Zenith™ Series STS-3 Static Transfer Switches

60Hz UL Version, 150-1600AMP

Over 15,000 downloadable resources for our customers

GEIndustrial.com/products/critical-power provides customers with access to the latest product and solutions news, downloadable resources and interactive digital tools.

- Access to the entire portfolio of product solutions:
  - Brochures
  - Manuals
  - Software
  - Drawings
  - Videos
- Multi-language support in Chinese and Spanish
- Industry solution offerings & advanced navigation

Touching all Areas of the Energy Industry

GE’s diverse portfolio of products and services is helping customers solve problems every day. We touch all areas of the energy industry including energy management, smart grid modernization, coal, oil, gas, nuclear energy, water, wind, solar and biogas.

Providing Reliable Power to your Mission-Critical Business Needs

With a comprehensive energy management portfolio, GE is uniquely qualified to provide comprehensive datacenter, commercial and industrial infrastructure solutions from its’ Industrial Solutions business unit. Due to the inherent high-efficiencies offered with GE electrical distribution equipment and GE UPS systems, PUE values can be minimized by the integrated use of these solutions.

Our critical power products and services can be utilized to deliver reliable datacenter infrastructure support, solid project management and outstanding site service solutions.
End-to-End GE Solutions for Datacenter Power Needs

GE MV Main Switchgear → Standby Generator → GE Generator Paralleling Switchboard → GE LV Main Switchgear → GE ATS → GE LV Switchboard → GE Surge Protection → GE UPS System → GE Series STS-3 (Static Transfer Switch that offers a method of UPS redundancy)

GE Distributed Power Busway → GE Monitored Distribution Unit → Datacenter Slab Floor

GE Remote Distribution Unit → Datacenter Raised Floor

IT Critical Load Servers

Zenith Series STS Brochure | www.geindustrial.com
Zenith STS-3 Series; Three Phase Static Transfer Switch  
Seamless Input Source Transfers for Critical Loads

Fully Automatic, Transparent Dual-Source Switching  
GE Industrial Solutions is a key supplier of static transfer switches to a wide range of industries. The STS-3 communication package adds to this preference as it incorporates all of the features that the data center manager wants in one compact package. Using solid state SCR (Silicon Controlled Rectifier) technology, the GE static transfer switch supplies critical loads with a choice between two available sources of electrical power. By continually monitoring power quality, the STS-3 switch automatically transfers to an alternate source without interruption of power to even your most sensitive critical loads. With a sense and transfer time of less than 4ms and the industry’s best communication package, the GE STS-3 represents the highest performance power switching solution available.

The STS-3 communication package enhances the overall reliability and availability of power to your facility by:

- Providing instantaneous access to redundant sources of power
- Preventing cross connection of sources during transfer and eliminating the possibility of cross current between sources
- Enabling on-line maintenance of upstream equipment
- Redundant power supplied and operator interface panel
- Showing real time wave form captures on the LED screen

True System Redundancy

Component Redundancy Redundant operator interface module, power supplies, control power circuits and sensors.

Logic Redundancy Redundant voltage detection systems, voltage sensing/sampling systems and independent redundant logic with two different logic algorithms.

System Redundancy Redundant static transfer mode power path, bypass power path and optional dual isolation switches.

Standard Tri-Redundant System The ultimate in power system reliability

The GE Difference

Packaging Flexibility Configurable as part of GE’s MDU/RDU Series of Power Distribution Systems.

Rigorous Product Testing Fully rated switching elements are tested at 6000 operations at 150% load and 50 operations at 600% load. This testing is backed by GE Critical Power Quality Assurance Program.

Modular Design Modular design results in higher quality throughout the line and delivery schedule ready to meet the most demanding timelines.
STS-3 Technical Data & Features

Ratings
- 150, 250, 400, 600, 800, 1000, 1200, 1600 Amp
- 208, 415, 480, 600 Vac, 3phase 3 wire
- Switching neutral option
- (5) or (6) Molded Case Switches
- 500% overload for 10 sec.
- MTBF exceeds 2,000,000 hours
- 22 KAIC (65 and 100 KAIC optional)

Redundancy
- Fail safe dual redundant display
- Triple redundant logic
- Triple redundant power supplies
- Dual redundant gate drivers for SCRs - two gate drivers for each SCR

Logic
- Volt second synchronization (VSS) limits downstream transformer inrush on 480Vac STS during startup, restarts, and transfers
- VSS limits inrush to 1.5X up to 180 degrees out of phase
- Dynamic transfer delay for use with UPS systems that have ecomode operation (like GE eBoost)

Communications Package
- Web enabled through Web Browser
- SNMP port
- Modbus RTU through RS 422/485 port
- USB port for downloading stored data - event recapture

Security
- Layered security through log on access
- User logon ID and PIN number required for STS operation
- All log ins are time and date stamped for future reference
- Event/alarm memory is 2MB

Certifications
- ETL listed to UL 1008 standards

Physical Data

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<tr>
<th>AMP RATING</th>
<th>WIDTH</th>
<th>DEPTH</th>
<th>HEIGHT</th>
<th>WEIGHT LBS</th>
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<td>89.25&quot;</td>
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<td>74.75&quot;</td>
<td>3,600</td>
</tr>
</tbody>
</table>
Graphical User Interface
- Fully functional touch screen, 262k color
- 10.4" diagonal LCD touch screen, 640x480 resolution
- Redundant fail safe analog control panel

Installation and Maintenance
- “Hot Swap” capability for Printed Circuit Boards (PCB)
  - Optical Bus allows for replacement of PCB while STS is powered and connected to the load
- “Hot Swap” capability for touch screen
  - By engaging the Redundant Analog Control Panel, the GUI may be replaced without interrupting power
- Front access only required for I/R scans of all terminations
- SCR module is on draw-out slides for ease of service
  - Logic module is on draw-out slides for ease of service and greater access for I/R scans

Monitoring
- Fail safe dual redundant display
- All status, events and alarm logs may be viewed via Web Browsers
- Events will record up to 10 seconds after loss power
- “Real Time” capture of wave forms
- Branch circuit monitoring systems graphing available
- Graphic depiction of voltage and current harmonic trends
- All STS stored data is captured and available at the Switch
STS-3 Available Systems

Stand-Alone System

Primary Redundant STS-3/MDU System

Both STS unit and MDU unit are in matching cabinetry for a complete system solution
GE Industrial Solutions... Servicing your Critical Power Infrastructure Investments... ATS, UPS, STS, PDU’s, and other Electrical Distribution Equipment

GE’s Services offerings range far beyond standard product support: from on-site services for risk-reducing installation and startup, to availability services to help you proactively reduce downtime and meet your service-level commitments. From installation to product retirement, warranty upgrades to remote monitoring, proactive care to 24/7 problem resolution, you can rely on GE’s field service organization for all your electrical infrastructure support needs.

**On-Site & Emergency Services**
- 24/7 Emergency Hotline

**Spare Parts**
- Spare Part Kits
- Product Replacement / Return
- Equipment Rentals
- Parts Replacement

**Contractual Services**
- Maintenance Service Contracts
- Remote Monitoring & Diagnostics
- Technical Services

**Training**
- Training for Operators
- Training for Maintenance Staff
- Product Training
- Web-Based Training

**Factory Testing & Customer Witness Testing**

Factory Testing can include, but is not limited to:
- STS functional tests
- UPS functional tests
- UPS/STS integration testing
- Testing to standard GE test scripts
- Testing to custom project test scripts
- Full testing documentation/results

**Field Testing & Service Capabilities**
- STS Testing
- UPS System Testing
- Load Bank Testing
- Thermography Testing
- Project Management
- Site Commissioning Assistance
- Repair, Upgrade, Retrofit
- Site Audits & Assessments

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