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Power You Can Count On

Staco's Latest FirstLine P UPS Is Built For Reliability, Performance & Efficiency

WITH 75 YEARS of experience manufacturing uninterruptible power supplies, voltage control, VAR compensation, and other power-related products, Staco Energy Products could take a breather and bask in past accomplishments. Instead, the Dayton, Ohio,-based company has reaffirmed its commitment to its customers, as indicated by the "A New Dawn" company logo Staco created for the 75th anniversary. More than a logo, "[A New Dawn] signifies our commitment to providing our customers with forward-thinking solutions to power-quality problems," says James Hall, marketing manager at Staco Energy Products (www.stacoenergy.com).

An example of such thinking is the company's new FirstLine P 480VAC Three-Phase On-Line Double Conversion UPS for 160, 200, and 250kVA applications, the final addition to Staco Energy's Total SMB Power Solutions product and service family. That family includes a UniStar line of single-phase UPS models (1 to 10kVA applications); FirstLine P and PL three-phase UPS lines (now covering 10 to 250kVA applications); FirstLine BMS proactive wireless battery monitor system; and ServiStar nationwide support programs, which Staco Energy tailors to specific data center needs.

Power Play

Expected for an early April release complete with full two-year warranty, the FirstLine P 160/200/250kVA includes the same compact size and reliability features of previous FirstLine P units. Ideal for computer rooms, network closets, data centers, and other applications necessitating a high level of available power, the unit is up to 98% efficient, helping enterprises reduce their TCO and cut energy bills.

Usage-wise, FirstLine P units can tackle applications with 480VAC of input voltage (+15/-20% without battery contribution; +15/-30% when in battery mode). Input frequency measures 45 to 65Hz, and IT can



FIRSTLINE® P

run up to eight FirstLine P units in parallel without extra hardware, as well as configure the unit's progressive rectifier (walk-in) from 0 to 30 seconds and progressive start of the rectifier (power walk-in delay timer) from 0 to 120 seconds. Further, FirstLine P units are compatible with capacitive loads, such as blade servers, without requiring a reduction in active power.

Other features include high-performance filtering, which safeguards upstream power supply sources from harmonics and reactive power stemming from the powered

load. Isolation transformer, synchronizer device, parallel systems joiner device, interface for generator set, and closed loop kit options enable the FirstLine P 160/200/250kVA to be tailored to meet specific requirements. Additionally, an output transformer with galvanic isolation between the load and battery supply translates to enhanced installation options, while dual input support means the unit can obtain power from two separate sources (main and second emergency standby source) to enhance the resilience of single and parallel system configurations.

To enable the unit's double-conversion abilities, Staco Energy implements IGBT and DSP (Digital Signal Processor) control that allows for delivering a 0.99 input power factor and input current distortion measuring 3% or less. "The UPS is extremely quiet thanks to the IGBT front-end, as well as the inverter," Hall says. "The noise level, even in the electrical closet, is minimal." Overall, IGBT-based rectifier solid-state technology "reduces the impact of the UPS on the local supply and simplifies installation where there is limited power capacity in the form of available electrical supply rating or generator size," Hall says.

A View Inside

In addition to alarm, emergency power off, and LED indicators (Bypass, Main Line, Battery Powering The Load, Load On Bypass, and Normal Output), the FirstLine P 160/200/250kVA

sports a front-mounted, backlit display that IT should be able to navigate without difficulty within two or three minutes, Hall says. The display provides accurate readings of all UPS functions and enables full programmable inputs for the battery charger.

Front, top, or bottom access granted via a single-hinged door means enterprises can situate the FirstLine P 160/200/250kVA against a wall to save space. Omitting a "dead front panel," Hall says, enables easy access to all components, including cards, capacitors, fans, CTs, etc. "Having the

capacitors and contactors located on the second shelf, as well as the majority of the PC cards (others are conveniently placed on the internal door), makes troubleshooting a dream," he says. "There is no access from the rear, nor is any needed."

Other design touches include input lugs on the cabinet's lower one-third that are readily identifiable. "It's readily apparent to the electrician which phase is which," Hall says. Additionally, a staggered approach allows for easier terminations of the input feed to the lugs, as well as the ability to make parallel feeds easier to connect, Hall says. "The DC polarities are readily identified and markings are easy to see," Hall says. "Circuit breakers and switches are located on the front lower panel, a welcome relief to other manufacturers who have done away with these items."

At Your Service

Another benefit of the unit's design is that it makes servicing so much easier, Hall says. "The service engineer can control various portions of the UPS operations via breakers and switches without the need to interface to a laptop," Hall says, adding that the unit's shallow depth makes reaching the rear for repairs easy. "All wiring is neat without wires running helter-skelter over other components in the cabinetry as with many other UPS currently on the market," he says. "This is a strong indication the factory has taken the extra step to produce a quality product." ■

STACO ENERGY PRODUCTS
FIRSTLINE P 480VAC
THREE-PHASE ON-LINE
DOUBLE CONVERSION UPS

(866) 261-1191
www.stacoenergy.com

An on-line, double-conversion UPS designed for 160, 200, and 250kVA applications that provides enterprises with efficient, reliable power.

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