Power Quality Mitigation Equipment Vendors and Power Quality Service Providers

The purpose of this list is to assist in locating vendors for power quality mitigation equipment as well as power quality service providers. This list was composed over many years and we try to keep it up to date; however, this is not always possible. This is by no means a complete listing. Not only do vendors/manufacturers come and go; names, addresses, and phone numbers may change through time. We will attempt to keep this list as current as we have knowledge of the changes. If you find any information inaccurate or wish to be added to our list, please send an Email message to PowerQualityWeb@pge.com

PG&E makes no warranty or representation whatsoever expressed or implied:

1) With respect to the use of any information, apparatus, method, or process proposed by any vendor or consultant on this list; including merchantability and fitness for a particular application.

2) Such use does not infringe on or interfere with privately owned rights; including any party's intellectual property.

3) This list of vendors and consultants is suitable to any particular user’s circumstances.

We provide this list as a courtesy service for our customers. It is PG&E’s policy to not endorse any particular vendor or manufacturer. PG&E assumes no responsibility for any damages or other liability whatsoever (including any consequential damages, even if PG&E has been advised of the possibility of such damages) resulting from your selection or use of the names from this list or any information, apparatus, method, process or similar item proposed by anyone on this list.
ABB Control, Inc., Dynamic compensation, capacitors, harmonic filters
ACR Systems, Inc., 120 volt wall plug power monitor
Active Power, manufacturer of CleanSource flywheel, up to 500kW of DC or 900kW of AC
AEMC Instruments, current probes
Albercorp, battery monitors
Ametek Power Instruments
Amuneal Manufacturing Corporation, EMF shielding
Applied Power Technologies (APT), manufacturer’s rep, PML
Arteche PQ, Inc., PQ mitigation equipment
ASCO Power Technologies, LP, power transfer switches
ASIRobicon, VFD manufacturer
AVO International, Megger, Biddle, Multi-Amp, States, Metrosonics

B
Baker Instrument, manufacturer of motor tester/analyzers
Basler Electric, manufacturer of relays and generator controls
Bender, manufacturer of ground fault protection devices
Brill Electronics, vendor for FLUKE
Buckles-Smith, electrical equipment distributor and PQ mitigation equip.

C
Caterpillar electric power, Cat-UPS, flywheel energy storage
Chevron Energy Solutions, custom power quality and reliability
Chloride Power Protection, medium to large UPS manufacturer
Citel Incorporated, Surge Protection Devices – AC, DC, Data and Coaxial
Computer Air/Power Systems Inc. (CAPS), manufacturer’s rep
Controlled Power Co., manufacturer of rectifiers, regulators, UPS
Copper Development Association, Power Quality Primer
Cos Phi, Inc., power quality and power factor correction solutions
Cupertino Electric Inc, design/build construction, data centers, manufacturing
CURRENT Group
Cutler-Hammer, PQ hotline, breakers, capacitors, engineering
Cyberex, Inc., fast switches and regulators
D
Dahl-Beck Electric
Danfoss, manufacturer of drives, small to medium size
Data Power Monitoring Corp.
Dehn, Inc., Lightning and surge protection
Detroit Diesel Corp., a subsidiary of Daimler Chrysler AG
Dewetron, Inc., monitoring instruments
Diesel Service and Supply, Inc., new/used diesel generators
Dranetz-BMI, manufacturer of power quality/energy monitors

E
Eaton Powerware
EFI Electronics Corp., Surge Protection Devices
Electrical Equipment Sales Co., drives, capacitors, line reactors
Electrical Reliability Services, Inc., distribution testing and maintenance, an Emerson subsidiary
Electric Motor Supply, new and rebuilt motors
Electro Industries/Gauge Technology
Electrotek Concepts, a consulting engineering company, software
Emerson Control Techniques, a division of Emerson Industrial Automation
EPRI
Erico, Inc., cadwelding, lightning, SPDs and grounding devices

F
Field Management Services Corporation, EMF shields
Filter Concepts, EMI power filters
FLIR Infrared Camera Systems

G
GE/Ultravar Capacitors and Controls
GE Power Systems, motor testing
Graybar, electrical equipment distributor

H
Haefely Trench, design and manufacture high voltage electrical equipment
Hammond Power Solutions, transformers
Harger Lightning & Grounding
Harmonics Limited, LLC, harmonic suppression
Harold Wells Associates represents Russelectric
Hioki USA Corp.
Hitec Power Protection, formerly HOLEC HH, dynamic diesel UPS
I
i-Grid, incredibly low cost web-based PQ & reliability monitoring system
Industrial Electric Service Co., lumber mill motors/drives/controls
Infrared Solutions, infrared camera
IPC Power Resistors International Inc., manufacturer of high power elect. Resistors

J
JDS Products, Inc., prevents automatic restart
Katolight, diesel & gas generator sets from 15 to 2800kW
Kohler Power Systems, gas & diesel generator sets from 6 to 2000kW

L
Land Instruments International, infrared cameras
Lea International, TVSS solutions
Leviton Manufacturing Co., SPD manufacturer
LING Electronics, manufacturer of 400Hz solid state frequency converter

M
Magnetic Shield Corporation
Majorpower Corporation
McLaughlin Associates, large UPS manufacturer rep
Mechanical Analysis/Repair Inc., dba Martech
Metrosonics/AVO/Megger, manufacturer of utility recording voltmeters/power analyzers
MIRUS International, Inc.
MOORE Syndication, distributor of elect. Safety info & education tools
MTE Corporation, line reactors
Myron Zucker, Inc., capacitors and harmonic filters

N
O
OEM Power Systems
ONEAC Corporation, (manufacturer), isolation transformers and small/medium UPS
Optimal Power Solutions

P
PANAMAX (manufacturer), surge protection devices
PdMA corporation, motor testing hardware and software
PEAC, Power Electronics Application Center, field investigations (see EPRI)
Piller, Inc., rotating UPS
Polyphaser Corporation
Powell Electrical Manufacturing Company, manufacturer of harmonic filters & p.f. correction
PowerCET, Consulting, Education & Training
Powerlink Corporation, manufacturer’s rep
Power Distribution, Inc., manufacturer of PDUs, static transfer switches
Power Innovations International, Inc., UPQ/UPS backup solutions
Powersmiths International Corp., harmonic suppression
P...cont.
Power Measurement, PQ monitors
Power Quality Solutions, Inc., Coil-Lock hold-in device
Power Standards Laboratory, manufacturer of Energy + PQ Monitor Devices, Voltage Sag Testing Services Semi F 47
Power Survey International, Inc., power factor correction equipment
Power Systems & Controls, rotary UPS and MG
Powerware, formerly Exide Electronics, UPS manufacturer
Precise Power Corporation, motor generator, written pole

Q  R

Radar Engineers, RFI/TVI locators
Raytek, infrared/temperature measurement
Reliable Power Meters, PQ monitors
Russelectric, Inc., power control panels

S
SatCon Power Systems, manufacture medium voltage static switch/regulator; rotary UPS
S & C Electric Company, switches, protection, PureWave PQ
SASCO, Elect. Constr.& Data Systems, design build
Schaffner EMC Inc., manufacturer of power quality equipment filters
SCR Controls, Inc., manufacturer of KNOWTRIP
7x24 Exchange, a knowledge exchange, mission critical info infrastructure
Siemens, automation and drives
Sierra Sales Engineering, Inc.; Electro Industries monitors
Silicon Power Corp., low/medium voltage static transfer switches
SNC Manufacturing, specialty transformers/reactors, telecom noise
Soft Switching Technologies, power electronic sag ride through
Sola Hevi-Duty, ferroresonant transformer
Square D Company, Groupe Schneider
SSAC, Inc. motor protector/voltage monitor
Staco Energy Products Company, manufacturers of power factor correction equipment
Steven Engineering
Superior Grounding Systems, hollow copper electrodes w/electrolyte
Surge Suppression, Inc., manufacturer of Transient Voltage Surge Protection (TVSS) products
Swain Co., William H., low current (milliamps) AC/DC measurement devices
SymCom, Inc. Three phase motor current/voltage protection

T
TCI Transcoil International; manufacture inductors and filters
Teal Electronics Corporation, manufacturer of power conditioning equipment
Telogy, instrument rentals
Test Solutions West; manufacturers’ reps for Dranetz-BMI
Time Mark Corp., three phase motor voltage protection
Toshiba, UPS manufacturer, low harmonic distortion
Transformer Engineering, LLC, manufacturer of power quality mitigation equipment
Tripp Lite Worldwide, SPD, UPS, ferroresonant voltage regulators

Updated: June 2014
U
Unisin Power Technology, harmonic filters
United Electric Motor Co.

V
VAR + CONTROLS, INC.  Power Factor Correction & Harmonic Filters
VitaTech Engineering – EMF Consultant and Magnetic Shielding Contractor
VYCON, manufacturer of technologically advanced flywheel energy storage systems

W  X  Y  Z
Harold Wells Associates, Russelectric rep, PQ mitigation
Zero Surge, Inc., manufacturer of series inductor surge suppressor, no MOV
ABB Control Inc.
451 El Camino Real
Santa Clara, CA 95050-4300
--
1850 Mt Diablo Boulevard
Suite 400
Walnut Creek, CA 94596
--
1206 Hatton Road
Wichita Falls, Texas 76302-3002
Tel: (800) 877-3232
Tel: (940) 397-7000
Fax: (940) 397-7001
Email: mailto:abbcontrol@aol.com
Web: http://www.abb.com/

ACR Systems, Inc.
Building 210 - 12960 84 Avenue
Surrey, B.C. V3W 1K7
Canada
Tel: (604) 591-1128
(800) 663-7845 Toll Free
(604) 591-2252 Fax
Web: http://www.acrsystems.com/
Manufacturer of ACR PowerWatch, a 120 volt wall plug power monitor. Requires an optical wand attached to a PC serial port to download data.

Active Power
2128 W. Braker Lane, BK12
Austin, Texas 78758
Tel: 512.836.6464
Fax: 512.836.4511
Web: http://www.activepower.com/
A new business in 1996 manufacturing ‘CleanSource’ flywheel energy storage systems. The core technology is a 32” diameter 600 pound flywheel motor-generator rated up to 250kW. The flywheel spins relatively slow in a vacuum. Most of the weight is carried by a magnetic bearing. The CleanSource®2DC product simply replaces batteries for a UPS system for short duration applications. The CleanSource UPS product is an AC voltage device which can be an independent device or coupled with a standby generator for extended outage protection. Size ranges from 150 to 900kW. A third product is GenSTART. It replaces the batteries to start the standby generator. Channel partners include: Caterpillar; Powerware and GE Digital Energy.
AEMC Instruments / Chauvin Arnoux, Inc.
200 Foxborough Blvd.
Foxborough, MA 02035
(508) 698-2115
(800) 343-1391
Web:  http://www.aemc.com/
Email: sales@aemc.com
Manufactures professional electrical test and measurement instruments and current probes:
AmpFlex, flexible current probes, 0.5A to 30,000A and in lengths from 24 to 60 inches. Rated to
1000 V category III. Also makes the Model 3845 Power Quality Analyzer.

Alber Corp.
3103 N. Andrews Ave Ext
Pompano Beach, FL 33064
Tel: (964) 623-6660
Web:  http://www.optmalpwr.com/battery-testing.php
Battery monitoring and testing experts since 1972.

Ametek Power Instruments
50 Fordham Road
Wilmington, MA 01887
Tel: (978) 988-4903
Web:  http://www.ametek.com/
Local vendor rep is:
Associated Power Solutions
8 Crow Canyon Court, Suite 210
San Ramon, CA 94583
Contact: Tim O'Tooke
Tel: (925) 820-8102
Ametec purchased Rochester Instruments line. PG&E has used the Rochester Load Logger for
many years to measure current on overhead and underground conductors. It is rated up to
69kV and 1000A. New designation is: Ametek model LL-230 Load Logger. Maximum
conductor diameter is 1.093”. It can record up to 66 days with a 15-minute interval. Recording
memory is user selectable to stop when full or continuously record on a first-in, first-out basis.
Lithium battery good for over a year. Loadsmart windows software to view data.

Amuneal Manufacturing Corporation
4737 Darrah St.
Philadelphia, PA. 19124
Tel: (215) 535-3000
Tel: (800) 755-9843
Fax: (215) 743-1715
Web:  http://www.amuneal.com/index.htm
Sheilds for Magnetic-Sensitive CRTs and components
Call for free publication: “Complete Guide to Magnetic Shielding.”
If your problem is a shaky image on the CRT due to proximity to high magnetic fields, such as
being close to high current electrical conductors, then you need to move the monitor or shield it.
A custom-made box shield by Amuneal will cost between $500 and $1000. Floppy disks can
lose data if left in a high magnetic field. Mumetal shielding material for a wall cost about
$200/square foot.
Applied Power Technologies - APT
10601 So. De Anza Blvd., Suite 106
Cupertino, CA 95014
Tel: (408) 342-0790
Fax: (408) 342-0797
Email: mailto:rcelio@apt4power.com
Principal: Richard C. Celio, PE
Providing electrical system measurement and monitoring solutions
Formerly represented Power Measurement (Ltd), Victoria, B.C., Canada, who manufactures a power monitor-analyzer-controller for distribution automation. One cycle, true RMS calculations. Also represents SuperIntend, a ground fault monitoring system.
Represents: Flexcore: CTs/PTs, transducers and software
Can provide integrated monitoring package with CPU, monitor, software.

Arteche PQ, Inc.
16964 W. Victor Road
New Berlin, WI 53151
Tel: 262-754-3883
Fax: 262-754-3993
Email: chuck.gougler@artechepq.com
Web: http://www.artechepq.com
Manufacturer of low, medium, and high voltage PQ mitigation equipment such as power factor correction, harmonic filters and capacitors.

ASCO Power Technologies LP, a division of Emerson
1024 Industrial Way, Suite B
Lodi, CA 95240
Tel: 209-339-8001
Fax: 209-339-8133
Email: mailto:mdmorse@asco.com
Web: http://www.ascopower.com/cgi-bin/redirect.pl?/main.htm
Manufacturer of: 1) automatic transfer switches, bypass-isolation switches, solid state auto transfer switches; 2) power control systems, engine generator controls, auto/manual paralleling systems; and 3) remote control switches.

ASIRobicon, a subsidiary of High Voltage Engineering Corp.
500 Hunt Valley Drive
New Kensington, Pennsylvania 15068
Tel: (724) 339-9500
Robicon has been in business since 1964. It has three lines of products: a) Variable Frequency Drives, low and medium voltage up to 30,000 hp; has models with low harmonic input/output and near unity pf; softstart that eliminates flicker; b) power systems line and c) heating and regulating line with SCR power controllers and high frequency power supplies.

AVO International/Megger Group Limited
4271 Bronze Way,
Dallas, Texas 75237-1019 USA
Tel: (800) 723-2861
Fax: 1-214-331-7399
Web: http://www.avointl.com/
Website includes product information and testing guidelines.
AVO International/Megger Group Limited…Cont…
Manufacturer of electrical test instruments including: Megger, Biddle, Multi-Amp, and States. Meggers measure insulation resistance and Biddles measure grounding resistance values. AVO purchased Metrosomics in February 2001. AVO Training Institute for electrical maintenance and safety training in Dallas.
Local Rep: Brill Electronics in Oakland, CA Tel: (510) 834-5888

B

Baker Instrument Company
4812 McMurry Avenue
Fort Collins, CO 80525
Tel: (970) 282-1200
Web: http://www.bakerinst.com
Since 1961, manufacturer of motor tester/analyzers for: insulation testing, megohm, PI, resistance, HiPot, and surge. The Explorer Series II is for on-line monitoring of motor, also has a permanently installed external port to provide a safe connection from MCC to monitor.

Basler Electric
Basler Electric Company
Worldwide Headquarters
Box 269, Route 143
Highland, IL 62249-0269
Website: http://www.basler.com/
Tel: (618) 654.2341
Fax: (618) 654.2351
Email: info@basler.com
Manufacturer of relays and generator controls. DGC, Digital Genset Controller family is a 19-inch rack Excitation Control System which limits, controls, and protects a generator from operating beyond its capability for virtually any kw sized machine. Free software permits local or remote communications via Modbus protocol for programming and metering.

Bender
700 Fox Chase
Highlands Corp. Center
Coatesville, PA 19320 USA
Tel: (800) 356-4266
Fax: 1-610-383-7100
Web: http://www.bender.org/
Email: info@bender.org
Manufacturer of ground fault protection devices for AC and DC power distribution systems; available for grounded, ungrounded, and high-resistance grounded systems.

Brill Electronics
610 East 10th Street
P. O. Box 1378
Oakland, CA 94604
Tel: (510) 834-5888
Fax: (510) 452-3620
Web: http://www.brillelectronics.com/
Distributors for Fluke meters and SOLA Ferroresonant Transformers.
AVO International products: Megger, Biddle, Multi-Amp, States
Buckles - Smith
801 Savaker Ave.
San Jose, CA 95126
Tel: (408) 280-7777
Web: http://www.buckles-smith.com/
Contact: Tom Schneider, Product Manager: Power Protection Equipment
Industrial Automation and Electrical Supplies.
Stocking distributor for Allen Bradley controls and drives, Hubbell connectors; Hoffman
enclosures; TCI line reactors; small Exide UPS; ONEAC line conditioners; Leviton TVSS;
SOLA ferroresonant transformers; Soft Switching Technologies, electronic sag ride-through.
Heavy Duty k-rated transformers; Bussman fuses. Control Concepts filters; Motor-Generator
sets; ICP, International Computer Power, MG.

2409 Pratt Avenue, 20 Main, #5 5594 Brisa Street,  
Hayward, CA 94542 Sacramento, CA 95838 Livermore, CA 94550  
Tel: (510) 487-5600. Tel: (916) 646-3700 Tel: (925) 449-7469

North Bay 5121 Port Chicago Highway Central Valley
Tel: (707) 207-7160 Concord, CA 94520 (209) 830-0668
Tel: (925) 363-4282

C

Caterpillar
Peterson Power Systems, Inc
2828 Teagarden St.
San Leandro, CA 94577-5700
Tel: (510) 895-8400
Web: http://www.petersonpower.com/
Cat Web: http://www.cat.com/cda/layout?m=37516&x=7
Cat UPS system uses flywheel energy storage instead of batteries, 96-97% efficient, compact.
Combine with cat backup generator for extended outages. Size range, 300-900kva, 480volts
only. Unit size 1200kva introduced in January 2003 and can be paralleled. Introduced in 1999,
20 units installed in northern California. 177 units total. Cat UPS also has an optional web
based permanent monitoring service to track disturbances.
See Active Power for other sizes/options

Chevron Energy Solutions
Tel: (866) 433-9207
A unit of ChevronTexaco.
Website: http://www.chevronenergy.com/
Power quality and reliability can be managed with custom energy solutions.
**Chloride Power Protection**  
28430 North Ballard Drive  
Lake Forest, IL  60045  
Tel: (800) 239-2257  
Local sales rep: Larry Evankovich  
Email: larryev@oneac.com  
Fremont Tel: 510-790-3310  
Manufacturer of medium to large UPS. Single phase Synthesis series 4 - 18 kVA. Three-phase series from 10 to 3,000kVA. Has hundreds of thousands UPS installations worldwide. Chloride purchased ONEAC isolation transformers in 1999. See entry #79. Chloride UPS over 225kva use a 12-step rectifier.

**Citel Incorporated**  
11381 Interchange Circle South  
Miramar, FL  33025  
Tel: (954) 430-6310  
Toll Free: (800) 248-3548  
Fax: (954) 430-7785  
Web: [http://www.citel.us](http://www.citel.us)  
CITEL specializes in the manufacture and sale of Surge Protective Devices which protect sensitive electronic equipment and personnel from destructive transient over voltages originating from lightning strikes and electrical disturbances. They manufacture two types of products, namely, (1) Gas Discharge Tubes (GDT) or Surge Arrestor components for PC board level applications and (2) Surge Protective Devices (SPD) or Transient Voltage Surge Suppressor (TVSS) modules for original equipment manufacturers, integrators and end users. Along with PC board level surge arrestor components, their deployment includes a full range of Surge Protective Devices for AC power, DC power, data line and RF coaxial applications.

**Computer Air/Power Systems Inc. (CAPS)**  
2372 Walsh Ave.  
Santa Clara, CA 95051  
Tel: (408) 748-0200  
Toll Free: (800) 800-4877  
Fax: (408) 748-0331  
Web: [http://www.caps4ups.com/](http://www.caps4ups.com/)  
Tom Priest and Kirk Priest  
Email: mailto:tomp@caps4ups.com  
Vendors for: **EFI** brand TVSS with UL1449 listing, 2nd edition; United Power TVSS for high power applications; American Power Conversion UPS; Liebert single phase UPS; and S&C PureWave UPS.
Controlled Power Company
1955 Stephenson Highway
Troy, Michigan 48083.
Email: Info@ControlledPwr.com
Toll Free Phone: (800) 521-4792.
Web: http://www.controlledpwr.com/
Since 1968 manufacturing rectifiers, UPS, and voltage regulators.
Single phase UPS sizes from 400va to 25kva
Power conditioners single phase sizes 250va to 25kva
Electronic line voltage regulators single & three phase; 5kva to 500kva
K-rated shielded isolation transformers product literature

Copper Development Association Inc.
260 Madison Avenue
New York, NY 10016
Visit web page for a primer on power quality
Web: http://www.copper.org/homepage.html
Call (800) 835-2898 for case histories
Call (888) 480-4276 for free CD-ROM on power quality

Cos Phi, Inc.
520 Huron Road
Goderich, Ontario, Canada
N7A 3Y5
Tel: (519) 440-0454
Fax: (519) 440-0446
Web: http://www.cosphi.com/
Email: mailto:info@cosphi.com
Cos Phi, Inc. has been manufacturing and providing power quality and power factor correction solutions since 1990. Services are available in all aspects of high, medium and low voltage power quality and power factor correction. Products and services include capacitors and capacitor banks, harmonic mitigation equipment, grounding, system analysis, testing and measurements, training and education.

Cupertino Electric Inc.
1132 North Seventh Street
San Jose, CA 95112
Tel: (408) 808-8000
Fax: (408) 275-8575
Web: http://www.cei.com/
Founded in 1954. 3,000 employees. Branches in San Francisco and Phoenix, AZ
Design, Build, Construction, and Industrial Services Department
Data Centers, Clean Rooms, Chip manufacturing, Biotech.
During year 2000, installed 84 mission critical rotary energy units totaling 160 megawatts.
**CURRENT Group**
20420 Century Blvd.
Germantown, MD 20874
Tel: (301) 944.2700
CURRENT is integrating KJT’s Enterprise Analyst product, with its network monitoring and CURRENT LOOK® software solutions to provide the utility with unprecedented power. Combining KJT’s and CURRENT’s solutions allows a utility for the first time to analyze the millions of devices on the electric distribution grid and to automatically receive actionable intelligence about areas of concern based on user-defined criteria at the engineer’s desktop.

**Cutler-Hammer**, a division of EATON since 1979
Power quality Hotline: (800) 809-2772
Email: mailto:pqhotline@eaton.com
Cutler-Hammer has a quarterly publication entitled “PQ Connection.”
E-mail: mailto:pqconnection@eaton.com
Cutler-Hammer also has an Engineering Services group for broad electrical concerns in a facility such as power factor or protection studies.
Tel: (800) 498-2678.
Web: [http://www.eatonelectrical.com](http://www.eatonelectrical.com)
A manufacturer of many electrical products: circuit breakers, controls, drives, motors, surge suppressors, transformers, capacitors, harmonic filters, etc. Eaton purchased Westinghouse’s distribution and control business unit in 1994 and merged it with its existing Cutler-Hammer operations based in Milwaukee, WI.

**Cyberex, Inc., a Danaher Company**
7171 Industrial Park Blvd.
Mentor, Ohio 44060
Tel: (216) 946-1783
Fax: (216) 946-5963
Web: [http://cyberex.com/](http://cyberex.com/)
**Regional Offices:**
Denzil Merrill, Southwest Regional Sales Manager:
Hacienda Heights, CA 91745
Tel: (310) 693-6454
Gary Gagliano, West Coast Manager
P.O. Box 6448:
Vacaville, CA 95696
Tel: (707) 451-0366;
Fax: (707) 451-0368
Cyberex is a manufacturer of uninterruptible power systems, line voltage regulators and static transfer switches. Their fast response voltage regulator is the electronic buck-boost type. It utilizes thyristor control of buck and boost transformers in combination with parametric filters to provide regulated sinusoidal output even with nonlinear loads typical of computer systems. The static transfer switch operates in less than 1/4 cycle, Break-Before-Make. Sizes range between 10kVA and 5,000kVA, 120,208 or 480VAC. All Cyberex equipment is custom made to order. It is very good equipment and therefore expensive. Cyberex has been in business for 27 years with same management.
Dahl-Beck Electric
2775 Goodrick Ave.
Richmond, CA
Tel: (510) 237-2325
Web: http://www.dahlbeckelectric.com
Shop Foreman: Helmut Schlitzer
Motor analysis, repair and rewinding. Can perform in-field analysis.
Two standard motor winding tests are: a) surge comparison test and b) DC high pot test.

Danfoss – North America Motion Control
Web: http://www.namc.danfoss.com/
Manufacturers of drives in US and Denmark. Have downloadable software to estimate harmonic distortion from drive installation. Danfoss makes high quality equipment.

Data Power Monitoring Corp.
2351 Sunset Blvd., 170-330
Rocklin, CA 95765
Tel: (415) 460-0522
Toll free: (866) askdpmc
Web: https://datapowermonitoring.com/
Contact: Steve Cotton
Email: mailto:mstevecotton@datapowermonitoring.com
Battery Monitors, on-site, remote, load test, maintenance

Dehn, Inc
P.O.Box 2040
Wickford, RI 02852
Tel: (401) 294-8823
Web: http://www.dehn-usa.com/index.asp
Email: mailto:info@dehn-usa.com
Lightning and surge protection in NEMA rated enclosures for all 600 vac class service entrance and interior applications. Tested to withstand all rated surges, including direct lightning strikes, without blowing fuses. Integral fused disconnect. Field replaceable components. UL listed. Visit web site for product listings and publications.

Detroit Diesel Corp., a subsidiary of DaimlerChrysler AG
13400 Outer Drive, West
Detroit MI 48239-4001
Tel: (313) 592-5000
Web: http://www.detroitdiesel.com/
Detroit Diesel provides for emergency/standby and prime power needs through a completely integrated line of products from 20 to 10,000kW including transfer switches and switchgear. Gas fueled models extend up to 280 kW, with diesel models available throughout the full range.
Central Valley distributor is:
2935 South Orange Avenue, Fresno, CA 93725.
Tel: (559) 486-6900
Web: http://www.valleypowersystems.com/
Detroit Diesel Corp...Cont...
Northern California distributor is:
Stewart & Stevenson
Also distributor for Kohler Power systems and Waukesha-Dresser
Main office: 855 Stillwater Rd., West Sacramento, CA (916) 372-5078
Branch: 1755 Adams Ave., San Leandro, CA (510) 635-8991

Dewetron, Inc.
P. O. Box 1460
Charlestown, RI 02813
Tel: (401) 364-9464
Web: http://www.dewamerica.com
Contact: John H. Carroll, Western Regional Manager
john.carroll@dewamerica.com
Tel: (925) 292-9426 (office)
Tel: (925) 518-4967 (cell)
Dewetron is a manufacturer of monitoring instruments based in Austria. Model PNA560 and 600 are portable power quality monitors.

Diesel Service and Supply, Inc.
755 North 9th Avenue
Brighton, Colorado 80603
Tel: (303) 659-2073
Web: http://www.dieselserviceandsupply.com/
New and used diesel generators for over 20 years. May have Hitec backup flywheel diesel generator in stock. See Hitec for details.

Dranetz-BMI, a division of WPT Company
1000 New Durham Road
Edison, NJ 08818
Tel: (800)-372-6832
Web: http://www.dranetz-bmi.com/
Manufacturer of power quality/energy monitors in Edison, New Jersey. Western Regional Sales Manager is Bob Minassian in LA area
Toll free: (800) 372-6832 extension 339.
Local vendor is Test Solutions West Tel. (408) 452-1105

E
Eaton PowerWare
Eaton is a leading global provider of comprehensive power quality and backup power management solutions under the Powerware brand. Powerware solutions include the broadest range of power quality products and services available today: uninterruptible power systems (UPSs); DC power systems; management software.
Web: http://www.powerware.com/about/powerware.asp

EFI Electronics Corp
1751 South 4800 West
Salt Lake City, UT 84104
Tel: (801) 977-9009
Web: http://www.efinet.com/
Manufacturer of surge protection products.
Electrical Equipment Sales Company
1338 Reliez Valley Road
Lafayette, CA 94549
Tel: (925) 945-0544
Web: http://www.asirobicon.com/
Manufacturers/sales reps for: Commonwealth-Sprague capacitors;
Robicon drives; MTE line reactors; RPM power monitors;
Robicon VFDs: conventional 6-pulse drives from 3 to 1250 hp; harmonic-free drives from
50-15,000 hp; 460 through 7200 volts.
Robicon uses higher pulse drives to limit harmonics.

Electrical Reliability Services, Inc., a wholly owned subsidiary of Emerson, since 1955
6900 Koll Center Parkway, Suite 415
Plesanton, CA 94566
Tel: (925) 485-3400  Fax: (925) 485-3436
Web: http://www.electricalreliability.com/
Power system reliability through testing.
This company does GFI setting and calibration for service entrance disconnects rated at
1000 amps and over at 480v as required by code. They also do training of electrical
maintenance personnel. They provide complete electrical maintenance services for large
customers.

Electric Motor Supply
253 Fulton
Fresno, CA 93721
Tel: (559) 233-1153
Stocking distributor for SOLA, ferroresonant transformers.
Motor sales, motor rebuilding, and electrical construction.

Electro Industries/Gauge Tech
1800 Shames Dr.
Westbury, NY 11590
Tel: (516) 334-0870
Web: http://www.electroind.com/
A manufacturer of electrical power monitors/meters. Top of the line Nexus model comes in a
utility grade socket meter configuration with Ethernet communication option. They also are
associated with Kreiss-Johnson software that provides enhanced analysis and reporting
features.

Electrotek Concepts, a division of WPT, Inc.
408 North Cedar Bluff Road, Suite 500
Knoxville, TN 37923-3641
Tel: (865) 470-9222
Fax: (865) 470-9223.
Web: http://www.pqmonitoring.com/ for new power quality monitoring site.
A consulting company offering engineering services and software to help utilities and customers
improve and optimize the performance of their power systems. Electrotek offers software and
support for utilities to provide employees and customers with access to power quality
disturbance data over a company network and/or the World Wide Web. Products include:
PQView, PQWeb, SuperHarm and TOP. Electrotek developed PASS software that is sold by
BMI to communicate remotely with modems for PQNodes. Electrotek pioneered the concept of
systematic power quality monitoring and collaborated with sister company Dranetz-BMI to
Electrotek Concepts…Cont...
develop the Signature System, a web-based system offering power quality and energy monitoring, along with analytical tools for problem solving and energy management.

Emerson Control Techniques, a division of Emerson Industrial Automation
12005 Technology Drive
Eden Prairie, MN 55344 (near Minneapolis)
Tel: (952) 995-8000
Web: http://www.controltechniques.com/ctcom/
Manufacturer of AC and DC drives and control systems

EPRI
942 Corridor Park Blvd.
Knoxville, TN 37932
Tel: (865) 218-8000
Web: http://my.epri.com
EPRI Solutions provides comprehensive engineering and consulting services to the power industry.

ERICO, Inc.
34600 Solon Road
Solon, Ohio 44139-2695
Toll free: (800) 248-9353
Tel: (440) 248-0100
Web: http://www.ericocom.com/
Manufacturer of Cadwelding products and publisher of “The Link,” a quarterly newsletter, formerly known as Cadweld News. Erico is also a manufacturer of Eritech ground rods; Erico, Cadweld exothermic welded connections; Erico mechanical and compression connectors; Erico mesh and signal reference grids and Erico power connections. Lightning protection products and services were added in 1985. Surge protection products were added in 1989. Erico takes the whole premise protection approach and provides complete design, training, certification and commissioning services. Erico was formed in 1903 to manufacture railway signal bonding products. Permanent low impedance bonding is the cornerstone of any grounding system.

Field Management Services Corporation
123 No. Laurel Avenue
Los Angeles, CA 90048
Tel: (323) 937-1562
Toll free: (800) 930-1562
Fax: (323) 934-2101
Web: http://www.fms-corp.com/
Developers of low frequency magnetic field shielding using newly developed special sandwiched sheets of aluminum and steel as opposed to high cost, high nickel steel that requires special annealing process. This material is less than 10% of the cost of amuneal material, but is still a custom application.
Filter Concepts Inc., EMI Power Filters
2624 South Rousselle Street
Santa Ana, CA 92707
Tel: (714) 545-7003
Fax: (714) 545-4607.
Free catalog with over 1000 standard models. Single-phase and three-phase AC filters, from 1.5 to 150 amps. DC filters from 3 to 150 amps.

FLIR Infrared Camera Systems, Inc.
Boston, MA
Tel: (800) GO INFRA
Web: http://www.flirthermography.com/ or http://www.flir.com/
Manufacturer of a variety of portable and fixed cameras for imaging and thermography. 30 years experience. Have cameras for rent world wide. Apparently a DOD contractor.

G

GE/Ultravar Capacitors and controls
381 Broadway
Fort Edward, NY 12828-1000
Tel: (518) 746-5229
Fax: (518) 746-5524
Web: http://www.geindustrial.com/cwc/home
Email: mailto:john.childs@indsys.ge.com
Manufacturer of power factor correction and harmonic correction systems, fixed and automatic switched designs, individually engineered, low and medium voltage.

GE Power Systems
Apparatus Service Center
3601 E. Lapalma Ave.
Anaheim, CA 92806
Tel: (714) 630-4111 – 24-Hr. Service
Clyde Ford direct: (714) 237-7217
GE Power Sentry service is a predictive maintenance procedure that includes: vibration analysis; PdMA motor evaluation; thermography; UE ultrasonic leak detection; lubrication oil analysis and motor current signature analysis. Each of the before mentioned analysis is a standalone service. Minimum charge is daily rate of $2,500 plus expenses.

Graybar
1201 B 6th Street
San Francisco, CA 94107
Tel: (415) 575-1925
Web: http://www.graybar.com/
Stocking distributor for SOLA and EFI/Leviton TVSS; Greenlee 2011
Graybar has distribution warehouses in Modesto, Martinez, Oakland, San Francisco, South San Francisco, San Jose, Santa Maria, and Santa Barbara. They have 250 distribution facilities throughout the US, Canada, Mexico and Puerto Rico.
Haefely Trench
Scarborough, Ontario, Canada
Tel: (416) 298-8108;  
Fax: (416) 298-2209
Web: http://www.trenchgroup.com/
Designs and produces specialty high-voltage equipment for electrical utilities, electrical equipment manufacturers and research institutes. Products include Dry Type Air Core Reactors, Instrument Transformers, Transformer Bushings, Relay Communication Products, Wave Traps, Line Tuners, and specialized Protection and Control Equipment. Trench completed sale of Adaptive Var Compensator product line to S&C Electric Company in June 2002.

Hammond Power Solutions Inc.
1100 Lake Street
Baraboo, WI 53913-2866
Tel: (608) 356-3921
Web: http://www.hammondpowersolutions.com
Manufacturer of transformers: dry-type power; harmonic mitigating; distribution; line reactors, buck-boost; control; and special purpose. Manufacturing locations in Canada, US & Mexico.

Harger Lightning & Grounding
301 Ziegler Drive
Grayslake, IL 60030
Tel: (847) 548-8700
Web: http://www.harger.com/
Specialists in Lightning Protection and Grounding Equipment, since 1960. UL Listed Manufacturer; LPI member; Engineers, Distributors
AutoCad Detail disks available

Harmonics Limited
32 Pico Street
San Rafael, CA 94903
Toll free Tel: (877) 437-3688 or (415) 472-5668
Fax: (415) 479-9445
Web: http://www.harmonicslimited.com/
Founded in 1989 by Dr. Michael Lowenstein, Ph.D. Manufacturer of harmonic suppression systems to block harmonic currents. Improves useable system capacity, eliminates need to run oversized neutrals and reduces line losses. Especially applicable where there is a high density of non-linear loads such as telecommunication switching centers.

Harold Wells Associates, a manufacturer’s rep
3223 Crow Canyon Road
San Ramon, CA 94583
Tel: (925) 355-9900
Web: http://www.hwasales.com/nor_cal/nc_home.html
Emergency power and power quality mitigation
Contact: Jim Hoyt
Represents Russelectric
Hioki USA Corporation
6 Corporate Drive
Cranbury, NJ 08512
Tel: (689) 409-9109
Web: http://www.hiokiusa.com

Japanese manufacturer of electrical instruments. Model 3196 P Q Analyzer introduced maybe in 2004. Appears to be very similar to new Fluke 430 and new Dranetz PX5. Model 3283 Clamp On Leak HiTester for measuring very low AC current, range milliamps to 10A, cost $320. No stocking distributor locally, but several local distributors including Buckles-Smith.

Northern California Manufacturers rep:
DSC Technical Sales, Inc.
766 LaPara Avenue
Palo Alto, CA 94306
Tel: (650) 329-1507
Contact: Chris Cockcroft
Email: mailto:chris@dsctechnicalsales.com
PQA consulting partner is PowerCET
PQA rental partner is Electro Rent Corp

Hitec Power Protection, formerly known as HOLEC
12502 Exchange Drive, Suite 404
Stafford, Texas 77477, suburb of Houston
Tel: (281) 240-5335
Toll free: (800) 794-9398
Fax: (281) 240-4774
Web: http://www.hitecups.com/

Dynamic Diesel Systems for Continuous Power Supply 70-1750kVA
Core technology is motor-generator-flywheel with diesel backup instead of batteries.
Available voltages: 480, 600, 5kV and 15kV
Systems can be paralleled. No longer available without diesel as a ride-through solution.
Batteries for starting diesel only, not energy storage.
HOLEC is a Dutch company. All manufacturing is in Holland.
Cost for 1000kVA unit with diesel is about $1 million
Cost for 1600kVA unit without diesel is about $800,000.
No local rep in March 2003
For used units see entry for Diesel Service and Supply, Inc.

I-Grid
8155 Forsythia St.
Middleton, WI 53562
Tel: (608) 662-7200
Web: http://www.i-grid.com/igrid/index.jsp

Web-based distributed power quality and reliability monitoring and notification system using very low cost monitors. This system collects the data on a central server that is accessible to purchaser and will send an email to user when events happen. Developed by SoftSwitching Technologies
Industrial Electric Service Co.
1601 Somoa Boulevard
Arcata, CA 95521
Tel: (707) 822-2485
No website
Established in 1953 in Arcata to serve the lumber mill industry. Principal products are lumber material handling motors/drives/controls/repair/maintenance. IESCO has sold over 3800 drives. Motor repair facilities in Arcata, Anderson and Ukiah. Sales, parts and field service offices in: Arcata, Anderson, Eugene, Ukiah and Crescent City. IESCO uses SCR drives from Eurotherm. IESCO builds the motor/drive and control package. The reason for being in this power quality list is because they use SCR DC drives that have much lower flicker than AC motors, but then the harmonic issue must be addressed.

Infrared Solutions, Inc.
3550 Annapolis Lane North, Suite 70
Plymouth, MN 55447
Tel: (763) 551-0003
Web: http://www.infraredsolutions.com/
Manufacturer of three models. Infrared camera, remote sensor and portable unit.

IPC Power Resistors International Inc. (no longer IPC Power, now Post Glover) a subsidiary of Halma Group Co.
4750 Olympic Blvd.
Erlanger, KY 41018
Phone: (859) 283-0778
1-800-537-6144
Fax: (859) 283-2978
Web: http://www.postglover.com/
Manufacturer of high power electrical resistors used in high impedance neutral grounding systems and other power applications such as dynamic braking and filters. Web site says it is the largest independent manufacturer of power resistors; since 1935. Web site has free engineering reference guide.

J

JDS Products, Inc.
895 Embarcadero Drive
El Dorado Hills, CA 95762
Tel: (916) 933 2699
Web: http://www.jdsproducts.com/
Manufacturer of Sensing-Saf-Start, an in-line device to prevent automatic restarting of machines after an outage. Drop out voltage is at about 90% of nominal or about 105 volts. This would work as a protection device for those you want to drop out if a voltage sag occurs. It comes in 120 or 240 volt versions. It can be plugged into the wall and then the appliance cord can be plugged into it. The price starts at $54 retail. Available through normal electrical distributors. The basic 120v unit is rated at 15 amps. The unit consists of a holding coil, a relay, and a reset button. There are close to 200,000 in use. You would not want to put this on a refrigerator or freezer that you want to restart automatically. Residential use would probably be for a computer or fax.
Katolight Corporation
100 Power Drive
Mankato, MN 56002
Tel: (507) 625-7973
Web: http://pilot.katolight.com/
Manufactures diesel and gas generator sets, size range from 15kW to 2800kW.

Kohler Power Systems
Mosel, Wisconsin
Web: http://kohlerpowersystems.com
Manufactures diesel and gas generator sets, size range from 6kW to 2000kW.

Land Instruments International, Ltd.
10 Friends Lane
Newtown, PA 18940-1804
Tel: (215) 504-8000
Web: http://www.landinst.com/
Manufacturer of a variety of portable and fixed cameras and thermal measurement devices. Portable infrared cameras can be used to detect loose electrical connections, hot bearings, insulation breakdown and view operation of heat exchangers.

Lea International - TVSS solutions
6520 Harney Road
Tampa, Florida 33610
Tel: (800) 654-8087
Fax: (813) 621-8980
Web: http://www.leainternational.com/

Leviton Manufacturing Co., Inc.
59-25 Little Neck Parkway
Little Neck, NY 11362-2591
Toll free Tel: (800) 323-8920
Local Leviton rep: Kirby Booth
Tel: (707) 763-9141, in Petaluma
Web: http://www.leviton.com/
Leviton is a manufacturer of electrical devices, such as wall plugs, switches, dimmers and surge protective devices, SPD, formerly known as TVSS. Leviton has an excellent catalog on SPDs and an excellent training manual for Transient Voltage Surge Suppression. Leviton devices are sold through many local vendors. All SPDs are UL1449 listed and CSA Certified.
LING Electronics (Ling was acquired by QUALMARK)
232 Front Ave
West Haven, CT 06516
Phone: +1-203-933-8000
1-886-661-5464
Email: mailto:sales@qualmark.com
In 1999 became Subsidiary of SatCon Technology Corp.
Manufacturer of solid-state AC frequency conversion, STARSINE. Single and three-phase AC power sources from 12 to 480 kVA, for 45 years. Input frequency: 47 to 63Hz. Input voltage: 120, 208, 240, 480 volts. Output frequency: 50, 60 or 400Hz.
Local vendor: Test Solutions West, 1541 Goody Lane, San Jose, CA 95131
Tel: (408) 452-1105; Fax: (408) 452-1715.

M

Magnetic Shield Corporation
740 N. Thomas Dr.
Bensenville, IL 60106
Phone: (888) 766-7800
Fax: (630) 766-2813
E-Mail: mailto:shields@magnetic-shield.com

Majorpower Corporation
7011 Industrial Drive
Mebane, NC 27302
Tel: (919) 563-6610
Fax: (919) 563-6620
Ray Kramarcy, Account Executive
Web: www.majorpower.com
Manufacturers of the Majorsine family of utility and telecom grade inverters that provide economical AC power for all network needs.

McLaughlin Associates
903 Sneath Lane, Suite 225
San Bruno, CA 94066
Tel: (650) 244-0229
San Jose Office:
Tel: (408) 985-1595
Peter B. McLaughlin, President
Computer room air conditioning and UPS systems. Maintenance-free battery systems. Electrical distribution equipment for sensitive loads, PDUs. All sizes of uninterruptible power supplies. Power conditioning equipment, isolation transformers, surge suppressors. Manufacturers include: APC, Deltec, Holec, International Power Machines, Piller, Leviton and Silicon Power Medium Voltage Subcycle Static Transfer Switches

Mechanical Analysis/Repair Inc., dba Martech, since 1993
142 North Cluff Ave.
Lodi, CA 95240
Tel: (209) 333-8478
Web: http://www.mar-tech.com/
Performs power plant testing: vibration, mechanical and electrical. Has two PDMA units for testing motors; resistance, inductance and capacitance.
Metrosonics/AVO/Megger
Web: http://www.megger.com/
Power analyzers and recording voltmeters for utilities.
The “Metrosonics” name brand was changed to Megger as part of its family of products since February 2002. See AVO.

MIRUS International, Inc.
6805 Invader Cres., Unit #12
Mississauga, Ontario
Canada L5T 2K6
Tel: (905) 565-6900
Fax: (905) 565-6911
Toll Free: 1 - 888 - TO MIRUS (1-888-866-4787)
Web: http://www.mirusinternational.com/
Contact: Al Archambault, Director of Sales
Products: Harmonic Mitigating Transformers, Lineator AUHF Filters for Variable Frequency Drives.

Moore Syndication
3349 Independence Drive
Birmingham, AL 35209
Tel: (205) 871-8819,
Fax: (205) 871-7591
Web: http://www.mooresyndication.com
Pam Moore, President, Email: mailto:pammoore@mooresyndication.com
Principal business is distributor of electrical safety information literature and educational tools to utilities and communities. PG&E purchases from Moore our principal hardcopy PQ brochure entitled “Understanding and Avoiding Commercial Power Disturbances.” It is 25 pages.

MTE Corporation
W147N9525 Held Drive
P.O. Box 9013
Menomonee Falls, WI 53051
Tel: (262) 253-8200
Application Engineering, ext: 218
Customer Services, exts:12/13
Fax: (262) 253-8222
Web: http://www.mtecorp.com/
Line Reactors and transformers

Myron Zucker, Inc.
315 East Parent Street
Royal Oak, Michigan 48067-3728
Tel: (248) 543-2277
Fax: (248) 543-1529
Web: http://www.myronzucker.com/
Manufacturer of power factor correction capacitors and harmonic filters.
N O

OEM Power Systems
Oilfield-Electric-Marine
3616 Pinemont
Houston, Texas 77018
Tel: (713) 680-9659
Web: http://www.oilfieldelectricmarine.com/
Manufacturer of LaserV Medium Voltage Soft Start up to 15,000 volts. Advantages include
current-controlled ramp-ups, decreased torque loads and reduced heat generated in motor.

ONEAC Corporation, a Chloride Power Protection Co. since 1999
27944 North Bradley Road
Libertyville, Illinois 60048-9700
Tel: (847) 816-6000
24 hour technical support (800) 327-8801 (ext: 3)
Local Rep: Larry Evankovich, Tel: (510) 790-3310, in Fremont
Email: mailto:mlarryev@oneac.com
Manufacturer of small to medium size isolation transformers (low impedance power conditioner),
since 1979 and small UPS. Especially appropriate for noise reduction in sensitive equipment
such as internal communication networks. Patented data line protective devices for data and
telecom networks. See Chloride

Optimal Power Solutions
2050 Gateway Place
Suite 100-247
San Jose, CA 95110
Tel: (877) 678-4797
Web: http://www.optimalpwr.com
Provider of world class critical power products and services.

P

PANAMAX (SPD manufacturer)
1690 Corporate Circle
Petaluma, CA 94954
Tel: (800) 472-5555 or (707) 283-5900
Fax: (707) 283-5901
Web: http://www.panamax.com/
Wall outlet size surge suppressors are UL 1449 listed at 330 volts, lifetime warranty

PdMA Corporation
5909-C Hampton Oaks Parkway
Tampa, Florida 33610
Tel: (813) 621-6463
Web: http://www.pdma.com/
Manufacturer of hardware and software to perform electrical measurements on motors. These
measurements are for resistance, impedance and capacitance. A test setup costs about $15k.
See GE Power Systems to contract for testing service versus purchase of equipment. PdMA
presents Motor Reliability Technical Workshops for industrial customers to learn about motor
failure mechanisms. Publishes a free quarterly newsletter.
Power Electronics Application Center (PEAC) *(see EPRI)*
942 Corridor Park Blvd.
Knoxville, TN 37932
Tel: (865) 218-8000
Web: http://my.epri.com
EPRI Solutions provides comprehensive engineering and consulting services to the power industry.

Piller, Inc.
334 County Route 49 or Box 194
Middletown, NY 10940
Tel: (845) 355-5000
Fax: (845) 355-9005
Email:mailto:sales@piller.com
Web: http://www.piller.com/
Manufactures two lines of large UPSs. Traditional line is a combination rotary-solid-state design they call UNIBLOCK. These are premium priced. Size range is like 50 to 750kVA. The new line is called Apostar which is all static and the size range is 20 to 150kVA. Sales literature claims, superior PWFM design supports highly non-linear and unbalanced loads. New product in 1997 is the Tribloc design and a Power Bridge option. This is a vertical synchronous MG with a flywheel that can store up to 15 seconds of energy. Recently, Piller has added an engine to the configuration to completely eliminate the need for batteries. Design category is Uniblock-TD, size range is 400 to 1670 kva.

Polyphaser Corporation, a Smiths Group company
2225 Park Place
Minden, Nevada 89423
Tel: (702) 782-2511
Web: http://www.polyphaser.com/
Contact: Randy Anderson
Lightning Protection equipment manufacturer, for 15 years
Data and power filters

Powell Electrical Manufacturing Company, Houston, Texas
8967 Pleasantwood Avenue NW
North Canton, OH  44720
Tel: (330) 966-1750
Fax: (330) 966-1787
Web: http://www.powl.com/
PEMCO-NCD, Powell Electrical Manufacturing Company - North Canton Division,
This division manufactures metal enclosed harmonic filter systems and power factor correction capacitor banks, low and medium voltage.

PowerCET, Consulting, Education and Training
3350 Scott Blvd., Bldg 55, Unit 1
Santa Clara, CA 95054
Tel: (408) 988-1346
Web: http://www.powercet.com/home/
Experts in Power Quality and the Electromagnetic Environment.
Operational skills training courses on: Dranetz-BMI 4300, PP1, 658, RPM, Fluke 41/43. PQ courses: waveform data analysis; harmonics; solutions for sensitive equipment and grounding.
Powerlink Corporation
Manufacturers’ Representatives since 1987
20 So. Santa Cruz Ave., Suite 320
Los Gatos, CA 95030
Tel: (408) 399-3355
Fax: (408) 399-6202
Web: http://powerlink.com
Email: kcastleberry@powerlink.com for Karen Castleberry

Power Distribution Inc.
4200 Oakleys Ct.
Richmond, Virginia 23223
Tel: (800) 225-4838
Web: http://www.pdicorp.com/
Since 1979 manufacturing: power distribution units; voltage regulators; harmonic cancellation; solid-state switches and systems monitoring. Local vendor: Power Source, Inc., Campbell, CA 95008
Tel: (408) 871-9696.

Power Innovations International, Inc.
333 South 520 West
Lindon, Utah 84042
Tel: (801) 785-4123
Web: http://www.power-innovations.com
Manufacturer of uninterruptible power for homes, businesses and governments worldwide. Supplies off-the-shelf and custom UPS backup solutions to industry including the offshore and onshore oil & gas markets and the military flight simulator markets since 1997.

Powersmiths International Corp.
10 Devon Road
Brampton, Ontario, Canada L6T 5B5
Toll free Tel: (800) 747-9627
Web: http://www.powersmiths.com/
Manufacturer of energy efficient harmonic correcting equipment such as special harmonic filtering/blocking transformers. Improves useable system capacity, eliminates need to run oversized neutrals and reduces line losses.
Power Measurement
2195 Keating Cross Road, Saanichton
Victoria, British Columbia
Canada V8M 2A5
Tel: (250) 652-7100; Toll free: (866) 466-7627
Fax: (250) 652-0411
Web: http://www.pwrm.com/
PM was acquired by Schneider Electric in April 2005. The plan is to integrate PM with Square D PowerLogic line.
Local District Sales Manager: Bill Westbrock, Tel: (415) 457-9040.
San Rafael: Dan Fitzpatrick Tel: (415) 706-1485.
Digital Power monitoring, analysis and control all in one panel-mounted device. Open communications protocol. One cycle high speed waveform capture, 128 samples/cycle, for detailed power quality analysis. Each 7000 series monitor starts at $2,900 and the software is another $4k.
System software displays all real-time data, logged data and status information. System software brings data from 7000 series devices into any client application that supports DDE under Windows 3.1. Currently, meter accuracy is +/- 0.5% but version with +/- 0.2 is being tested. ISO-9002 certified. DNP3.0 communication protocol is PG&E standard for SCADA. All the above product line is surface mounted for a protected environment.
There is a new line of similar function called the 8400/8500 series that is glass encased that looks like and functions like a revenue meter, but with extra capabilities. They are revenue meter accurate. They have been approved for revenue metering by CPUC for direct access and some utilities, but not PG&E yet. They are approved by the California ISO. The rep for the ANSI socket meter configuration series is ABB in Raleigh NC.
Dong Dang, Tel: (919) 212-4891. His email address is mailto:Dong.x.Dang@US.ABB.com

Power Quality Solutions, Inc.
121-D Durwood Road
Knoxville, TN 37922.
Telephone: (423) 691-5851
Fax: (423) 691-5867
Web: http://www.pqsi.com/
Provides industrial and commercial power conditioning solutions for voltage sag and momentary interruption ride-through devices. These include: **Coil-Lock**, relay and contactor hold-in device; Gold Label EMI noise filtering system; and **CVT Plus** constant voltage transformers.

Power Standards Laboratory
2020 Challenger Drive
Alameda, CA 94501 USA
Tel: (510) 522-4400
Fax: (510) 522-4455
http://www.powerstandards.com/
Alex McEachern, CEO
Email: mailto:Alex@PowerStandards.com
The lab has instrumentation to create voltage sags and test compliance with SEMI standard F47 for machine ride-through. Can also test to other standards. PSL has developed a PQ1 Power Quality Relay that senses sags. It is adjustable for various standards and supply voltages from 100 to 240 VAC, 50, 60 or 400 Hz. List price is $290. Maker of PQube monitor. The website has practical PQ tutorials, a teaching toy software, technical paper references and standards.
Power Survey International, Inc.
7880 Trans-Canada Hwy
Montreal, Quebec
H4T 1A5, CANADA
Email  Info@powersurvey.com
Web: www.powersurvey.com
Phone (514) 333-8392
Fax (514) 333-8395
Attention: Sylvain Lanoue, P. Eng.
Power Survey, established in 1948, manufactures a complete range of equipment for Power Factor Correction Capacitors, dynamic capacitor switching and Harmonic Filtering, from 208v up to 35kV engineered to your requirements. These products could be in a fix or automatic configuration. Network PFC and harmonic computer simulation is also available. The extensive experience of our engineering experts in LV and MV networks makes Power Survey a worldwide respected solution and system supplier in the exciting field of Power Quality.

Power Systems & Controls
3206 Lanvale Avenue
Richmond, VA 23230
Incorporated in 1965 to design, manufacture and supply rotary power conditioning systems for critical power users, both rotary UPS and MGs. Products include: rotary UPS, static UPS, rotary MG, synchronous condensers, frequency converters, TVSS. Custom designed controls and PLC programming.
Tel: (804) 355-2803
Fax: (804) 358-0498
Web: http://www.pscpower.com/
Local vendor:
Electrical Equipment Sales, Inc.
Lafayette, CA 94549
(925) 939-2521

Powerware (Eaton PowerWare)
Eaton is a leading global provider of comprehensive power quality and backup power management solutions under the Powerware brand. Powerware solutions include the broadest range of power quality products and services available today: uninterruptible power systems (UPSs); DC power systems; management software.
http://www.powerware.com/about/powerware.asp

Precise Power Corporation
P.O.Box 9547
Bradenton, FL 34206
Tel: (941) 746-3515,
Email: mailto:sales3@precisepwr.com
Web: http://www.precisepwr.com/
Manufacture the unique written-pole Roesel Motor-Generator with up to 15 seconds ride-through. Size modules start at 15kva single phase and 35 kva three phase. Prices start at $22k.
Radar Engineers
9535 NE Colfax St.
Portland, OR 97220
Tel: (503) 256-3417
Web: http://radarengineers.com
Contact: Fred Horning
Manufacture of RFI/TVI locators to detect sparks and corona that cause radio and TV
interference. RF and ultrasonic receivers quickly pinpoint sparking hardware on power lines.
Model 240, price $4,600, HF-UHF RFI Locator, frequency range: 1.8 – 1000MHz, oscilloscope
display. Does record one waveform, no RS232 communication link. Model 242, price $5,400,
RFI Locator, frequency range: 500 kHz – 1000 MHz, oscilloscope display, records six
waveforms. Both units are limited to spot checks, do not record continuously.

Raytek
1201 Shaffer Road
Santa Cruz, CA 95061-1820
Tel: (800) 866-5478
Web: http://www.raytek.com/
Manufacturer of a complete line of infrared, noncontact, and temperature measurement
instruments for industrial, process control and maintenance applications. Since 1963.
We don’t believe Raytek offers a camera as the three above. The Raytek products basically
provide a temperature differential reading which is a much less expensive alternative.

Reliable Power Meters - A FLUKE Company since early 2003
1201 Shaffer Road
Santa Cruz, CA 95061-1820
Toll Free: (888) 257-9897
Technical support of RPM monitors is available using the above toll-free phone number.
For sales and service, please see http://www.fluke.com  Manufacturer of power quality
monitors. Instrument has separate modules to measure power quality, energy, harmonics,
and flicker starting below $4k. Sampling rate is 128/cycle. Built in thresholds.

Russelectric Inc.
South Shore Park
Hingham, MA 02043-4387
Tel: (617) 749-6000
Web: http://www.russelectric.com/
Integrity Power Control & Protection Systems for Critical Facilities
Local rep: see Harold Wells Associates
SatCon Power Systems
Burlington, Ontario, Canada L7N 3P3
Tel: (905) 639-4693
Web: http://www.satcon.com/
Manufacturer of medium voltage static switch and voltage regulator. They also manufacture large megawatt DC power supplies for arc furnaces and process industries using IGBTs instead of thyristors. This results in high power factor and low harmonics. A division manufactures the **STARSINE** advanced rotary uninterruptible power supply (**Rotary UPS**). It is designed to provide 12 seconds of batteryless ride-through with ratings from 315kVA to 2200kVA with operating voltages between 380V and 4160V. A steel flywheel operates at 1980 rpm to provide stored kinetic energy. Bearings are built to require an inspection once every 10 years. Design provides for parallel operation of multiple units.

S & C Electric Company
6601 North Ridge Boulevard
Chicago, Illinois 60626-3997
Tel: (888) 762-8100
Web: http://www.sandc.com/
Patrick Moore, P.E., Territory Manager
San Francisco Sales Office
Tel: (925) 743-8254
E-mail: mailto:pmoore@sandc.com
Specialist in Electric Power Switching and Protection for utilities and industrial customers. Power Quality product area includes: PureWave Source-Transfer Switching Systems; PureWave DVR; PureWave UPS Systems; PureWave AVC Adaptive VAR Compensator; PureWave DSTATCOM; Mark V Circuit-Switches and Fault Tamer Fuse Limitor. Some of these products were developed by a division of Siemens acquired by S&C. The static transfer switch, DVR, AVC and DSTATCom were actually developed by Westinghouse by a division acquired by Siemens.
**SIPCON** - Active Power Line Conditioners using IGBTs based on Siemens SIMOVERT ASD technology. Low and medium voltage through transformers. Ratings from 2.2kVA to 1.3MVA.

SASCO Electrical Construction & Data Systems
San Francisco, CA
SASCO
490 2nd St
San Francisco, CA 94107
415-512-9158
415-512-8972 fax
Santa Clara, CA
SASCO
3508 Bassett St.
Santa Clara, CA 95054
800-400-2503
408-970-8300
408-970-8140 fax
Web: http://www.sasco.com/
Eight offices on the West Coast.
Services include: Pre-construction Services; Design Assist/Design Build; Electrical and Data Systems Construction; Super Sub and Material Procurement.
Schaffner EMC Inc.
52 Mayfield Avenue
Edison, NJ 08837
800-367-5566 Ext. 276
732-225-4789 Fax
Web: www.schaffnerusa.com
Manufacturer of power quality equipment – passive harmonic filters, active harmonic filters, sinewave and dv/dt filters, reactors and EMI filters

SCR Controls, Inc.
3479 Gribble Road
Matthews, NC 28105
Tel: (704) 821-6651
Fax: (704) 821-7999
Web: http://www.scrcontrols.com/
Specialize in service, repair and spare parts for obsolete WER/Emerson DC Drives and Eddy Current Drives. They also manufacture custom controls for DC drives. One such custom device is the patented KNOWTRIP. When this device is added to a motor contactor, undesired contactor dropout caused by power line voltage sags will be eliminated. Models for three control voltages: 120, 240 and 480vac. Prices start at $34.00 for 120 vac model.

7x24 Exchange
Web: http://www.7x24exchange.org/
A knowledge exchange for those who design, build and maintain mission critical enterprise information infrastructure. 7x24 Exchange’s goal is to improve end-to-end reliability by promoting dialogue among these groups.

Siemens USA
Web: USA. http://www.siemens.com/
Energy and automation web site: http://www2 sea.siemens.com/

Sierra Sales Engineering Inc.
5690 Sonoma Drive
Pleasanton, CA 94566
Tel: (925) 484-2250
Fax: (925) 484-9764
Web: http://www.sierrasales.net/
Offices in South San Francisco, Sacramento, Stockton, Modesto,
Reps for utility metering, transformers, Associated Engineering Co CTs and PTs;
Electro Industries power monitors and AVO/Megger/Metrosonics
For Utility Products:
Sierra Utility Sales, Inc.
1054 41st Ave.
Santa Cruz, CA 95062
Tel: 831-464-2250
Fax: 831-464-9009
Web: http://www.sierrautility.net/
E-Mail: mailto:info@sierrautility.net
Joe Palandrani, Sales Manager mailto:joep@sierrautility.net
President and Founder, Dr. Harshad Mehta, formerly with EPRI, was the first to perfect static transfer switch technology for medium voltage applications, the PowerDigm in 1995. Silicon Power manufactures both low voltage and medium voltage switches. The premise for using this technology is that there are two available sources. The local manufacturer’s rep in our area is McLaughlin Associates.

SNC Manufacturing Co, Inc.
101 West Waukau Ave.
Oshkosh, WI 54902
Tel: (920) 231-7370
Fax: (920) 231-1090
Web: http://www.sncmfg.com/
Email: telecom@sncmfg.com
SNC makes specialty transformer/magnetics manufacturer for electric power utilities and telephone noise mitigation. SNC Current Balancing Transformer (CBT) allows only those currents flowing to the farm on the primary to return on the neutral. This is a stray voltage solution. AC Induction/Noise solutions include: induction neutralizing transformers, noise chokes and harmonic suppression reactors. Provides an annual AC Induction Problems and Solutions Seminar, four days to learn how to troubleshoot and effectively use test equipment.

Soft Switching Technologies, innovative power conversion solutions
8155 Forsythia St.
Middleton, WI 53562
Tel: 800-226-5028
Fax: 608-662-7300
Web: http://www.softswitch.com/
Company developed a dynamic sag corrector technology using power electronics and smart controller. The DySC family of products is rated at 250VA to 3,000kVA. It is intended to protect against deep voltage sags down to 50% and momentary power loss up to 12 cycles. Manufacturer claims its cost is half the competition. Single phase unit sizes: 250VA to 36kVA. Three phase unit sizes: 9 to 200kVA, voltages: 208 and 480. The MegaDySC series comes in sizes from 200kVA to 2,000kVA. All units designed to meet the SEMI F47 ride-through standard. Soft Switch introduced in 2002, the I-Grid web based distributed power quality and reliability monitoring and notification system. Low cost, voltage only, single phase $495 and three phase $595. http://www.i-grid.com/. After purchase, annual subscription service is $125. Local sales rep is Tom Schneider at Buckles-Smith in San Jose.

Sola Hevi-Duty
EGS Electrical Group
9377 W. Higgins Road
Rosemont, IL 60018
Tel: (847) 268-6000
Web: http://www.sola-hevi-duty.com/
Sola makes ferroresonant transformers which they refer to as Constant Voltage Power Conditioners. Sizes from 30va to 15kva single phase. They also make UPSs, sizes from 300va to 10kva single phase. Manufacture transformers to 600kVA and surge suppressors.
Square D Company, Groupe Schneider
San Francisco District Sales Office
6160 Stoneridge Mall Road, Suite 200
Pleasanton, CA 94588
Tel: (925) 469-0986
Web: http://www.squared.com/
This office is responsible for Square D electric distribution products including: breakers, GFI breakers, panels, TVSS breakers and they represent the Power Logic circuit monitors. Groupe Schneider is a French company with a large subsidiary that manufactures UPSs for world-wide distribution. The trade name is MGE. This will be the new name for Square D products in PQ mitigation, like UPSs. Square D imports two other French product lines: a) Merlin Gerin and b) Telemecanique drives using Square D name. Schneider Electric acquired Power Measurement in April 2005 and plans to integrate line with PowerLogic line.

SSAC, Inc., Manufacturer of motor protector/voltage monitor
P. O. Box 1000
Baldwinsville, NY 13027
Telephone 1-888-385-1221
Fax: (315) 638-0333
Email mailto:ssac.info@us.abb.com
Application Assistance (800) 377 SSAC (7722)
Web: http://www.ssac.com/
This manufacturer offers a $200 model (WVM Series) with adjustable trip delay, automatic restart and a ten-fault memory and fault display LEDs. There is a lower cost model without time delay. SSAC was taken over by ABB in June 2001, but still manufacture their own unique product line.

Staco Energy Products Company
301 Gaddis Blvd.
Dayton, Ohio 45403
Tel: (330) 854-1147 ext 181
Toll free: (866) 261-1191
Fax: (330) 854-1174
Website: http://www.stacoenergy.com/index.htm
Email: gouglerc@stacoenergy.com
Manufacturers of power factor correction and harmonic mitigation (active and passive) equipment, three-phase and single-phase UPS, along with voltage regulation systems.

Steven Engineering
230 Ryan Way
South San Francisco, CA 94080
Tel: (650) 588-9200
Ordering Inquiries: (800) 670-1253
General Inquiries: (800) 670-4183
Toll Free Fax: (888) 258-9200
Web: http://stevenengineering.com/index.html
Stocking distributor for SOLA, ferroresonant transformer
Superior Grounding Systems
P. O. Box 2171
Irwindale, CA 91706-6232
Sales: (800) SGS-7925
Support: (626) 814-1981
Fax: (626) 814-4552
Email: info@sgscorp.com
Web: http://www.sgscorp.com/
Manufacturer of a low-impedance grounding system using hollow copper tubing filled with chemically charged Calsolyte metallic minerals creating an electrolytic solution that conditions the native soil to provide a reduction in resistance between the electrode and the earth. Another enhancement is the use of special backfill materials to maintain moisture, provide cathodic and corrosion protection and enhance the surrounding soil conductivity. This system is designed for customers that have extreme low impedance grounding needs such as computer data centers or other mission critical processes in poor soil conditions. If you have normal soil conditions, then the usual multi-rod ground grid will normally be sufficient to get the impedance down to 1-5 ohms.

Surge Suppression, Inc.
P.O. Box 1212
Destin, FL 32540-1212
William (Will) Banker
Account Acquisition Director
wbanker@surgesuppression.com
www.surgesuppression.com
850-654-5559
888-987-8877 Toll Free
850-654-3844 Fax
888-900-8879 Toll Free Fax
850-259-3183 Cellular

William H Swain Co.
1611 S. Isabella Road
Mt. Pleasant, MI 48858
Tel: 989-773-3700
Toll free: 1-888-METER58 (638-3758)
Web: http://www.swainmeter.com/
Email: davec@swainmeter.com
info@swainmeter.com
In business since 1964 making low current DC current measurement devices principally for steel pipeline companies concerned with corrosion protection. Low current being from 1mA up to 20A. This is a specialty area because typical current clamp on devices are not accurate below 1A. Has also developed low current AC current measurement devices.

SymCom, Inc.
2880 North Plaza Drive
Rapid City, SD 57702
Tel: (800) 843-8848 / (605) 348-5580
Fax: (605) 348-5685
Web: http://www.symcom.com/
E-mail: mailto:sales@SymComInc.com
Manufacturer of electronic relays that provide motor current and voltage protection. It is advisable to only choose models that have an adjustable time trip delay to avoid nuisance tripping, which will increase cost of device.
TCI Transcoil International
7878 N. 86th Street
Milwaukee, WI 53224
Tel: (414) 357-4480
PQ Helpline (800) 824-8282
Fax: (414) 357-4484
Web: http://www.transcoil.com
Email: MTibbitt@Transcoil.com
Manufacture of Harmonic Mitigating Filters for use with Variable Speed Drives.
Input Filters include – Reactors, Drive Applied Passive, and Bus Applied Active Harmonic Filters
Meeting IEEE-519.
Output Filters Include – Reactors, Long Motor Lead dv/dt Filters, and Sinewave Filters
EMI/RFI Filters.

Teal Electronics Corporation
10350 Sorrento Valley Road
San Diego, CA 92121
Bob Close (rclose@teal.com)
Web: www.teal.com
Tel: (858) 366-7606
Cell: (805) 294-2291
Teal manufactures nearly 90% of the power conditioning and distribution units for the medical
imaging industry. They also provide the lowest impedance systems available for many large
laboratory and system test installations for the semiconductor, and aerospace industry. They
are now beginning to service the solar and other green power industries. All of their designs are
custom.

Telogy
3200 Whipple Road
Union City, CA 94587
Toll free: (800) 835-6494
Web: http://www.telogyllc.com/
Rents electrical test equipment

Test Solutions West, manufacturers’ representatives
1541 Goody Lane, Suite 100
San Jose, CA 95131
Tel: 408-452-1105
Fax: 408-452-1715
Email: mailto:Lfarrer@aol.com
Contact: Les Farrer
Firm was founded in 1994. Focused on the sale of quality instrumentation used in design, test,
debug, and performance verification of products in the research, engineering, manufacturing,
and quality assurance areas of the electronics industry. Including: Dranetz-BMI; Power
innovation International-UPS; Boonton Electronics; and Guildline.
Time Mark Corporation
11440 East Pine Street
Tulsa, OK  74116
Tel: (800) 862-2875
Web: http://www.time-mark.com
Email: Sales: mailto:sales@time-mark.com
       Engineering: mailto:engineering@time-mark.com
Manufacturer of voltage protection for three phase motors (20 models). It is advisable to only
choose models that have an adjustable time trip delay to avoid nuisance tripping, which will
increase cost of device.

Toshiba, Industrial & Power Systems Products
13131 West Little York Road
Houston, Texas 77041
Tel: (800) 231-1412
Fax: (713) 466-8773
Web: http://www.toshiba.com/ind/
Manufacturer of 4100 series UPS up to 100 kVA in Houston, Texas. Features low input
distortion, high power factor for low burden on standby generator. IGBT front-end rectifier.
Capable of 100% unbalanced load.

Transformer Engineering, LLC
2550 Brookpark Road
Cleveland, OH  44134
Tel:  (216) 741-5282
FAX:  (216) 741-4860
Web:  http://www.trenco.com
Email:  sales@trenco.com
Manufacturer of harmonic mitigating, multi-pulse transformers, chokes and reactors. Complete line
of UL recognized 18-Pulse Autotransformers for low voltage applications. Medium voltage step
down isolation transformers to multi-pulse secondary designs for 12-, 18- or 24-Pulse drives.

Tripp Lite Worldwide
1111 West 35th Street
Chicago, IL 60609
Tel: (773) 869-1111   also (773) 869-1000
Fax: (773) 869-1329
Web: http://www.tripplite.com/ for models and prices
Small single-phase 120/240volt units. UPS, SPD, line conditioners, ferroresonant based
voltage regulators.
Unisin Power Technology
P.O. Box 3308
444 North Amelia Ave.
San Dimas, CA 91773
Tel: (909) 305-4846
Fax: (909) 971-0206
Web: www.unisin.com
Contact: mailto:wgilwood@unisin.com
Company provides power quality solutions for complex and demanding electric power applications at all voltage levels. They engineer and manufacture filters including their Unisin 3100 Broadband Harmonic filter, which is a passive filter that can handle all harmonics with one filter, and achieve superior performance that is constant with load.

United Electric Motor Co.
1225 – 10th Ave.
Oakland, CA
Tel: (510) 834-9126
A GE authorized motor service center. Largest motor size for re-winding is 200 HP. Cannot do in-field work. In business since 1930's.

VAR + CONTROLS, INC.
P. O. Box 585
Whitmore Lake, Michigan 48189
Tel: (734) 449-4416; (800) KILOVAR
Email: mailto:varcontrols@provide.net
Web: http://www.myronzucker.com/varcontrols.html
Design engineer: Mr. William McConnell.
Design and build power factor correction, harmonic filters and transient correction. All systems are custom designed. VAR + CONTROLS is associated with Electrotek Concepts, Inc. Electrotek can perform harmonic studies so that power factor correction can be accomplished without problems.

VitaTech Engineering LLC
115 Juliad Ct., Ste. 105
Fredericksburg, VA 22406
Tel: 540-286-1984
Fax: 540-286-1865
Mobile: 703-906-1565
Web: http://vitatech.net
VitaTech Engineering performs comprehensive EMF/EMI/RFI (Electromagnetic Field/Electromagnetic Interference/Radio Frequency Interference) surveys, offers risk assessments, and designs installs state-of-the-art magnetic and RF shielded rooms. Their EMF staff can simulate the magnetic field emissions and evaluate the potential EMI impact from transmission and distribution lines, substations, transformers, secondary feeders, switchgears, busways, conduits, electrical panels and virtually any power source including HVDC transmission lines. They also offer professional RF services measuring/documenting full FCC compliance of cell towers, rooftop antenna farms, commercial broadcast, mobile, marine, pager, and any RF antennas (emitters) up to 26 GHz.
VYCON
23695 Via Del Rio
Yorba Linda, CA 92887
Tel: (714) 386-3800
Fax: (714) 386-3891
Email: sales@vyconenergy.com
Web: http://www.vyconenergy.com
An innovator in the design and manufacturing of technologically advanced flywheel energy storage systems that enable a highly reliable, cost-effective and “green” energy storage solution for a variety of applications.

W X
Harold Wells Associates, a manufacturer’s rep
3223 Crow Canyon Road
Suite 300
San Ramon, CA 94583
Tel: (925) 355-9900
Web: http://www.hwasales.com/nor_cal/nc_home.html
Emergency power and power quality mitigation
Contact: Jim Hoyt, Principal / Sales Engineer / Represents Russelectric

Y Z
Zero Surge, Inc.
889 State Route 12
Frenchtown, NJ 08825
Tel: 800-996-6696
Fax: 908-996-7773
EMAIL: mailto:info@zerosurge.com
Web: http://www.zerosurge.com
Incorporated in 1989 to develop surge protection that did not depend on MOV technology that fails and leaves the sensitive equipment unprotected. Solution is a series-mode inductor based design. Product is UL listed, but not 1449 second edition. We recommend for MOV-based units.