components	
SCR	Fully-Rated, Hockey-Puck Type
Mimic Panel	LED Current Flow
LCD	Graphical, Backlit (Std.) Color Display (Opt.)
Fans	Dual Redundant
Power Supplies	Triple Redundant
Internal Bus	Dual Redundant
TVSS	80kA

Communications an	Communications and Software		
Password Protection	Defined User Tiers		
Remote Access	RS232, RS485 and Web-Based		
Event Types	Information, Warnings and Alarms		
Alarm Notification	Email (or Email to Pager)		
Software Upgrades	Remote Downloadable		
Emergency Power Off	Remote (Std.) Local (Opt.)		
Relay Contacts	5 (Std.)		

ı	Power and Event in	nanagement		
	Metering 1	kVA, kW, Ipeak, Phase, Current, Voltage, Frequency		
ı	Metering 2	Power Factor, kVA Demand, Harmonic Analyzer		
	Event Alarm Log	2500 Events		
ı	Electrical Characteristics			

ı	Liecifical Characteris	decirical characteristics				
ı	Voltage/Frequency	208/480/600V, 3 Phase, 4 Wire, 60Hz				
	Current Rating	200/400/600/800A/1000A				
	Short-circuit Withstand	100kA				
	Overload Capability	125% (30 Min.) 150% (1 Min.) 1000% (3 Cycles)				
	Circuit Breakers	Non-Automatic or Automatic				
١	Operational Characteristics					

Operational Char	acteristics
Controls	Full Digital
Type II	Fuseless Current Path
Bypass	System Assisted
PQ States	Preferred, Acceptable and Emergency
Transfer	Automatic or Manual
Sensing Time	2ms
Auto Transfer	4ms (or Less)
Reacquisition	3 Cycles
Transfer Angle	User-Defined Max180°
Temperature	0 to 40°C (Operating) 0 to 80°C (Storage)
Audible Noise	<65 dBA (6 Ft.)

Standards	
NEMA	All Applicable Standards
UL	1008 Listed
FCC	Compliant (Part 15)
NEC	2002
ANSI/NFPA	70 (2002)
IEEE	587 (ANSI C62.41)

SELECTION (TYPE II MODELS)

Amps	Volts	Dim. (WxDxH)	BTU/hr.	Weight	Model #
200A	208V	34"x 34"x 76"	2400	1200lbs.	DSR-02002-326-208-6N100
200A	480V	34"x 34"x 76"	2400	1200lbs.	DSR-02002-326-480-6N100
400A	208V	34"x 34"x 76"	3600	1200lbs.	DSR-04002-326-208-6N100
400A	480V	34"x 34"x 76"	3600	1200lbs.	DSR-04002-326-480-6N100
600A	208V	34"x 34"x 76"	4800	1400lbs.	DSR-06002-326-208-6N100
600A	480V	34"x 34"x 76"	4800	1400lbs.	DSR-06002-326-480-6N100
A008	208V	46"x 34"x 76"	6000	1800lbs.	DSR-08002-326-208-6N069
800A	480V	46"x 34"x 76"	6000	1800lbs.	DSR-08002-326-480-6N065
1000A	208V	46"x 34"x 76"	8400	2400lbs.	DSR-10002-326-208-6N069
1000A	480V	46"x 34"x 76"	8400	2400lbs.	DSR-10002-326-480-6N069

For more information go to www.Cyberex.com