

## AC Power Products Overview

North America • August 2015

Imagination at work

# Ensure 24/7 Uptime for the World's

Mission Critical Applications

## Telecommunications & Wireless Connectivity



## Healthcare

GE backup systems restore power

...when every second counts



## Data Centers, Internet, E-Commerce & **Critical Business** Operations



## Industrial, Wastewater & Power Generation



# Government & Military



# Transportation



# Financial Services, Banking & Wall Street



### Businesses & technologies upon which the entire world depends on...

# to sustain & enrich our daily lives



## It begins with an Automatic Transfer Switch



### ATS Advanced Switching of Power Sources

An essential part of any emergency or standby power system, quickly transferring loads from one power source to another source.





### Zenith ZT30 30-Cycle Automatic Transfer Switch

### Transition

Standard (Open), Delayed, or Closed Transition. All Transition Types available in Bypass/Isolation mode.

### Applications

Healthcare facilities, 7x24 operations (data centers, e-commerce, call centers), telecom central offices, wastewater treatment — Best-in-class footprint.

Rating	Output	Certification
1000-3000 Amp, 3 Phase	Up to 600 Volt	UL 1008/CCC

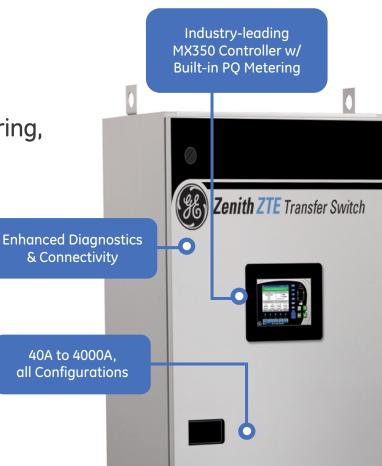


## Zenith ZTE Series

Specifically designed for large healthcare and mission critical applications, with built-in PQ metering, communications and advanced diagnostics.

Transition Standard, Delayed, Closed & Bypass/Isolation

Rating	Voltage	Certification
40-4000 Amp	120-600 Volt	UL1008/IEC/CCC





## Zenith ZTS Series

Highly reliable and flexible source switching for essential healthcare equipment and business critical applications.

### Transition

### Standard, Delayed, Closed & Bypass/Isolation

Rating	Output	Certification
40-4000 Amp	120-600 Volt	UL1008/IEC/CCC





## Zenith ZTSMV Series

Vacuum Circuit Breaker Design

Built for business and industrial critical applications requiring reliability and enhanced operation.

### Transition

Standard, Delayed & Service Entrance

Rating	Voltage	Compliance
Up to 4000 Amp	Up to 35000 Volt	ANSI/EEE spec C37





## Zenith ZTG Series

Rugged construction and flexible configurations for large commercial and industrial applications.

### Transition

### Standard, Delayed & Service Entrance

Rating	Output	Certification
40-3000 Amp	120-600 Volt	UL1008/IEC/CCC

**Communication Capability** & Self Diagnostics

MX150 Controller w/ 4-line Display & Local Adjust Timers, Settings

Intuitive User Interface

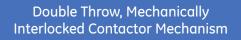


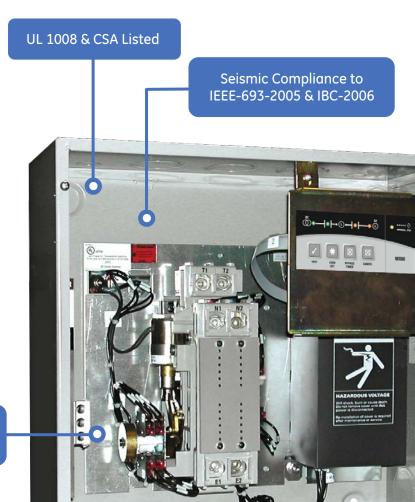
## Zenith ZTX

Reliable, easy-to-operate source switching for small frame commercial and light industrial applications.

### Transition Standard

Rating	Output	Certification
40-400 Amp	120-480 Volt	UL1008/IEC



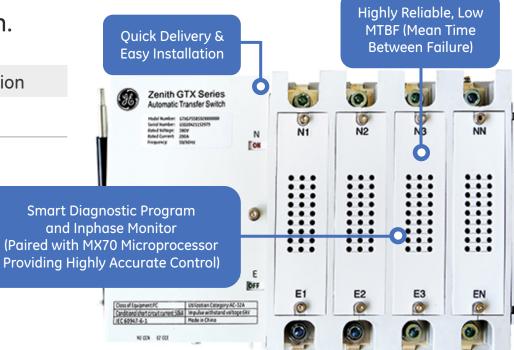




### GTX

Built for light commercial critical/non-life safety applications requiring the dependability and ease of operation.

Rating	Voltage	Certification
32-2600 Amp	120/380V, 208/416V, 50/60Hz	CCC/IEC





### Next comes PSG Generator Paralleling Switchgear



### **PSG** Reliable Switchgear & Controls for Paralleling Standby Generators



Ensures backup power for extended utility outages where multiple parallel generators are needed to supply system loads.



Customized solutions for mission critical applications



Standard - innovative rack design, plug/play for North America and international emergency standby



## Energy Commander PSG

System Ratings Low Voltage: 600V & below | Medium Voltage: 5-35KV

#### **Emergency/Standby**

Emergency applications with life safety/code requirements, such as hospital and wastewater facilities.

#### **Distributed Power/Distributed Generation**

Revenue savings through reduction of utility charges via co-generation in parallel with the utility, or using generators as prime power source instead of utility service.

#### **Critical Power**

Avoid revenue losses caused by extended utility power outages for large industries such as e-commerce, high-speed manufacturing and broadcast.





## **Digital Commander**

GE's Digital Commander Paralleling Switchgear (PSG) is a leading solution to simple and very complex systems due to its design flexibility and reliability.

Digital Power Quick Easy Paralleling Switchgear Custom Configurable

**Controls Modular** 

Hardwired Backup & Color Touchscreen

#### Flexibility

Paralleling power sources allows a facility a wide variety of choices in the generation, distribution and utilization of the system's power.

#### **Uninterruptible Maintenance**

When one engine - generator set is out of service for maintenance or repair, having others synchronized on the same bus can provide the needed back-up power, should an outage occur.

#### **Cost Savings**

Savings can be realized on the application when a number of smaller sets would be less expensive than one large set or when the load makes it impractical to divide into several sections, each with its own generator.



# UPS Systems – 3Phase

Providing Clean, Reliable and Efficient Power with Battery Backup



## **TLE Series**

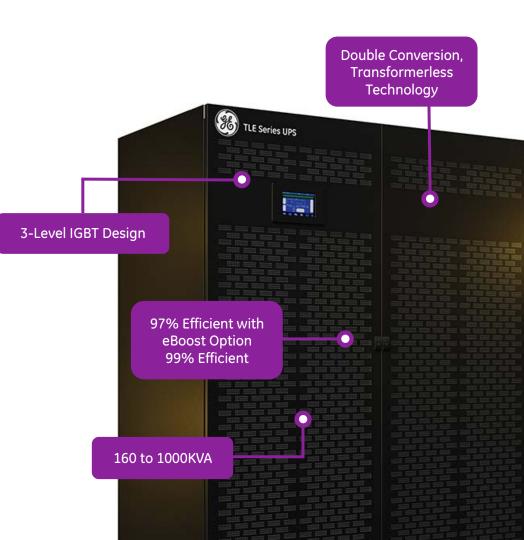
99% efficient UPS with 3-level IGBT design, eBoost technology, transformerless topology

### Applications

Data centers and other critical process applications

Rating	Voltage	Certification
225-1000 kVA	480/277 VAC	UL
160-800 kVA	400/230 VAC	CE



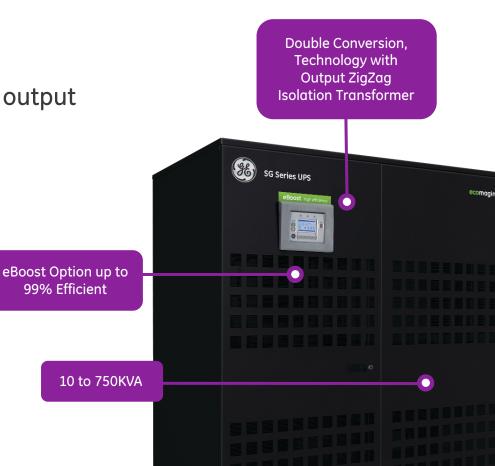


## SG Series

99% efficient UPS, eBoost technology, output zig-zag transformer

Applications Data centers, healthcare equipment, broadcast transmission

Rating	Voltage	Certification
225-750 kVA	480/277 VAC	UL
10-150 kVA	480/277 VAC	UL
10-600 kVA	400/230 VAC	CE





## LP33 Series

2-level IGBT design, ECOmode, transformerless topology, small footprint

### Applications Data networks, telecom

Rating	Voltage	Certification
10-100 kVA	208/120 VAC	UL
10-120 kVA	400/230 VAC	CE





### UPS Systems – 1Phase Structured Cable Applications – IT Networks & Critical Process

Delivering reliable power in a compact package for smaller power applications such as IT networks and critical processes



## VCL Series UPS

Line Interactive topology, automatic voltage regulation, step-wave output with internal hot swappable batteries

### Applications

Point-of-sale (EPOS), ATMs, network peripherals, PCs, routers, CCTV & security and servers

Rating	Voltage	Certification
800-3000 VA	120 VAC	UL
400-1500 VA	230 VAC	CE





## VCO Series UPS

Double conversion technology, Data line surge protection , High operating efficiency

Applications Point-of-sale (EPOS), ATMs, network peripherals, PCs, routers, CCTV & security and servers

Rating	Voltage	Certification
1000 - 3000 VA	230 VAC	CE





## **VH Series UPS**

Voltage & frequency independent (VFI), hardened design, superior battery management

### Applications

Healthcare, marine, wind turbine & controls, mission critical servers, laboratory testing devices

Rating	Voltage	Certification
700-2000 VA	120 VAC	UL
700-3000 VA	230 VAC	CE





## **GT Series UPS**

True VFI, on-line double conversion, high performance UPS, parallel-ready technology with modular battery and easy expansion/retrofit

### Applications

IT centers, telecom equipment, security systems, financial institutions, fixed and mobile voice/data transmission

Rating	Voltage	Certification
5-10 kVA	120/208/240 VAC	UL
6-10 kVA	230 VAC	CE





## LP11 Series UPS

Double conversion, high efficiency (up to 97%) and redundant parallel capable, with galvanic isolation and GE's battery management for load security.

### Applications

Healthcare & retail medium data networks, telecom equipment, local site protection

Rating	Voltage	Certification
5-10 kVA	120/208/240 VAC	UL
3-10 kVA	230 VAC	CE





### **Critical Power Distribution** Data Center Power Distribution and Branch Circuit Monitoring

### MDU Series Monitored Distribution Units

Providing flexible power distribution and voltage transformation, including panel boards, subfeed breakers and monitoring.

### Applications Data centers of all sizes

Model	Rating	Certification
MDU-CL	50-300kVA	UL
MDU-HP	225-750kVA	UL





### **RDU Series** Remote Distribution Units

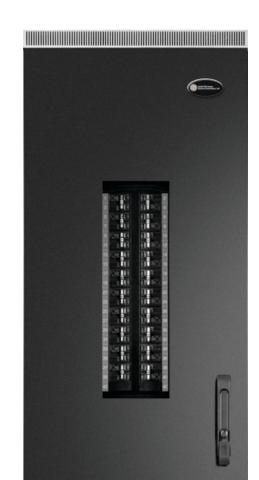
Providing an extension of flexible power distribution and monitoring via panel boards, in several cabinet/design styles.

### Applications

Data centers of all sizes

Model	Rating	Certification
RDU-CL	Classic, 225/400A	UL
RDU-MC	Mission Critical, 2 Source	UL
RDU-SC	Server Cabinet Use	UL
RDU-WM	Wall Mount Use	UL





## **DPB Series** Distribution Power Busway

Providing overhead power distribution and monitoring to server cabinets or other critical loads.

#### Applications

Data centers of all sizes, other overhead power distribution applications

Model	Rating	Certification
DPB	160-800 Amp	UL





# Static Transfer Switches

#### Data Center Use of 4-6msec Transfers Between Power Sources

### STS-3 Series 3Phase, Free-Standing

Providing the ability for millisecond transfers between utility or UPS power sources and minimizing inrush current on out-of-phase transfers.

#### Applications

Large data center infrastructures

Model	Rating	Certification
STS-3	150, 250, 400, 600, 800, 1000, 1200, 1600 Amp	UL





### STS-1 Series 1Phase, Rack Mount

Providing dual source capability to critical loads in many market segments, including dual power sources for single-corded IT servers.

#### Applications

IT network racks, industrial, medical, critical process

Model	Rating	Certification
STS-1	25, 45, 65 Amp	UL





## **Surge Protection Devices**

External Units Outside Switchgear Assemblies

Engineered for reliability, flexibility and long life in the most extreme surge environment

# **TR Wall Mount Series**

The **TR Series** wall mount SPD handles the highest levels of surge activity found in commercial and industrial facilities.

Per	Per	Short Circuit	Voltage	NEMA
Mode	Phase	Rating		Rating
65kA-300kA	130kA-600kA	65 and 200kAIC	120V to 600V	NEMA 1, 4, 4X, 12





# **Tranquell Series**

The **GE Tranquell Series Surge Protective Device (SPD**) line is available in wall mount construction, as well as integrated within GE low voltage distribution equipment such as panelboards and switchboards. GE can also provide custom products for integration in other manufactures equipment. An integrated design allows for short lead lengths, with a controlled installation process. The integrated design eliminates installation errors, saves wall space and can reduce the installed cost of the protection.

Per Mode	Per Phase	Short Circuit Rating	Voltage	NEMA Rating
40kA	80kA	65 and 200kAIC	120V to 240V	NEMA 1





### TR Panel Box Extension Series

The **TR Panel Box Extension SPD** provid the benefits of a separate wall mounted but uses less horizontal wall space.

Per Mode	Per Phase	Short Circuit Rating	Voltage	NEMA Rating
65kA-300 kA	130kA-60 0kA	65 and 200kAIC	120V to 600V	NEMA 1, 4, 4X, 12





## TR 5-450 Series

The **TR 5-450 Series** SPD provides industrial surge protection for sensitive electronics, in a rugged cast aluminum enclosure.

Per Mode	Per Phase	Short Circuit Rating	Voltage	NEMA Rating
40kA	80kA	65 and 200kAIC	120V to 240V	NEMA 1





# Consulting Services, Power Quality Audits & Expert Product Training



# Worldwide Technical Support

backed by an Extensive Mfg. Rep. Network



# Want to Learn More?

# Connect With Us

Contact a GE Critical Power Representative today for a personal consultation.



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