



YOUR AC & DC POWER RESOURCE

NEW PRODUCTS FOR 2009

NEW PRODUCTS:

- APC SYMMETRA PX 250/500kW
- LA MARCHE A75R RAILROAD
- LA MARCHE A75A /AE & A75D/DE UTILITY BATTERY CHARGERS
- LA MARCHE ESCR ENGINE START BATTERY CHARGER
- SAFT TEL.X NI-CD BATTERIES
- RH SERIES BATTERY TESTERS
- PDI WAVESTAR POWERHUB
- PDI WAVESTAR RPP SERIES
- PDI POWERCUBE TRANSFORMERS
- PDI MEDIUM VOLTAGE TRANSFORMERS & MAGENTICS
- PDI J-COMM BCMS
- SCHAFFNER ECOSINE PASSIVE HARMONIC FILTERS
- SCHAFFNER ECOSINE ACTIVE HARMONIC FILTERS

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APC SYMMETRA PX 250 / 500kW

Right sized, modular, scalable, 3-phase power protection with industry leading availability, efficiency and performance for any size data center or high density power zone



The APC Symmetra PX 250/500kW is a world class, redundant, scalable, ultra-high efficient power protection system designed to cost effectively provide high levels of availability. Seamlessly integrating into today's state-of-the-art data center designs, the Symmetra PX250/500kW is a true modular system. Made up of dedicated and redundant hot swappable modules - power, intelligence, battery and bypass, all engineered into a design that is easily and efficiently serviceable, this architecture can scale power and runtime as demand grows or as higher levels of availability are required.

LONG LIFE BATTERY MODULE

Connected in parallel for increased availability the 5-8yr expected life reduces systems lifetime costs (TCO)

PREMIUM LINE-UP / REMOTE EXTERNAL BATTERY ENCLOSURE

A total of 8 enclosures can be connected to the UPS either in-row or remotely allowing the UPS to be configured to your data center requirements, while offering extended runtimes & availability

REDUNDANT INTELLIGENCE MODULE

Back-up for the main intelligence module provides increased availability

DUAL MAINS INPUT / OUTPUT

Allows for connection to 2 separate power inputs for increased availability - top or bottom

HIGH DENSITY FOOTPRINT

Space saving & more flexibility on where you place the UPS

BUILT-IN STATIC BYPASS SWITCH

Hot swappable, the SSW enables the UPS to transfer the load to utility power, w/o interruption, in case of heavy load or faulty conditions

ULTRA-HIGH EFFICIENCY (96%) POWER MODULE DOWN TO 35% LOADING

Provides the flexibility to scale power capacity in 25kW increments and adds N+1 capability as well as a fully rated double conversion inverter for providing more real power

MAINTENANCE BYPASS WITH DISTRIBUTION

Space saving design that provides power distribution to your load and if required isolation from UPS while maintaining power to critical loads

10" LCD TOUCH SCREEN DISPLAY

Offers a clear graphical / text based overview of alarms, status data, and instructional help that minimizes the risk of operator errors

SYSTEM WIDE FIRMWARE UPDATES

On-the-fly upgrades via USB port on back of display. Makes firmware updates easy and increases system availability



THE APC SYMMETRA PX IS SCALABLE FROM 25kW TO 500kW

LA MARCHÉ A75R SERIES RAILROAD BATTERY CHARGERS



A75R-30-24V-AB1
A75R-40-12V-AB1
A75R-20-12V-AB1

The La Marche A75R series uses proven Silicon Controlled Rectifier (SCR) charging technology and is developed specifically for the railroad market. It's typically used for signaling, highway crossing and motion detection systems where the battery is cycled frequently.

The A75R is a completely automatic, solid state and constant voltage battery charger that will sense the battery condition and deliver the appropriate output recharge current. This filtered unit is designed and built to charge VRLA, Flooded Lead Acid and Nickel Cadmium batteries.

The A75R has better than 1% regulation from no to full load over the specified input voltage, frequency and ambient temperature range. These chargers can be powered with 120 or 240 VAC without changing taps. The front panel controls allows the operator to manually select the number of cells and fine tune the charging voltage. LED's are provided to indicate the alarms, charger status and battery type.

STANDARD FEATURES

- Microprocessor Controlled (SCR) Charging Technology
- Lightning Protection
- Single Phase AC Input 120 / 240V, 60Hz
- Automatic AC Input Voltage Compensation $\pm 10\%$
- Filtered Output
- Remote Shutdown
- Adjustable Current Limit from 50% to 105%
- Complete Isolation from AC to DC
- Temperature Compensation with Enable/Disable Switch
- AAR Style Hardware on Input & Output Terminals
- Meets AREMA Specifications
- Meets ANSI C62-41
- Form 'C' Contact for Charger Failure
- LED Indicators
 - Current Limit
 - Temperature Compensation Disable
 - AC ON
 - Nickel Cadmium
 - Lead Acid
 - Charger Fail
- DC Analog Ammeter and Digital Voltmeter
- 3 Year Warranty

WHAT MAKES THE LA MARCHÉ A75R DIFFERENT?



TRANSFORMER

The transformer in the A75R is constructed with Class H insulation which can handle extreme temperatures up to 180°C. This increases the reliability and longevity of the product which allows La Marche to offer an unmatched 3 year warranty. Currently competitive units use Class F insulation.

BENEFIT = LONGEVITY



SCR CONTROL

The A75R meets IEEE 587 standards for transient protection. The charger has built-in protection from transients induced by lightning strikes or switching transients. Units were subjected to Keytek tests of 5000V / 3000 amps to verify their surge capability. Design changes were made to incorporate MOV and zener protection on all circuit board and power supplies.

BENEFIT = RELIABILITY



ALARM MONITOR

Both the analog amp meter and digital volt meter are within 1% accurate. The front panel dip-switch allows the operator to manually select the # of cells. LED's are provided to indicate the alarms, charger status and battery type.

BENEFIT = FEATURE RICH

OPTIONAL

- External Temperature Compensation Probe



Quality & Reliability Since 1945

LA MARCHE A75A/AE & A75D/DE UTILITY BATTERY CHARGERS



The La Marche A75 series battery chargers are engineered for the demanding requirements of utility switchgear, gas transmission, process control, and oil exploration.

The A75 series is a solid state unit utilizing Silicon Controlled Rectifier (SCR) technology, a technology that La Marche has designed and manufactured for over 25 years. It has $\pm 0.5\%$ regulation from no load to full load over the specified input voltage, frequency and ambient temperature range.

The A75 series is designed for dependable operation in harsh environments at temperatures up to 122°F (50°C). The unit is convection cooled and the components are designed to achieve MTBF in excess of 100,000 hours.

A75A	Analog Metering Unfiltered
A75AE	Analog Metering with Battery Eliminator
A75D	Digital Metering Unfiltered
A75DE	Digital Metering with Battery Eliminator

A75 BASIC FEATURES

- Multi-Tap Input 120/208/240 VAC on units up to 25 amp output
- Output: 24V, 48V, 130 VDC
- DC Volt & Amp Meter
- Float/Equalize mode switch w/LED indication
- Individual Float/Equalize adjustments
- AC Input & DC Output protection with surge suppression
- Temperature Compensation
- NEMA 1 Enclosure
- 2 Year Warranty



A75A/AE

A75A/AE FEATURES

- Analog DC Volt & Amp Meter
- AC Input & DC Output fusing with Surge Protection
- AC Failure Relay

OPTIONAL ACCESSORIES

- AC and DC Breakers
- Low / High Voltage Alarm w/Contacts
- Electronic Equalize Timer
- Ground Detection Relays
- Ground Detection Lights
- External Temperature Probe
- Heat Shrink Wire Markers
- ID Tags



A75D/DE

A75D/DE FEATURES

- LCD Display w/two-line text
- Digital DC Volt & Amp Meter
- AC Input & DC Output Breakers with Surge Protection
- AC "On" LED
- AC Failure LED and Relay
- Summary Alarm and Relay

OPTIONAL ACCESSORIES

- High Interrupting Breakers
- Discrete Alarms Relays
- External Temperature Probe
- Heat Shrink Wire Markers
- ID Tags

LA MARCHE ESCR ENGINE START BATTERY CHARGERS

The La Marche ESCR engine start battery charger product line utilizes microprocessor controlled Silicon Controlled Rectifier (SCR) charging technology, a technology known for being both reliable and economical. The ESCR has been introduced to meet the demands of a marketplace that is calling for smaller, cheaper and more flexible engine start battery chargers. The ESCR is equipped with PWM control which provides the highest reliability that is required for maintaining and recharging engine start batteries for generator sets. The ESCR is suitable for various types of batteries such as flooded lead-acid, VRLA, and Ni-Cads.

The ESCR features automatic input sensing for 120/208-240 VAC 50/60Hz which does not require any tap changes and the multi-output (12V/24V) makes this product line flexible and convenient for multiple jobs. The $\pm 0.5\%$ regulation, temperature compensation, battery check, equalize timer along with adjustable output voltage and current limiting assures longevity and performance of your batteries. The front panel is equipped with LCD display, alarm status LED's, and controls. The two-line LCD displays output voltage and current along with alarm status text description. Individual LED indicators provide local supervision. Form 'C' contacts are available for remote annunciation. Push button controls are used for Float/Equalize mode, Reset, Lamp Test, and Configure. This multi-input/output all-in-one unit meets NFPA 110, C62.41A and UL safety requirements.

WHY IS THE ESCR UNIQUE?

ADJUSTABLE FRONT PANEL SETTINGS	Settings such as Float and Equalize Voltage, Alarms and Time Delay can be adjusted via the front panel, eliminating the need to remove cover to make adjustments
AUTO SENSING AC INPUT	Doesn't require any manual tap changes; rather it automatically senses the input for 120/208-240 VAC
500MV RIPPLE VRLA FILTERING	Improves VRLA battery life and is more compatible with microprocessor-based loads
$\pm 1\%$ METERING	Allows more accurate settings to improve battery performance, life and maintenance
MULTI-MODE EQUALIZE TIMER	Helps to make equalizing more flexible and assures longevity and performance of your batteries
CLASS H TRANSFORMER	Can handle extreme temperatures up to 180°C which increases reliability and longevity
NFPA 110 STANDARD	Meets the requirements of NFPA 110
STARTS & HOLDS LOADS	Battery doesn't need to be hooked up to charger to start and power a load
ADJUSTABLE CURRENT LIMIT	Reduces power demand if necessary to prevent nuisance breaker tripping on power restoration
UL 1236	Pending UL 1236 listing



Front Panel LCD Display

STANDARD FEATURES

- Microprocessor Controlled SCR Technology
- Auto Select Input 120/208-240 VAC, 50/60Hz
- Field Selectable Output 12/24 VDC
- LCD Display
- Alarm LED's and Form 'C' Contacts
- Adjustable Float & Equalize Voltages
- Automatic AC Input Voltage Compensation
- AC to DC Isolation
- Filtering Suitable for VRLA Batteries
- Battery Fault Detection
- Internal Temperature Compensation
- Equalize Timer
- Anodized Aluminum Case
- Soft Start
- Battery Fault Check
- Meets NFPA 110 and C62.41A
- 3 Year Warranty

OPTIONAL

- External Temperature Compensation Probe

SAFT TEL.X NI-CD BATTERIES

The Saft Tel.X is a high-energy, long-life, maintenance-free Ni-Cd battery designed to ensure maximum reliability and minimum Total Cost of Ownership (TCO). The Tel.X performs over a very wide temperature range and in uncontrolled environments with no need for water replenishment. The Tel.X is compact, modular and compatible with existing telecom equipment. The Tel.X is ideally suited for applications including cabinets and end terminals in fiber-optic networks offering triple-play services as well as BTS (Base Transceiver Station) and BSC (Base Station Controller) installations in wireless networks. The Tel.X represents a simple and direct replacement for troublesome VRLA batteries, and promises total reliability. Unlike VRLA, the Tel.X's robust well-proven Ni-Cd construction and engineered electrolyte will not degrade, cannot suffer from sudden death, and will continue to efficiently operate in harsh conditions.



FEATURES & BENEFITS

LONG LIFE	More than 14 years at +40°C (+104°F). At lower operating temperatures and in normal operating conditions, life expectancy can extend beyond 20 years.
WIDE OPERATING RANGE	Available from 75Ah to 170Ah in modular construction to suit your capacity needs.
MAINTENANCE-FREE	Topping up is not required during the life of the battery.
HIGH ENERGY DENSITY	Designed in a compact, modular format that averages 30% less weight than a comparable VRLA battery. It offers high energy in lower volume, permitting fast, simple and direct replacement of VRLA's with regard to available space and charging requirements.
EASY INSTALLATION	Simple modular design allows for easy installation into cabinets; well adapted 19" and 23" racks.
TEMPERATURE RESISTENT	Operating from -20°C to +50°C (-4°F to +122°F) and from -50°C to + 70°C (-58°F to +158°F) for short durations.
NO ACTIVE COOLING REQUIRED	No active cooling required even in harsh environments.
COMPATIBLE W/EXISTING EQUIPMENT	Temperature compensated voltage from rectifier is not required.
STABLE PERFORMANCE	Construction and engineered electrolyte will not degrade, and cannot suffer from sudden death.
RELIABILITY	Robust construction and Nickel Cadmium's unique electrochemistry assure operation with total peace of mind.
SAFETY & PERFORMANCE	Qualified to NEBS Level III, the highest safety and functional stds. from Telcordia, and is designed to meet the environmental requirements of GR-3108, perf. requirements of GR-3020 and IEC 60623



Tel.X represents a simple and direct replacement for troublesome VRLA batteries

RH SERIES PORTABLE BATTERY CAPACITY TESTERS

RedHawk Energy Systems, LLC and Microlynx Systems, Ltd., have teamed up to develop the RH1 and RH2 series portable battery capacity testers. Built upon the foundation of the successful M0024 series of battery testers, the RH1 and RH2 provide enhanced capabilities and features in a convenient and economical package. The RH1 and RH2 are specifically designed to provide accurate capacity measurements of batteries that are in-service as well as batteries at the shop or laboratory. Operation of the RH1 and RH2 is straightforward and allows a capacity test to be run unattended. At the end of the test, the RH1 and RH2 automatically reconnects the battery to the charger to allow recharging to start. In the event of an AC power failure during a test, the RH1 and RH2 terminates the test to allow the remaining capacity of the permanent backup battery to be used to power the protected systems.



FEATURES & BENEFITS

- | | |
|---|--|
| TRUE CAPACITY MEASUREMENT | The tester measures the time it takes to discharge the battery. This provides a true measure of the battery, regardless of battery chemistry. |
| VERSATILE | The tester can be set to discharge at either a constant current (RH1 and RH2), constant power or constant resistance rate (RH2 only) to meet the requirements of all typical applications. |
| SELF-POWERED | The tester is powered from the battery being tested and requires no connection to the AC power grid. |
| SIMPLICITY OF USE | The tester has an easy-to-use, intuitive user interface that allows all parameters to be set as required. The parameters are stored in memory and the unit will power up to the same state as it was last used. |
| WIDE OPERATING RANGE | Both testers can be used with a wide range of battery voltages and chemistries. Each tester automatically adjusts the battery voltage within the operating range of the model. |
| AUTOMATIC OPERATION | The tester automatically finishes the test when the battery voltage has reached a preset absolute voltage or percentage of the initial discharge voltage. The battery is then reconnected to the charger to allow it to be recharged. |
| CONTINUOUS PROTECTION | The tester allows a temporary battery to be connected to the charging system to provide protection while a test is in progress. |
| FAILSAFE | The tester uses a normally-closed electro-mechanical relay to interrupt the current path between the battery and charger. In the event of a failure of the tester, the relay defaults to connect the permanent battery to the charger. The load path is fused to protect the system in the event of a short circuit in the tester. |
| ACCURATE | The tester uses active feedback control loop to control the discharge current. Each tester is calibrated to provide a measurement accuracy of better than 1%. |
| MEMORY BACKUP & DATA LOGGING | The tester stores all operating parameters in memory and records the discharge current, battery voltages, charger voltages and heat-sink temperature in internal memory or removable SD card. |
| RUGGED & DURABLE | The tester is packaged in a compact, durable aluminum case designed to withstand the rigors of field use. Its integrated carrying handle makes transporting the tester easy. |

PDI WAVESTAR POWERHUB PDU 400 - 750kVA

The PDI Wavestar PowerHub Power Distribution System provides the highest available power density of any PDU. PDI's award winning PDIq intelligent monitoring system is standard with these units; this system integrates the proven PDU monitoring with PDI's patented Branch Circuit Monitoring System and allows precise load control and management.



HIGHLIGHTS

SPACE SAVINGS

The Wavestar PowerHub uses a high power high efficiency transformer in place of the many smaller lower power transformers found on legacy PDUs, often resulting in a space savings of 20-50%.

LOWER ENERGY COSTS

PDI's best-in-class ultra-high efficiency, eco-friendly transformers yield significant energy savings, substantially lowering data center operating costs.

SCALABILITY

The Wavestar PowerHub PDU is the smart way to add scalability to your critical environment. The internal distribution system allows the data center manager to easily add distribution as servers are added to the site, resulting in a better return on investment.

INTELLIGENT MONITORING

The PDIq system increases the visibility of the actual loads on the raised floor which gives the data center manager a better decision making tool at their fingertips. PDIq (Power Distribution Intelligence Quotient) equals the ability to make better decisions based upon real time reporting of load / capacity data

CUSTOMIZED SOLUTIONS FOR YOUR OPERATION

Versatile product, coupled with advanced engineering expertise, delivers the best performing platform for your critical applications.

ELECTRICAL SPECIFICATIONS

TRANSFORMER KVA:

400, 500, 625, 750 kVA

INPUT VOLTAGE:

480 VAC, 600 VAC 3-phase, 3 wire plus ground, 60Hz

OUTPUT VOLTAGE:

208-120 @ 60Hz (240 VAC available) 3-phase, 4 wire plus ground, 60Hz

OUTPUT CIRCUIT BREAKERS:

225AF / 100-225 AT (x 14 max.)
400 AF / 400 AT (x 8 max.)
600 AF / 500-600 AT (x 8 max.)

NEUTRAL BUS:

200% rated

TRANSFORMER TYPE:

Data Center Grade; Delta-Wye Isolation

TRANSFORMER SPECS:

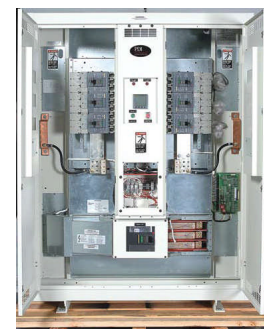
K-rated; 150°C rise; copper wound (A1 windings available)
NEMA TP-1 efficiency

INPUT CURRENT: (A @ 480VAC)

400kVA (481); 500kVA (602)
625kVA (753); 750kVA (903)



Front



Inside

PDI WAVESTAR RPP SERIES

MORE POWER IN LESS SPACE

PDI's Wavestar Remote Power Panel (RPP) helps you win "the race for space and power" by providing the added pole "space" in a variety of "power" set ups to meet your distribution needs in a small footprint. PDI offers the most options available in free-standing 2' x 2' distribution or server-sized enclosures. While your current PDUs may be able to handle the power demands of your facility, they may not have room for future expansion. With PDI's Wavestar RPP, you can drive for more power in less space.

These RPP's allow you to effectively use all of your existing capacity before investing in additional distribution. The RPP can pack in dual feeds, up to 168 breakers, and Branch Circuit Monitoring with local monitoring in the 2' x 2' floor tile. The RPP is fed by any standard subfeed circuit breaker of a PDU or 208V distribution board. PDI also offers the choice of Mission Critical Dual Source RPP - 225 or 400 amp modular rack mount unit to fit any 19" cabinet, the server line rack RPP in either 208V or 480V, and the server line RPP from 15-150kVA with a custom transformer.

INTELLIGENT MONITORING

The PDIq (Power Distribution Intelligence Quotient) gives you the ability to make better decisions based upon real time reporting of load / capacity data. By adding the Wavestar monitor to your RPP, you can view linked devices and keep better control of your data center floor loads.

FLEXIBLE PACKAGING

Designed in an aesthetically pleasing cabinet to match the high-tech look of today's computer centers, the RPP's flexible configuration options allow it to grow with your facility. The RPP can function as a stand alone device or as part of an extensive distribution system. You can choose a single input device or dual power feeds to satisfy system redundancy and maintenance requirements. All RPP designs can be packaged to allow for system expansion without interruption to your loads. Each unit can be equipped with any custom monitoring package you require for your system.

ASSURED PERFORMANCE

PDI's complete line of PowerPak technology has long delivered superior performance and protection for your computer systems and equipment. With options now available for PDI RPP's, you can match your 15-300kVA PowerPak and 225-750kVA PowerHub power distribution units with the best solution for your data center. The expanded RPP line allows for flexible expansion of your computer room and reflects PDI's many years of experience in the power quality and distribution industry.

PDI SERVICE & SUPPORT

PDI offers 24/7 support on equipment after it has been installed. PDI has the industry's best sales and service team that will stay with you from the design of your system through the life of your data center.

PDI

creating the perfect wave



SIMPLIFIED EXPANSION W/ CUSTOMIZED OPTIONS

- Reduces the length of cable running between your PDU and the individual loads
- Optimizes usable floor space
- Simplifies server consolidation plans
- Meets the growth demands of dual cord equipment
- Retrofits to any existing distribution system
- Minimizes your investment risk today by allowing for incremental expansion of your future facility
- Unobstructed wiring access for ease of installation

PDI POWERCUBE TRANSFORMER

INDUSTRY'S TRUSTED CHOICE

As the pioneer of critical power distribution technology, PDI leads the way with proven solutions when it comes to high efficiency transformers. Backed by three modern U.S. manufacturing facilities, a staff of over 300 dedicated people, and 30 years of industry experience, PDI has one of the largest installed bases of high efficiency transformers among any power quality provider.

LOWER OPERATING COSTS

PDI's advanced technology high efficiency transformers are designed to deliver optimal high efficiency for lower operating costs. Exceeding national efficiency standards (NEMA TP-1), PowerCube transformers deliver true energy savings under both linear and non-linear loads.

SYSTEM MONITORING

The award winning Wavestar monitoring system with PDIq provides real time energy and power quality information at a glance. All monitors are equipped with universal communications ports for easy interface with building management systems.

MAINTAINABILITY

An available hinged front port provides a quick and easy way to access all power connections, while optimal infrared transparent windows allow for safe routine thermal scanning without opening the interior doors.

REDUCING THE FOOTPRINT

PDI's high efficiency transformers are designed to provide years of reduced costs, reduced energy consumption, and therefore reduced impact on the environment. Additionally, its eco-friendly design and manufacturing process strives to maximize recycling methods for sustainability.

TESTED & VERIFIED TO NATIONAL STANDARDS

To verify performance of actual efficiency, all PDI energy efficient transformers are tested to a nationally recognized method using third party verified equipment. All transformers are provided with a serialized test data sheet to validate performance and ensure that customers get the efficiency they pay for.

BETTER BY DESIGN

PDI PowerCube transformers use a 240°C thermal shielding between windings to deliver an extra margin of safety and extend operating life. Welded tap connections and large flat bus termination points also eliminate "hot spots" found in most other manufacturer's transformers.

APPLICATIONS

The PowerCube represents an optimal solution for: data centers, K-12 colleges, universities, government, healthcare, industrial and commercial buildings where lower operating costs, energy savings and the environment are a priority.

PDI

creating the perfect wave

POWERCUBE^{hE}
HIGH EFFICIENCY



Energy Efficiency & Cost Savings

RATINGS & FEATURES

- kVA Ratings: 30 - 1000kVA
- K Factor: specifiable K1 through K30
- 6 Compensation Taps (4 FCBN, 2 FCAN)
- Input: 3-phase, 3 wire plus ground
- Input Voltage: 208, 480 & 600 @ 60Hz
- Output: 3 phase, 4 wire plus ground
- Output Voltage: 120/208, 480 & 600 @ 60Hz
- Impedance: 2.0-4.5% avg \pm 0.25%
- Copper wound construction - better conducting & more resilient than aluminum
- Dual electrostatic shield - attenuates high frequency noise
- Natural convection cooling
- Operating efficiency: 98% typical
- Oversized neutral for non-linear loads
- UL Listed

PDI MEDIUM VOLTAGE TRANSFORMERS & MAGNETICS

30 YEARS OF QUALITY & LEADERSHIP

PDI has been producing high power transformers for over 30 years under the TOPAZ and new PDI brands. At the heart of the operation is the design engineering team, recognized as one of the best in the industry. This vast experience has enabled PDI to engineer reliable optimized solutions that fit your budget. PDI solutions can be found globally wherever ultra-high reliability magnetics are required.



FEATURES & BENEFITS

- Dry type transformers, inductors & reactors up to 15kV at 2MVA
- Extensive engineering staff including senior level design engineers and industry recognized experts
- Comprehensive in-house test capabilities
- High capacity state-of-the-art manufacturing facilities for fast delivery
- Vertically integrated factories with all components fabricated under one roof
- Enclosures (NEMA 1 through 3R and specialty enclosures)
- Integration of all peripheral equipment including fused disconnects, input and output circuit breakers and switch board panels
- A range of monitoring and communications solutions available with PDi*q* intelligent monitoring
- UL Listed
- Extensive track record with installed base over 15,000 high power transformers
- Industry-experienced field support team
- Spare part kits available for all units



PDI JCOMM BRANCH CIRCUIT MONITORING SYSTEM (BCMS)

PDI's JComm Branch Circuit Monitoring System is now available to monitor and integrate all your server power functions. No matter whose equipment you have, PDI's JComm BCMS brings it all together.

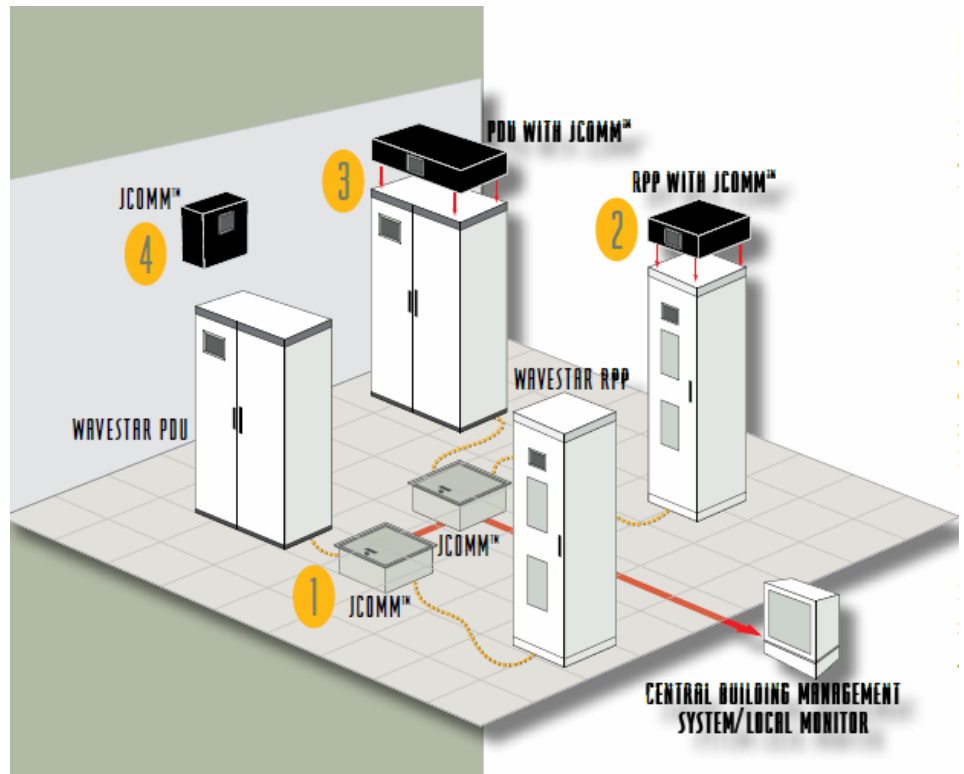


PDI can now offer four different ways to retrofit into your existing data center.
PDI's JComm BCMS:

- Avoids overloads
- Provides realtime data for managing server loads
- Keeps watch of system performance of PDUs and RPPs
- BCMS split core works with energized systems
- BCMS solid core is used on PDI equipment or can be ordered as OEM-added equipment
- A complete Wavestar STS-PDU-RPP system can effectively bring all PDI's advantages together and look at all downstream BCMS devices.

WHERE CAN YOU ADD JCOMM BCMS?

- 1 UNDER FLOOR
- 2 EXISTING RPP
- 3 EXISTING PDU
- 4 ON A WALL



WaveStar 8212 Local Monitor

WaveStar Graphics Monitor

YOU CAN ALSO GAIN CONTROL OF YOUR SYSTEM TWO OTHER WAYS -



SCHAFFNER ECOSINE PASSIVE HARMONIC FILTERS

Schaffner ECOSine Passive Harmonic Filters represent an economical solution to the challenge of load-applied harmonics mitigation in three-phase power systems. With a plug-and-play approach and more compact dimensions than comparable products, they can be quickly installed and easily commissioned. These filters increase the reliability and service life of electric installations, help utilize electric system capacity better, and are the key to meet Power Quality standards such as IEEE 519. Schaffner ECOSine filters applied to virtually any kind of power electronics with front-end six-pulse rectifiers, where harmonic current distortion needs to be reduced to defined limits.

ECOSINE PASSIVE HARMONIC FILTERS HIGHLIGHTS:

- Efficient mitigation of harmonic currents
- Compliance with IEEE 519 and other Power Quality Standards
- Increased equipment service life and system reliability in mission-critical applications
- More efficient utilization of electric system capacity (e.g. distribution transformers)
- Long-term savings in system operation and maintenance cost which support energy savings
- Fast and simple plug-and-play operation
- Very compact and lightweight filter concept
- Seamless integration with previously installed DC chokes or EMC/EMI filters

TYPICAL APPLICATIONS INCLUDE:

- Equipment with front-end six pulse rectifier
- Motor drives
- Factory automation equipment
- UPS and three-phase power supplies
- Water / wastewater treatment facilities
- Oil and gas exploration
- Heavy industry and machinery
- Self-contained systems (e.g. ships)
- Fan and pump applications
- Battery chargers
- HVAC installations
- Mission-critical applications
- Data and banking centers

The Arthur N. Ulrich Company represents Schaffner Power Quality products in Ohio, Kentucky, Southern Indiana, West Virginia, Western Pennsylvania, and Michigan (lower peninsula).



SCHAFFNER ECOSINE ACTIVE HARMONIC FILTERS

Schaffner ECOSine Active is the new generation of active harmonic filters (AHF). It reliably mitigates harmonics and compensates voltage dips as well as reactive power. This latest generation electronics enables an intelligent and adaptive compensation of harmonic currents with a response time of less than 300 microseconds. Its compact dimensions, simple installation and digital intelligence allows for a quick and straight forward integration in the most diverse applications.

ULTRA-FAST: ECOSine Active responds to disturbances in less than 300 μ s and eliminates them before they can cause damage.

SUPER-COMPACT: The smallest 30A filter is handy, small, and easy to install, and also the 300A cabinet unit provides the highest performance in the most compact package.

OPTIMIZED FOR MAINTENANCE: Its design allows central modules in the 200 to 300A industrial models to be removed in less than 15 minutes (MTTR).

SUITABLE FOR INDUSTRIAL USE: With the IP54 protection class construction, ECOSine Active is resistant to dust and other environmental influences.

NUMEROUS OPTIONS: Range covers specifications from 30 to 300A and 400 to 480V in either 3 or 4 wire technology.

ADAPTIVE: ECOSine Active compensates for individual disturbance patterns in a targeted manner and automatically adapts to changing network topologies.

ECOSINE ACTIVE 30 / 50A

The smallest ECOSine Active version is ideal for the reliable compensation up to the 50th harmonic, as well as reactive power, in a targeted manner. Thanks to its compact dimensions and low weight, this filter can be easily installed in any environment. For protection class requirements up to IP54 both wall and cabinet installation are possible. Not only space-saving, it is also economical in terms of power loss with only 1300W. With a response time of under 300 μ s in ultra-fast mode, it is also possible to optimally compensate dynamic loads. This compact filter offers convincing technical features and an excellent mechanical design. A higher power level can be easily attained by paralleling up to 5 units.

ECOSINE ACTIVE 100A

Only slightly larger and heavier than its little brother, the 100A unit can deal with twice the current. It is the perfect solution for those who need more performance right from the beginning and want to centrally connect it to their customers. The 4-wire unit allows also for compensation on the neutral conductor.

ECOSINE ACTIVE 200 / 250 / 300A

With up to 300A of compensating current, this filter remains fully capable for the highest requirements and for large production facilities. The cabinet version comes with forced air cooling, as well as liquid cooling for the power electronics with an integrated water/air heat exchanger. This is hi-tech in a compact package!



APPLICATIONS:

- Automotive industry
- Building automation
- Data and banking centers\
- Elevators
- HVAC installation
- Machines and automation
- Oil and gas exploration
- Paper plants
- Ship propulsion
- Steel industry
- Tunnel ventilation
- UPS power supplies
- VFD's
- Water/wastewater treatment
- Welding equipment
- Wind turbines



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The Arthur N. Ulrich Company is a manufacturer's representative agency specializing in high integrity products related to AC and DC power generation, control, conversion and conditioning. The company was founded in 1958, by Art Ulrich, Sr., and today is a third generation family-owned and operated business. Throughout its history the company has been active in the introduction of many types and designs of batteries, battery chargers, battery testers, uninterruptible power systems and power control systems.

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MANUFACTURERS WE REPRESENT

- **APC / MGE** - Fully integrated solutions provider for critical power and cooling services including InfraStuXure on-demand data architecture for network critical physical infrastructure.
- **Applied Energy, LLC** - Total solutions provider with a combined experience in control systems of over 50 years, they correct the power problems effecting equipment and its operation. Phaseback functions as a surge suppressor, harmonic filter and voltage regulator.
- **BTECH, Inc.** - Industry leader in on-line unattended battery monitoring systems providing the most advanced battery predictive capability on the market.
- **JCH Fuel Solutions** - The leader in automated fuel cleaning and maintenance systems. They offer the ENVIRO automated fuel cleaning, monitoring and maintenance system which exceeds the recommendations of the leading diesel engine manufacturers.
- **Kickham Boiler & Engineering Controls (VaporPhase Division)** - With literally millions of horsepower of VaporPhase heat recovery systems in operation, Engineering Controls is the proven leader in the waste heat recovery industry for cogeneration, peak shaving and total energy systems.
- **La Marche Manufacturing Company** - Offer the industry's most extensive and diverse range of products along with unsurpassed R&D and manufacturing capabilities. La Marche's product line includes: battery chargers, D.C. power supplies, inverters, converters, and telecommunication power systems.
- **Load Technology, Inc. (LOADTEC)** - Offers a full line of load banks with configurations designed to meet site requirements and budgets. LOADTEC has both permanent and portable units available for a variety of applications for emergency and standby power requirements.
- **Power Distribution, Inc. (PDI)** - Power quality leader and largest independent designer, manufacturer and service provider of mission-critical power distribution, static switching and power monitoring equipment for corporate data centers.
- **RedHawk Energy Systems, LLC** - Formed in 2004, as a manufacturing subsidiary of the Arthur N. Ulrich Company to specifically focus on alternative, renewable and advanced energy systems for critical power applications.
- **Russelectric, Inc.** - Engineering and manufacturing company focused on providing the world's finest and most dependable power control systems.
- **Saft America, Inc.** - For nearly 100 years Saft has been building its nickel cadmium batteries to uncompromising standards of performance, quality and reliability.
- **Schaffner USA** - Schaffner is an international leader in the fields of electromagnetic compatibility and power quality, supplying components that support the efficient and reliable use of electric energy.
- **Thor Systems, Inc.** - Manufactures innovative transient voltage surge suppression products for a range of different applications such as service entrances of large facilities to primary and secondary building distribution systems.