

PRODUCT PORTFOLIO



STACO
ENERGY[®]
PRODUCTS CO.

WHY STACO ENERGY PRODUCTS?

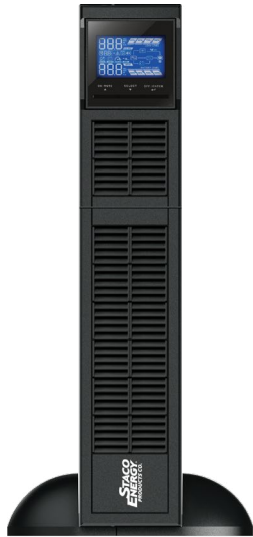
BECAUSE WE ARE YOUR TAILORED POWER SOLUTIONS PROVIDER!

Unique application design demands, harsh environment concerns, the need to meet non-standard physical space requirements—providing the “not so usual” is what we do best. From leading edge uninterruptible power supplies, power conditioners, power factor and harmonic correction equipment, to the world’s most stable voltage control systems, we have the technology you need to protect and manage your business, and the knowledge to make it work for you.

Since 1937, customers worldwide have relied on Staco Energy as their tailored solutions provider, to solve a wide range of electrical power problems. Headquartered in Dayton, Ohio, Staco Energy Products is a wholly owned subsidiary of Components Corporation of America, located in Dallas, Texas.

SINGLE-PHASE | DOUBLE-CONVERSION | ON-LINE UPS

The UniStar® Series represents the latest in single-phase technology at an affordable price. Its true on-line performance provides a clean, steady sine wave safeguarding the most sensitive equipment.



UNISTAR V 1 - 3 KVA

- 120/120 VAC & 230/230VAC
- Standard and LB Extended Models Available
- Universal Tower/Pack Mount



UNISTAR VP 6 & 10 KVA

- 0.9 Power Factor
- Continuous Digital Signal Processor Control
- LCD/LED Mimic Panel
- Parallellable



UNISTAR PDU FOR USE WITH UNISTAR VP MODELS

- 2 ft. hardwire (pigtail) input cord
- Configuration versatility
- Pre-configured standard NEMA straight blade and/or locking receptacles

SINGLE-PHASE | STANDBY

The UniStar® Smart Business Standby (SB²) UPS offers reliable power protection and battery backup for desktop computers, workstations, networking devices, POS systems, and entertainment systems. It provides battery backup and surge-protected outlets to meet the demands of multiple devices in a highly reliable package.

**UNISTAR SB²**
350 - 800VA

- Simulated Sine Wave Output
- Compact size for standalone and mounting flexibility
- Battery Backup & Surge Protected Outlets

SINGLE-PHASE | LINE INTERACTIVE

The UniStar® Smart Business (SB) Touch Screen LCD Line Interactive UPS provides comprehensive power protection in a small and economical package. The UPS prevents data loss and protects electronic equipment, such as PCs, workstations, networking devices/VoIP, POS systems, and entertainment systems, from harmful power problems. In addition to protecting against surges and spikes, it also provides pure voltage with built-in AVR stabilizer. The UPS will continue providing clean and stable power to connected equipment while its embedded microprocessor controller guarantees high reliability, perfect for any small office application.

UNISTAR SB
400VA - 2 KVA

- Simulated Sine Wave Output
- All Battery Backup Outlets
- Touch Screen LCD
- Automatic Voltage Regulation (AVR) to correct brownouts and overvoltages without using battery power

**SINGLE-PHASE | LINE INTERACTIVE | NETWORK CAPABLE**

The UniStar® Smart Business Network (SB-NET) Line Interactive UPS provides server-grade full power protection from power failures, spikes and surges in a small footprint with enhanced output power factor of 0.8. Combining a flexible rack/tower configuration with the easy-shift LCD panel design, this series is perfect for networking, telecom, server and mission-critical applications.

UNISTAR SB-NET
800VA - 3 KVA

- Pure Sine Wave Output
- Battery Backup & Programmable Outlets
- Multiple communication options
- Universal Tower/Rack Mount
- Hot Swappable battery design
- Automatic Voltage Regulation (AVR) to correct brownouts and overvoltages without using battery power



BATTERY MONITORING | WIRELESS | WIRED

Staco Energy offers Battery Monitoring Systems (BMS) that have been designed with the end user in mind. The FirstLine BMS and FirstLine BMS-II allow users to easily access real time data on the health of their UPS, Switch Gear, Generator, or other standby battery system. In addition to providing email alerts and data retention for trend analysis, the systems allow the end user the flexibility to monitor the system via Local Area Networks (LAN) or Wide Area Networks (WAN).

**FIRSTLINE BMS**
WIRELESS BATTERY MONITORING SYSTEM

- Ease of installation
- Alarms via email & dry contact
- Graphic LCD touch screen
- Battery cycling data

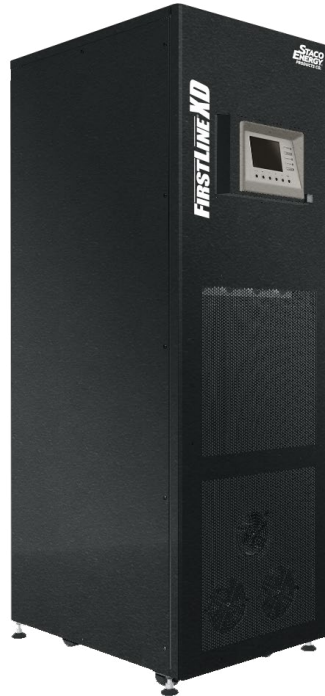
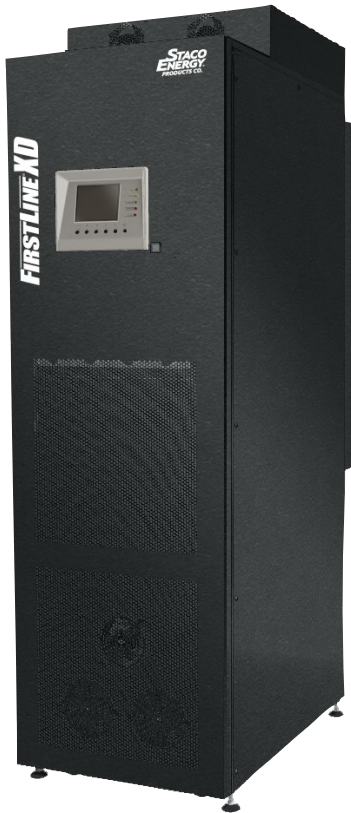
**FIRSTLINE BMS-II**
WIRED BATTERY MONITORING SYSTEM

- Ease of installation
- Alarms via email & dry contact
- Web based Graphical User Interface (GUI)
- Cell balancing
- Data available for trend analysis
- Can integrate UPS telemetry into one IP device
- Optional IFC Compliant & Control

FIRSTLINE®

THREE-PHASE | DOUBLE-CONVERSION | PARALLELABLE | ON-LINE UPS

The FirstLine® Series represents the latest in three-phase, on-line double conversion technology. In the event of an AC power failure, a FirstLine® Uninterruptible Power Supply (UPS) will automatically transfer to battery power and continue to provide power without any interruption for the full amount of time you select. When power returns, a FirstLine® UPS will automatically recharge the batteries for the next unexpected power outage or disturbance.



FIRSTLINE XD

10 - 40 KVA

INDUSTRIAL UPS

- 208VAC
- Available in 208 & 480 Voltages
- Single Phase or Three Phase Output Configurations Available
- Offers 50°C rating without derating UPS output
- Input friendly, low reflected harmonic content
- 5 Year Warranty

FIRSTLINE PLT

10 - 60 KVA

- 208VAC
- Available in 208 & 480 Voltages
- Parallel up to 4 Units
- Compact & Reliable



UNINTERRUPTIBLE POWER SUPPLIES



FIRSTLINE PE

80 - 125 KVA

ENERGY EFFICIENT UPS

- 480VAC
- Unity Power Factor
- > 96.5% Efficiency
- Up to 99% Efficiency in ECO Mode
- Lower initial cost and heat output
- 50/60 Hz Switching Capability
- 4 Year Warranty

FIRSTLINE P

65 - 500 KVA

- 480VAC
- Available in 208 & 480 Voltages
- Up to 98% Efficiency in ECO Mode
- Reliable
- Flexible
- Compact

ALSO AVAILABLE
Precision Power Conditioner
and Frequency Converter models



PARALLELABLE | DOUBLE-CONVERSION | ON-LINE UPS | 100% LED COMPATIBLE

Our UL-924 Emergency Lighting products offer a wide range of applications from single phase to small and medium 3 phase markets. These products can be configured for always on or always off applications, supplying energy for the emergency lighting during critical moments. Each product can be configured as a standard UL-924 or as an UL-924 CUST product providing energy for 90 minutes or as desired by the end user.

UNISTAR SCLI924

350W - 21 KW
SINGLE-PHASE

- Advanced Circuitry and Battery Protection
- High AC to AC Efficiency



MODEL "EX"

MODEL "E"

MODEL "S"



FIRSTLINE PLT 924

9 - 54 KW
THREE-PHASE

- Advanced Circuitry and Battery Protection
- High AC to AC Efficiency
- User-Friendly Mimic Panel
- Available in 208 & 480 Voltages

FIRSTLINE P 924

58.5 - 225 KW
THREE-PHASE

- Advanced Circuitry and Battery Protection
- Cost Effective, High Reliability Design
- Supports all connected lighting loads
- Monitoring and Communications
- Available in 208 & 480 Voltages
- Customizable Battery Times





POWER CONDITIONERS & FREQUENCY CONVERTERS

THREE PHASE | ELECTRONIC PRECISION POWER CONDITIONER | PARALLELABLE

The FirstLine PPC/FC Series represents the latest in continuous voltage correction and conditioning technology providing the clean, regulated precision power for all your sensitive loads. These products protect your application from sags and surges that would normally damage your expensive devices. The Frequency Converters can be used for export product testing or operation of equipment rated at international frequency and voltage. In the event of a power failure, the unit can be equipped with an optional battery cabinet to ride through a limited outage.

FIRSTLINE PPC PRECISION POWER CONDITIONER

208VAC 10 - 60 KVA
480VAC 65 - 500 KVA
ELECTRONIC

- $\pm 2\%$ voltage regulation
- UL Listed
- Clean regenerated output voltage waveform

FIRSTLINE FC FREQUENCY CONVERTER

208VAC 10 - 60 KVA
480VAC 52 - 400 KVA
SOLID STATE

- 60/50Hz Conversion
- $\pm 2\%$ voltage regulation
- UL Listed
- Clean regenerated output voltage waveform



THREE-PHASE | OPTIONAL FILTER

Staco Energy Products offers a wide range of StacoVAR Power Factor Correction systems in the form of fixed capacitor banks, PF & PFH Series or switched capacitor banks, PM, PA & PH Series, depending on the client's needs. The StacoVAR can be deployed to reduce the high energy cost associated with utility power factor penalties and oversizing infrastructure devices due to poor lagging power factors. These products can be configured to mitigate harmonic content using detuned reactance to protect the capacitors from the harmful effects of high harmonic content circuits.

PF / PFH

208 - 600VAC | 2,400 - 34,500VAC

UP TO 2400 KVAR

FIXED CAPACITORS

- User-Friendly Mimic Panel
- NEMA 1, 3R, 12 enclosures

PM / PA / PH

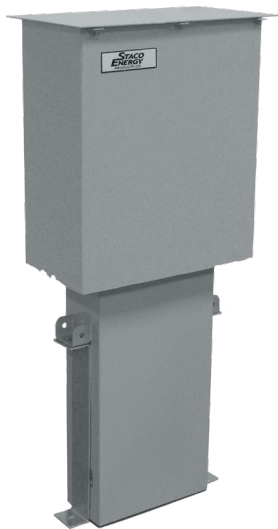
208 - 600VAC | UP TO 2400 KVAR

SWITCHED CAPACITORS

- Microprocessor based controller
- Heavy duty capacitors
- User-Friendly Mimic Panel
- NEMA 1, 3R, 12 enclosures



LV SWITCHED



MV FIXED



MINI



FIXED UNIT

ALSO AVAILABLE

Medium Voltage
2,400 - 34,500VAC

THREE-PHASE | IEEE 519 STANDARD

Staco Energy Products offers a wide range of Active Harmonic Filters that can be configured to eliminate a broad spectrum of harmonics on a distribution circuit or configured to target specific harmonics as defined by a power quality study. The StacoSine Plus Series is specifically designed to be integrated into motor control centers or other load centers to reduce the effect of VFDs, motors and other high harmonic content loads. The product can be configured for low voltage applications as well as some medium voltage applications.

WALL MOUNT & FREESTANDING

208 - 480VAC | 25 - 300 AMPS

PARALLELABLE UP TO 1200 AMPS

- Sub-cycle Response
- Eliminates 2nd through 51st harmonics
- Paralleable for additional capacity
- Temperature roll back
- Variable Power Factor and Harmonic Current control



**TOUCH SCREEN LCD
DISPLAY PANEL**



Staco Energy Products offers a wide range of Voltage Regulators and Power Conditioners in the form of Variable Transformer (StacoAVR) and Electronic (FirstLine PFC) Technology, depending on the client's needs. These voltage regulators are designed with maximum safety, ease of installation and efficiency in mind. They are continuously rated constant output voltage devices, regardless of typical input voltage variations from +10% to -20%. They're applied to provide stabilized voltage to industrial, commercial and public infrastructure applications where devices need continuous stable electrical supply. Examples include: Reducing voltage to large HVAC systems to reduce high energy cost, or stabilizing the incoming power to a large production facility so equipment operates efficiently, or supplying precise voltage to a single piece of equipment like medical MRI, production CNC, or broadcast Transmitters.

MODULAR POWER CONDITIONING SYSTEM VOLTAGE REGULATION

- 120-600VAC, up to 2000kVA
- 1% or better Continuous Voltage Regulation
- 97-99% Efficient
- Flexible Design



THREE-PHASE | RUGGED | HIGH OVERLOAD | NO SINE WAVE DISTORTION

The StacoPPS Series are engineered turnkey solutions for AC voltage control used in the testing of electrical products. Our PPS units provide precise voltage control for any basic or sophisticated test laboratory needs in Production, Quality, or R&D labs. Examples include: Quality assurance labs, circuit breaker testing, HVAC, motor test, VFD, compressor, white goods, and product life cycle testing.

PROVIDER POWER SYSTEM TEST SETS

**0-1000 VAC | 0-4000 AMPS
UP TO 3500 KVA**

- Precise, accurate voltages available making the PPS design is flexible enough for any electrical testing application
- Fully customizable from standard products
- Robust, rugged design for years of trouble free service
- Designed to be easy to use and very operator friendly



OUR CUSTOMERS

STACO ENERGY PRODUCTS HAS HAD THE PRIVILEGE OF SERVING SOME OF THE FINEST COMPANIES IN THE WORLD. WE ARE PROUD OF THE RELATIONSHIPS WE'VE BUILT WITH THESE COMPANIES, AND WITH ALL OF OUR CUSTOMERS.

3M Corporation
AACN Heating & Cooling Products
A.O. Smith Corp.
Abbott Laboratories
Acrodyne Communications, Inc.
Amdahl (A Fujitsu Company)
Analog Devices, Inc.
AT&T Technologies
AVO International
BASF Corporation
Bethlehem Steel Corp.
Boeing Company
Boise Cascade Corp.
Bridgestone/Firestone
Broadcast Electronics, Inc.
Broward Yachts
Campbell Soup Company
Canon Business Machines
Carrier Corporation
CBS
CitiGroup, Inc.
CNN
Compaq Computer Corporation
COX Cable
Cutler-Hammer (Eaton)
DuPont
EDS (Electronic Data Systems)
Eli Lilly Company
ESPN
Exxon Mobil Corporation

FAA (Federal Aviation Administration)
Ford Motor Company
FOX-TV
General Dynamics Corporation
General Electric Co.
General Motors Corp.
Harris Corporation
Hobart Corporation
Honeywell Corporation
IBM Corporation
Illinois Tool Works Inc. (ITW)
Intel Corporation
Juno Lighting, Inc.
Kimberly-Clark Corp.
LeBlanc, Ltd.
Lockheed Martin
Lucent Technologies
Metro-Goldwyn-Mayer, Inc. (MGM)
MagneTek, Inc.
Marine Drilling Companies, Inc.
Maytag Corporation
McBride Electric
McDonald's Corporation
McKesson Corp.
McQuay International
Mobilized Systems, Inc.
Monsanto Company
Motorola, Inc.
NASA
NBC
NCR Corporation

Nautel, Ltd.
Newport News Shipbuilding
NOAA (National Oceanic & Atmospheric Administration)
Pacific Gas & Electric Company
PepsiCo
Pfizer, Inc.
Philips Medical
Procter & Gamble Co.
Paytheon Company
Pheem Manufacturing Co.
Richardson Electronics, Ltd.
Rockwell Automation
Shell Oil Co.
Siemens Energy & Automation, Inc.
Texas Instruments, Inc.
Toshiba Corporation
The Trane Co.
(American Standard Companies)
Transocean Sedco Forex
Tyco Electronics Corp.
Union Carbide Corp.
Universal City Studios
USX Corp. (Marathon Oil Co.)
Verizon Communications
Walt Disney
Walgreens Co.
Wards Marine Electric, Inc.
Wells Fargo & Company
Westinghouse Electric Company, LLC,
part of the BNFL Group
Weyerhaeuser Company
Whirlpool Corporation
Xerox Corporation
York International Corp.
Zenith Electronics Corp.



“WE WENT WITH STACO BECAUSE THE TEST STANDS HAD THE CAPABILITY WE NEEDED, THE PRODUCTS HAVE A GOOD REPUTATION IN THE INDUSTRY, AND A STRONG PERSONAL RELATIONSHIP.”

Hunter Mattocks, Director of Operations Development
AACN Heating & Cooling Products

STACO SERVICE

FIELD SERVICE PROGRAM

Staco specializes in providing choice and flexibility by developing tailored solutions for preventive and remedial maintenance services, as well as emergency repairs for all of our products. **Staco Service** is built upon a nationwide network of highly trained and motivated customer support engineers and technicians who can provide professional services and care throughout the life of your equipment.

- **Start-Ups**
- **Preventive Maintenance**
- **Spare Parts**
- **Battery Analysis/Refresh/Replacement**
- **On-Site Training**
- **Time & Material Services**



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