

SELECT™

■ SELENIUM-ENHANCED™ SUPPRESSION FILTER SYSTEMS





■
SELENIUM-ENHANCED™
SUPPRESSION FILTER
SYSTEMS

SElect™

The world's **most advanced,** most reliable electrical transient protection

Designed for applications requiring split-second precision, absolute data accuracy and maximum protection from downtime and equipment damage, Current Technology's SElect™ electrical transient voltage suppression systems feature the industry's best current sharing for maximum reliability as well as individually fused selenium and MOVs to assure today's mission-critical facilities of clean, reliable electrical power. Meticulously manufactured to meet and exceed established world-class quality standards, no other electrical transient disturbance products deliver the proven quality, absolute dependability and permanent protection provided by SElect suppression filter systems.

Engineers and end users with zero tolerance for downtime, data corruption or equipment damage resulting from routine or catastrophic electrical disturbances select the industry's toughest, most dependable solutions to safeguard their facilities: selenium-enhanced™ SElect suppression filter systems from Current Technology.

Another first from the #1 name in surge suppression



For more than a quarter-century, confident companies have relied on Current Technology to safeguard their facilities from costly electrical transients.

Our MasterPLAN® concept of facility-wide suppression filter systems was the industry's first complete and comprehensive protection approach. Current Technology's Electronic Grade Panelboard®, the original integrated panelboard and suppression filter system solution, is legend. We led the way with exclusive, application-specific products such as ControlGuard™ and GuardBus™, which provide unequalled protection for motor control center-fed and busway-driven loads. And Current Technology's "24x7" Installation Hotline was the industry's first around-the-clock power reliability maintenance and installation resource.

Now, we're first again with the only complete, facility-wide family of selenium-enhanced suppression filter systems and the industry's first UL Recognized fuse array that protects individually fused MOVs. Additionally, Current Technology products are the first and only electrical transient protection offerings capable of passing the full rated surge current capacity of units with an integral disconnect and without fuse operation. It's no wonder independently surveyed engineers and end users rate Current Technology "#1" in terms of product quality and service.

"Public Service Co. of Colorado and its customers have used selenium-enhanced electrical transient protection for more than a decade. We are confident that the addition of selenium provides the highest degree of reliability available."

*— Fred Ottman, Power Quality Coordinator
Public Service Co. of Colorado*

Remarkable MasterPLAN® facility-wide protection

Current Technology's heralded MasterPLAN facility-wide network approach combines two or more suppression filter systems to yield dramatically increased performance and long-lasting protection of critical loads. MasterPLAN benefits include improved voltage clamping, expanded distribution system reliability, increased product life expectancy and reduced surge current stress resulting from upstream higher exposure protection.

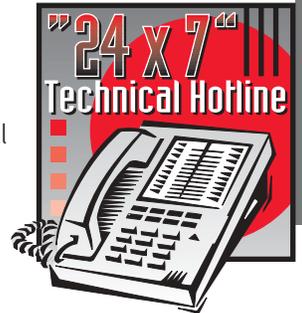
High Frequency Noise Attenuation

Single device*				MasterPLAN network of two or more devices separated by at least 100 feet of wire			
100 K	1M	10M	100M	100K	1M	10M	100M
41dB	31dB	35dB	53dB	83dB	68dB	67dB	84dB

*SEL300 noise attenuation ratings. See individual SElect data sheets for model-specific noise attenuation ratings.

Service and support

Our commitment to superior support and service doesn't end when your order leaves our dock. Like all Current Technology products, SElect suppression filter systems are backed by a well-trained team of applications engineers and customer service professionals. Your technical questions are answered around the clock, 365 days per year, by our in-house support staff. Team members may be reached by phone or via e-mail at www.currenttechnology.com. Additionally, we support our products and ensure your peace of mind by offering two exclusive methods to gauge suppression filter system performance: the DTS-2 Diagnostic Test Set, hand-held MasterTEST® Tester and MasterMIND™ Diagnostic Monitoring (see page 9).



Selenium: the key element of unequalled, enduring SElect™ protection

Via a proprietary engineering process known as *seamless technology™*, Current Technology combines selenium with metal oxide varistors (MOVs), polypropylene capacitors and precise component geometry to deliver the industry's best suppression, highest tested single pulse surge current capacity ratings and — most importantly — longest product life. Current Technology's patented *seamless technology* is the industry's only power reliability design concept to take advantage of selenium's proven, long-lasting suppression capabilities, which safeguard today's busiest facilities with the most trusted, most reliable protection available.

Since 1971, Current Technology has utilized selenium as a rectifier — a device that changes alternating current into direct current. When connected back-to-back, selenium rectifiers

provide superior bi-directional surge protection through a special process that allows reverse breakdown current to conduct through the device. When coordinated as the “first line of defense” inside SElect suppression filter systems, selenium rectifiers conduct the routine, long duration

surges and repetitive impulses that are generated by inductive or capacitive loads, and metal oxide varistor (MOV) wear and tear is thereby minimized. The result: superior quality, maximum performance and dramatically extended product life.



Failure-Free Integrated Suppression Bus (ISB™)

The most advanced, most reliable suppression filter assembly

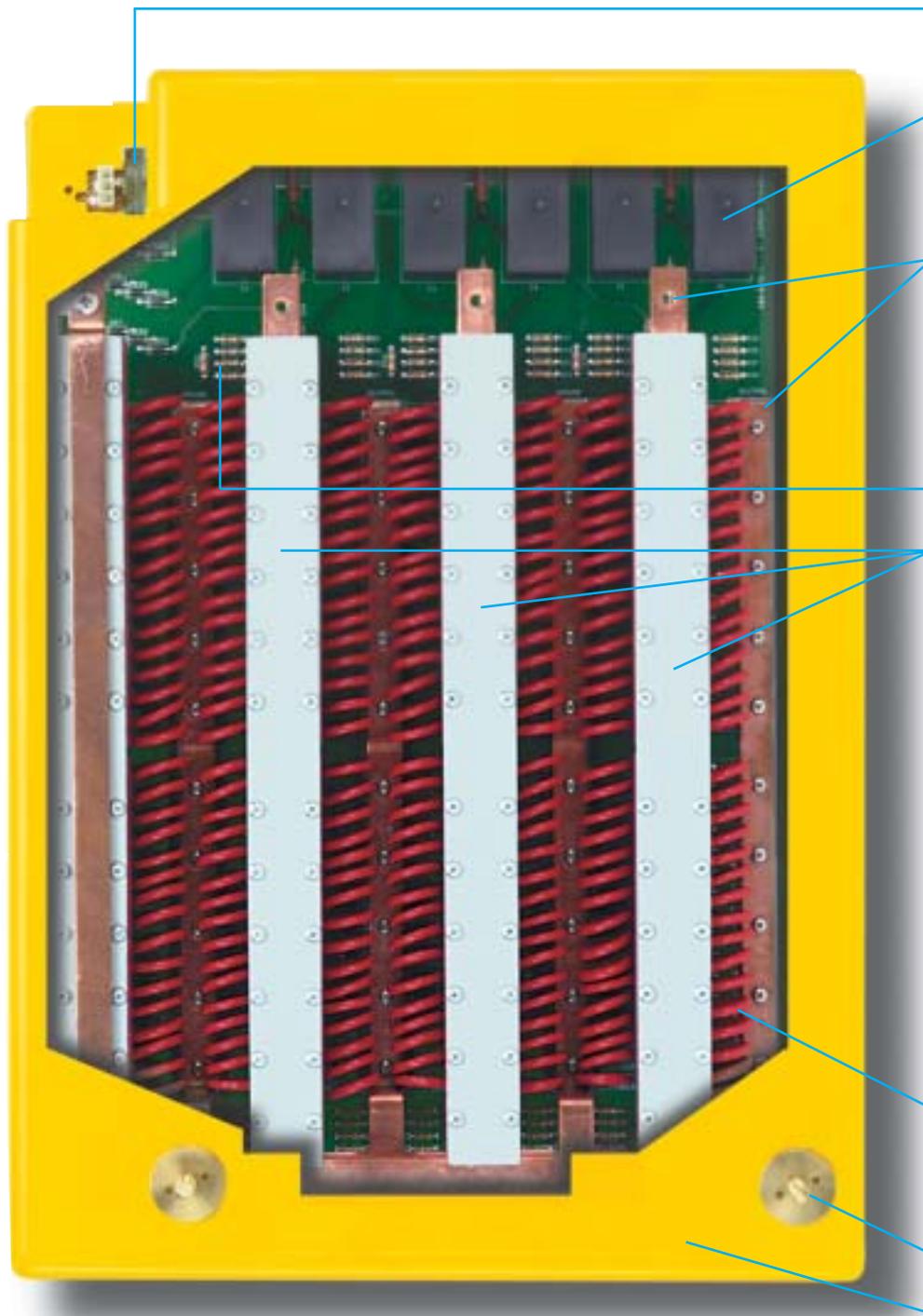
Nearly two years of design effort in Current Technology's research and development facility have developed a dramatically different, improved suppression filter assembly that delivers optimum system performance.

Unlike printed circuit board-based technologies, Current Technology's patented Failure-Free ISB™ does not rely on PCB traces to carry full current magnitude. Instead, cumulative surge current travels on copper bus bars to multiple MOV (metal oxide varistor) paths. PCB trace failures are eliminated while current sharing is enhanced by minimized impedance.

“We strive to help tenants maintain their livelihood, so when facility problems arise we instantly check them out. We chose Current Technology selenium-enhanced suppression filter systems because of our confidence in the products' reliability and performance.”

*— Robert Cohen, Property Manager
Triad Capital Corporation, Montreal*

Failure-Free ISB Features



- Monitor output connectors — real-time monitoring of all modes
- Heavy-duty filter capacitors ensure industry's best high frequency noise and transient filtering
- Solid copper bus construction — cumulative surge current is carried on copper bus bars, thereby eliminating reliance on PCB trace to conduct full magnitude current
- Fuse sensing circuitry
- Internal fusing for uninterrupted protection at higher surge current levels
 - UL Recognized fuse array rated at 200 kAIC (patent-pending)
 - All paths and elements protected via fusing
 - Expanded safety and reliability via a fuse block array that prevents “cross-arcing” which may occur in designs without independently isolated fuses
- Fused MOVs — ensures seamless product performance in event of MOV failure
- Power terminals
- Sand-filled molded polycarbon enclosure

“When breaking news is occurring, the community depends on local television to provide accurate and timely details. Downtime is not an option. Engineers purchase the best products money can buy to protect their equipment. I believe in Current Technology's products, or I wouldn't have bought additional units.”

— Tom Daniels, Director of Engineering and Operations
KTVT Channel 11 (CBS affiliate)

Top-Quality Assurance: Extensive product testing

Selenium-enhanced SElect suppression filter systems are designed and manufactured in compliance with the following industry regulatory agency standards and guidelines:

NEMA Standard LS 1-1992

National Electrical Manufacturers' Association specification guideline for low-voltage surge protective devices. Per NEMA LS 1, Current Technology supports and publishes conservative design-rated single-pulse surge current capacity ratings that do not exceed the published ratings of individual component manufacturers. Additional tested maximum single-pulse surge current reports obtained through independent laboratory testing are also available.

Underwriters Laboratories —

UL 1449 (revised 1998) and UL 1283

Benchmark standards for surge suppression safety and performance. Current Technology engineers have participated in the UL 1449 industry advisory group since its inception.

CSA C22.2 M-1996

Canadian Standards Association's guidelines for compliance with general Canadian Electrical Code requirements for bonding and grounding/protective grounding of electrical equipment and surge/transient voltage suppressors.

ANSI/IEEE C62.41 — 1991 and C62.45 — 1995

American National Standards Institute/Institute of Electrical and Electronic Engineers standards for establishment of surge withstand capabilities. SElect suppression filter systems are extensively tested in all modes utilizing a 1.2x50 μ sec 20KV open circuit voltage, 8x20 μ sec short circuit current Category C3 bi-wave (see product specifications, pages 11-15).

On-Site Testing

Current Technology is the industry's first manufacturer to install and utilize a KeyTek® E-Class™ Series 500 PQF Power



Simulator for on-site product testing. The accepted standard for sustained product life evaluation, the KeyTek ECAT permits on-site testing with amperages of up to 10,000 amps and voltages as high as 20,000 volts. SElect suppression filter systems are subjected to strenuous testing and inspection by diligent quality assurance professionals before leaving the factory, and every unit is shipped with a Diagnostic Signature Card listing factory-established benchmark performance values.*

**Diagnostic Signature Card intended for use with DTS-2 Diagnostic Test Set. (See page 9)*

"I knew that lightning had struck us when I heard a huge 'pop' followed by a loud crash. Immediately, we lost one phase of our three-phase system and many of the lights inside the building went out. The courthouse telecommunications system had been taken out by the strike, but nothing protected by the (selenium-enhanced unit) was damaged. The unit kept everything up and running. It probably saved us thousands and thousands of dollars. It paid for itself in a single minute. No facility should be without one."

*— Marv Fischer, Building Official
Grand County, Colorado*

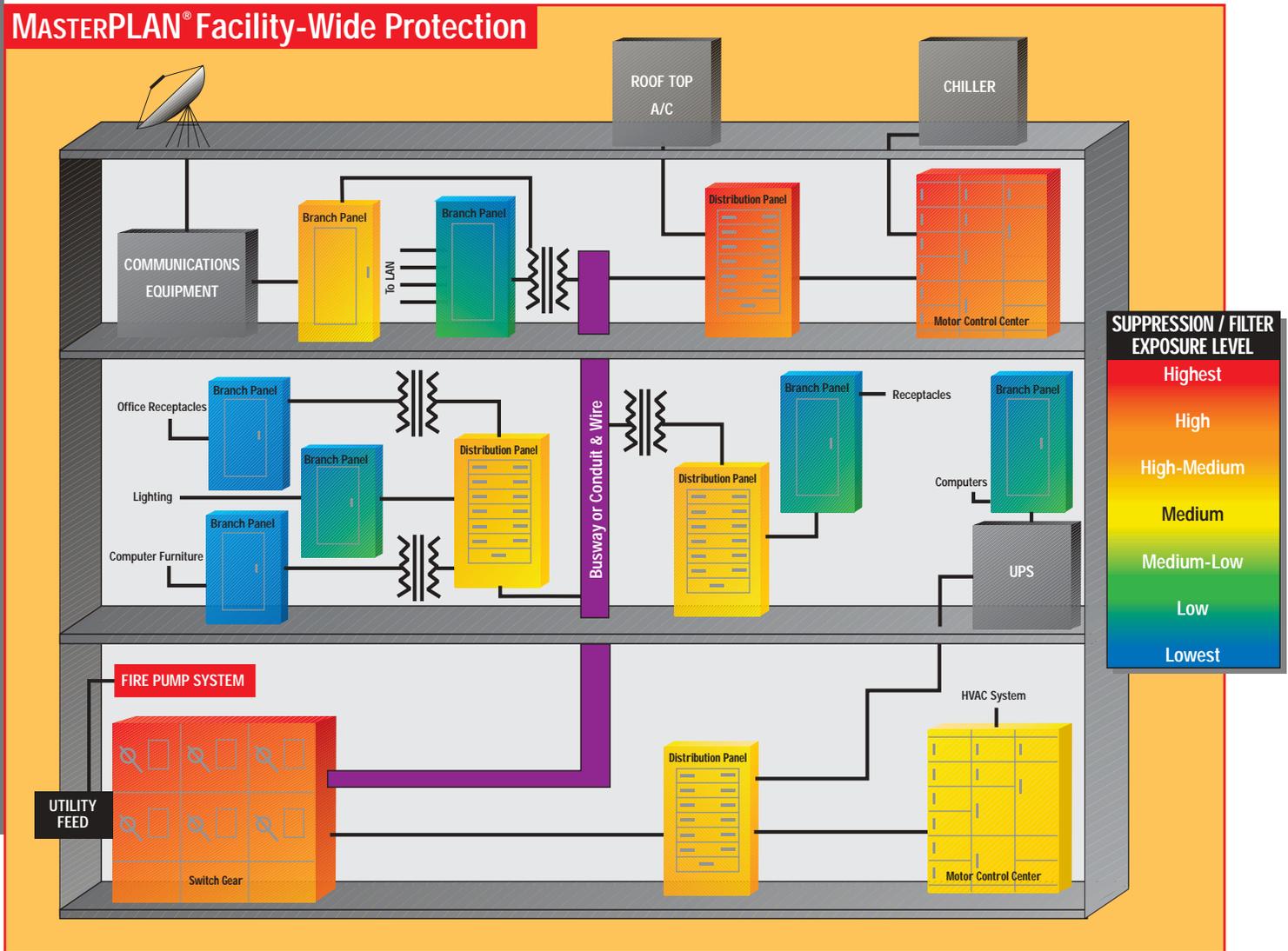
SElect™ selection made easy.

All Current Technology suppression filter systems are manufactured and classified in accordance with the transient surge environments and surge severity guidelines specified in ANSI/IEEE standard C62.41 — 1991. The chart below defines ANSI/IEEE specified transient exposure levels, describes typical applications and suggests the appropriate SElect product for each. The facility diagram represents the variety of exposure levels found within a typical building.

With a basic understanding of your facility's applications, electrical distribution system set-up and ANSI/IEEE exposure levels, suppression filter systems requirements are easily determined. Your Current Technology factory-trained representative will assist you with the evaluation of your needs and gladly conduct a no-cost site inspection to assess the most comprehensive and cost-effective protection for your particular facility.

IEEE Category	Exposure Level	Recommended SElect model	Typical Applications
"C"	Highest	SEL300	<ul style="list-style-type: none"> • Large ampacity service entrances • Service entrances in high-lightning areas
	High	SEL250	<ul style="list-style-type: none"> • Service entrances near utility substations • Service entrances on grid with other large industrial users • Lower ampacity service entrances • Service entrance remotely located from utility power factor correction and grid switching • Large distribution panels
"B"	Medium	SEL200	<ul style="list-style-type: none"> • Distribution switchboards • Heavy equipment (UPS, elevators, etc.) located near unprotected service entrance • Panels feeding variable speed drives • Motor control centers utilizing drives, PLCs, soft-start starters, electronic starters, electronic control systems and electronic monitoring
	Medium-to-Low	SEL150	<ul style="list-style-type: none"> • Distribution panels heavily loaded with sensitive electronic equipment • Branch panels with combination of dirty and sensitive loads • Branch panels without upstream protection • Busway feeding sensitive loads • Bus riser feeding multiple floors with critical or sensitive loads • Branch panels with primarily sensitive electronic loading
"A"	Low-Lowest	SEL100	<ul style="list-style-type: none"> • Branch panels with upstream protection • Branch panels deep within a facility

MASTERPLAN® Facility-Wide Protection



Surge current capacities: How much is enough?

How much protection does your facility require? ANSI/IEEE C62.41 states that a “typical” service entrance transient contains a current magnitude of 10,000 amps. So why are products with hundreds of thousands of amps recommended for top-level protection?

Reliable data sources illustrate that some “non-typical” current magnitudes may be in excess of 200,000 amps. Additionally, lightning strikes often consist of four to six “hits” and may be as high as 40 “hits.” Therefore, suppression filter systems must provide adequate protection to ensure that such events do not cause failure in the act of duty. Current Technology products, unlike those of other manufacturers, are designed to function as *permanent protection* when properly selected, applied and installed.

In addition to withstanding transients of large magnitudes, Current Technology suppression filter systems are built to endure repetitive transient conditions. Recognizing that MOVs are finite elements when exposed to high currents, it’s easy to understand the importance of ensuring that each MOV is never stressed beyond life-threatening limits.

The only method of increasing MOV life expectancy is to reduce current exposure. Current Technology research and development engineers design products capable of surviving the routine transients while maintaining enough “horsepower” to handle episodes of large, catastrophic magnitude.

SElect™ standard features and benefits:

Selenium-enhanced™	Improved performance and longer life via lower clamping voltages, increased MOV reliability and dissipation of more continuous energy
Seamless Technology™ engineering	Unique suppression and filtering properties of four key components — selenium, MOVs, polypropylene capacitors and precise component geometry — are combined and maximized to deliver extended performance and reliability
Failure-Free ISB™	Advanced suppression filter assembly eliminates PCB trace failures, enhances current sharing by minimizing impedances, conducts full magnitude current via all-copper bus, then distributes to multiple MOV paths; individually fused MOVs; separately fused MOVs and selenium for redundant protection and ongoing performance
MasterPLAN® compatible	May be combined with other Current Technology products to yield improved suppression voltage clamping and high frequency noise attenuation (see page 3)
Direct bus connection	Permits connection directly to the serving electrical bus to minimize installation impedances and provides 200 k AIC fault current protection
NEMA 4/12 enclosure	Allows installation in virtually any commercial or industrial environment
Phase indicator lights (3)	Indicates power present
Safety interlocked entry door	Prevents human exposure to energized unit (available only with disconnect)
All-modes protection	Ensures 100% protection by safeguarding all modes (L-N, L-G, L-L, N-G)
“24x7” Installation Hotline	Toll-free installation support 24 hours a day, seven days a week, 365 days a year
10-Year Extended Warranty	Warranted to be defect-free and performance-guaranteed for up to 120 months — even against lightning strikes

SElect™ options and benefits:

Integral disconnect		Safely removes unit power to facilitate testing, maintenance and inspection. Safety interlocked to prevent accidental exposure to energized components.
Primary monitoring		Phase indicator lights, form “C” dry contacts for remote monitoring.
Advanced monitoring		Phase indicator lights, LED indicator, form “C” dry contacts, test switch pad, LED fault indicator, audible alarm/alarm disable switch, alarm disable indicator, low battery indicator, disturbance counter.
MasterMIND™ diagnostic monitoring		Phase indicator lights, LED indicator, form “C” dry contacts, audio alarm/disable switch, reset and test switches, phase and filter LED status indicators, alarm disable indicator, real-time notification of % protection status, % protection warning, N-G voltage, N-G current, selenium fuse status, capacitor fuse status, RMS voltage, sags, swells, dropouts, outages, disturbance counters, battery back-up of stored data. <i>Current Technology's intelligent MasterMIND monitoring system permits real-time monitoring of every MOV and displays protection capacity, number of voltage swells, sags, surges, dropouts and outages.</i>
DTS-2 Diagnostic Test Set		Ten-mode dual-function analyzer for on-site quantitative performance measurement of all electrical modes. Compact and lightweight; easily connects to all SElect models to provide real-time testing and monitoring. The industry's only proactive test set.
MasterTEST® hand-held tester		Provides easy monitoring of Failure-Free ISB components: percentage of protection; phase, selenium and filter status; N-G voltages and currents. Battery operated.



10-YEAR EXTENDED WARRANTY

SElect™ Selenium-Enhanced™ Suppression Filter Systems

Current Technology, Inc., warrants that SElect™ *selenium-enhanced*™ suppression filter systems (the “Product”), shall meet applicable industry standards and specifications and be free from defects in materials and/or workmanship. Should any failure of the Product to conform to this warranty appear within ten (10) years from the date of purchase of the Product, Current Technology, Inc. shall either repair or replace the defective Product, or part thereof, upon return to Current Technology, Inc.’s manufacturing facility in Irving, Texas with transportation charges prepaid.

Current Technology, Inc. shall have no liability under this warranty for any problems or defects directly or indirectly caused by misuse of the Product, alteration of the Product (including removal of any warning labels), accidents, or improper installation, application, operation, or repair of the Product.

THIS WARRANTY REPRESENTS THE ENTIRE WARRANTY OF CURRENT TECHNOLOGY, INC. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ORAL OR WRITTEN, INCLUDING, BUT NOT LIMITED TO, THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED.

The liability of Current Technology, Inc. under this warranty is expressly limited to the replacement or repair of the defective part thereof, at Current Technology, Inc.’s sole option. IN NO EVENT SHALL CURRENT TECHNOLOGY, INC. BE LIABLE OR RESPONSIBLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND OR CHARACTER, NOR SHALL CURRENT TECHNOLOGY, INC.’S LIABILITY EVER EXCEED THE PURCHASE PRICE PAID FOR SUCH DEFECTIVE PRODUCT.

This warranty is not transferable and may only be enforced by the original purchaser. Claims under this warranty must be submitted to Current Technology, Inc. within thirty (30) days of discovery of any SElect product defect.

SEL300

SELENIUM-ENHANCED™ SUPPRESSION FILTER SYSTEM FOR HIGHEST EXPOSURE APPLICATIONS

Features and benefits

- Selenium-enhanced™ for extended product life and maximum performance
- Failure-Free ISB™ eliminates PCB trace failures, enhances current sharing
- All-copper, tin-plated bus provides minimum impedance, eliminates wire bends
- Individually fused MOVs for redundant protection and ongoing performance
- Safety interlocked entry door for added safety (with disconnect only)
- “All modes protection” safeguards all electrical modes (L-N, L-G, L-L, N-G)
- Direct bus connection minimizes installation impedances; provides 200 kAIC fault current protection
- 10-Year Extended Warranty

Applications

- Large ampacity electrical service entrances
- Service entrances in high lightning areas

Standard SEL300 Model Numbers

SEL300-120/208-3GY	SEL300-120/240-2G
SEL300-220/380-3GY	SEL300-120/240-3GHD
SEL300-277/480-3GY	SEL300-240-3DG
SEL300-347/600-3GY	SEL300-480-3DG

Maximum Continuous Operating Voltage (MCOV)

Voltage	MCOV	Voltage	MCOV
120V	150V	347V	420V
220V	275V	480V	640V
277V	320V	600V	840V

Typical Clamping Voltage Data

System Voltage	Mode	B3 Ringwave	B3/C1 Comb. Wave	C3 Comb. Wave	UL 1449 Second Edition
120/240 120/208	L-N	300/350	400/425	625/750	400/400
	L-G	375/425	400/475	625/800	500/500
	N-G	325/325	450/450	725/725	500/500
	L-L	375/475	750/825	925/1225	700/700
277/480	L-N	525/575	850/875	1100/1200	800/800
	L-G	825/850	825/875	1050/1200	1000/1000
	N-G	675/675	875/875	1200/1200	900/900
	L-L	625/725	1625/1700	1925/2175	1500/1500

All Current Technology suppression filter systems clamping voltages are in compliance with test and evaluation procedures outlined in NEMA LS 1-1992, paragraphs 2.210 and 3.10. Values following slash (/) indicate typical clamping voltage data for models with integral disconnect option.



Filtering Attenuation Frequencies

100KHz	1MHz	10MHz	100MHz
41dB	31dB	35dB	53dB

Single/Repetitive Surge Current Capacities

Protection mode	Single pulse surge current capacity/mode	Repetitive surge current capacity/mode
Line-to-Neutral	300,000 amps	15,000 impulses
Line-to-Ground	300,000 amps	15,000 impulses
Neutral-to-Ground	300,000 amps	15,000 impulses
Line-to-Line	300,000 amps	15,000 impulses
Per Phase	600,000 amps	N/A

In compliance with NEMA LS 1-1992, SElect suppression filter systems are single pulse surge current tested in all modes at rated currents of the product by an industry-recognized independent test laboratory. Single pulse surge current capacities of 200,000 amps or less are established by single-unit testing of all components within each mode. Due to present industry test equipment limitations, single pulse surge current capacities over 200,000 amps are established via testing of individual components or sub-assemblies within a mode. Per ANSI/IEEE C62.41-1991 and ANSI/IEEE C62.45-1992, SElect suppression filter systems are repetitive surge current capacity tested per mode utilizing a 1.2 x 50µsec 20KV open circuit voltage, 8 x 20µsec 10 kA short circuit current Category C3 bi-wave at one minute intervals without suffering either performance degradation or more than 10% deviation of clamping voltage at a specified surge current.

Options (see page 9 for details)

Primary Monitoring — L1	Integral Disconnect — DM
Advanced Monitoring — L2	DTS-2 Diagnostic Test Set — DTS
MasterMIND™ Diagnostic Monitoring — L3	MasterTEST® Hand-Held Tester — MT
Stainless Steel Enclosure — SS	

Mechanical Specifications

Dimensions: 38" H x 22" W x 12" D
 Weight: 150 lbs.
 Enclosure type/mount: NEMA 4/12 surface
 Operating environment: -40°C to +60°C
 5% - 95% non-condensing humidity

Electrical Specifications

Connection method: Parallel
 Protection Modes: L-N, L-G, N-G, L-L
 UL Listings: 1449-Second Edition
 1283
 UL Recognized fusing



SEL250

SELENIUM-ENHANCED™ SUPPRESSION FILTER SYSTEM FOR HIGH EXPOSURE APPLICATIONS

Typical Clamping Voltage Data

System Voltage	Mode	B3 Ringwave	B3/C1 Comb. Wave	C3 Comb. Wave	UL 1449 Second Edition
120/240 120/208	L-N	300/350	400/425	625/750	400/400
	L-G	375/425	400/475	625/800	500/500
	N-G	325/325	450/450	725/725	500/500
	L-L	375/475	750/825	925/1225	700/700
277/480	L-N	525/575	850/875	1100/1200	800/800
	L-G	825/850	825/875	1050/1200	1000/1000
	N-G	675/675	875/875	1200/1200	900/900
	L-L	625/725	1625/1700	1925/2175	1500/1500

All Current Technology suppression filter systems clamping voltages are in compliance with test and evaluation procedures outlined in NEMA LS 1-1992, paragraphs 2.210 and 3.10. Values following slash (/) indicate typical clamping voltage data for models with integral disconnect option.

Filtering Attenuation Frequencies

100KHz	1MHz	10MHz	100MHz
41dB	31dB	35dB	53dB

Single/Repetitive Surge Current Capacities

Protection mode	Single pulse surge current capacity/mode	Repetitive surge current capacity/mode
Line-to-Neutral	250,000 amps	14,000 impulses
Line-to-Ground	250,000 amps	14,000 impulses
Neutral-to-Ground	250,000 amps	14,000 impulses
Line-to-Line	250,000 amps	14,000 impulses
Per Phase	500,000 amps	N/A

In compliance with NEMA LS 1-1992, SElect suppression filter systems are single pulse surge current tested in all modes at rated currents of the product by an industry-recognized independent test laboratory. Single pulse surge current capacities of 200,000 amps or less are established by single-unit testing of all components within each mode. Due to present industry test equipment limitations, single pulse surge current capacities over 200,000 amps are established via testing of individual components or sub-assemblies within a mode. Per ANSI/IEEE C62.41-1991 and ANSI/IEEE C62.45-1992, SElect suppression filter systems are repetitive surge current capacity tested per mode utilizing a 1.2 x 50µsec 20KV open circuit voltage, 8 x 20µsec 10 kA short circuit current Category C3 bi-wave at one minute intervals without suffering either performance degradation or more than 10% deviation of clamping voltage at a specified surge current.

Options (see page 9 for details)

Primary Monitoring — L1	Integral Disconnect — DM
Advanced Monitoring — L2	DTS-2 Diagnostic Test Set — DTS
MasterMIND™ Diagnostic Monitoring — L3	MasterTEST™ Hand-Held Tester — MT
Stainless Steel Enclosure — SS	

Mechanical Specifications

Dimensions: 38"H x 22" W x 12"D
 Weight: 150 lbs.
 Enclosure type/mount: NEMA 4/12 surface
 Operating environment: -40°C to +60°C
 5% - 95% non- condensing humidity

Electrical Specifications

Connection method: Parallel
 Protection Modes: L-N, L-G, N-G, L-L
 UL Listings: 1449-Second Edition
 1283
 UL Recognized fusing

Features and benefits

- Selenium-enhanced™ for extended product life and maximum performance
- Failure-Free ISB™ eliminates PCB trace failures, enhances current sharing
- All-copper, tin-plated bus provides minimum impedance, eliminates wire bends
- Individually fused MOVs for redundant protection and ongoing performance
- Safety interlocked entry door for added safety (with disconnect only)
- "All modes protection" safeguards all electrical modes (L-N, L-G, L-L, N-G)
- Direct bus connection minimizes installation impedances; provides 200 kAIC fault current protection
- 10-Year Extended Warranty

Applications

- Service entrances near utility substations
- Service entrances on grid with other large industrial users
- Lower ampacity service entrances
- Service entrance remotely located from utility power factor correction and grid switching
- Large distribution panels

Standard SEL250 Model Numbers

SEL250-120/208-3GY	SEL250-120/240-2G
SEL250-220/380-3GY	SEL250-120/240-3GHD
SEL250-277/480-3GY	SEL250-240-3DG
SEL250-347/600-3GY	SEL250-480-3DG

Maximum Continuous Operating Voltage (MCOV)

Voltage	MCOV	Voltage	MCOV
120V	150V	347V	420V
220V	275V	480V	640V
277V	320V	600V	840V

SEL200

SELENIUM-ENHANCED™ SUPPRESSION FILTER SYSTEM FOR MEDIUM EXPOSURE APPLICATIONS

Features and benefits

- Selenium-enhanced™ for extended product life and maximum performance
- Failure-Free ISB™ eliminates PCB trace failures, enhances current sharing
- All-copper, tin-plated bus provides minimum impedance, eliminates wire bends
- Individually fused MOVs for redundant protection and ongoing performance
- Safety interlocked entry door for added safety (with disconnect only)
- “All modes protection” safeguards all electrical modes (L-N, L-G, L-L, N-G)
- Direct bus connection minimizes installation impedances; provides 200 kAIC fault current protection
- 10-Year Extended Warranty

Applications

- Service entrance distribution switchboards
- Heavy equipment (UPS, elevators, etc.) located near unprotected service entrance
- Panels feeding variable speed drives
- Service entrance motor-control centers utilizing drives, PLCs, soft-start starters, electronic starters, electronic control systems and electronic monitoring

Standard SEL200 Model Numbers

SEL200-120/208-3GY	SEL200-120/240-2G
SEL200-220/380-3GY	SEL200-120/240-3GHD
SEL200-277/480-3GY	SEL200-240-3DG
SEL200-347/600-3GY	SEL200-480-3DG

Maximum Continuous Operating Voltage (MCOV)

Voltage	MCOV	Voltage	MCOV
120V	150V	347V	420V
220V	275V	480V	640V
277V	320V	600V	840V

Options (see page 9 for details)

Primary Monitoring — L1	Integral Disconnect — DM
Advanced Monitoring — L2	DTS-2 Diagnostic Test Set — DTS
MasterMIND™ Diagnostic Monitoring — L3	MasterTEST™ Hand-Held Tester — MT
Stainless Steel Enclosure — SS	



Single/Repetitive Surge Current Capacities

Protection mode	Single pulse surge current capacity/mode	Repetitive surge current capacity/mode
Line-to-Neutral	200,000 amps	13,000 impulses
Line-to-Ground	200,000 amps	13,000 impulses
Neutral-to-Ground	200,000 amps	13,000 impulses
Line-to-Line	200,000 amps	13,000 impulses
Per Phase	400,000 amps	N/A

In compliance with NEMA LS 1-1992, SElect suppression filter systems are single pulse surge current tested in all modes at rated currents of the product by an industry-recognized independent test laboratory. Single pulse surge current capacities of 200,000 amps or less are established by single-unit testing of all components within each mode. Per ANSI/IEEE C62.41-1991 and ANSI/IEEE C62.45-1992, SElect suppression filter systems are repetitive surge current capacity tested per mode utilizing a 1.2 x 50µsec 20KV open circuit voltage, 8 x 20µsec 10 kA short circuit current Category C3 bi-wave at one minute intervals without suffering either performance degradation or more than 10% deviation of clamping voltage at a specified surge current.

Typical Clamping Voltage Data

System Voltage	Mode	B3 Ringwave	B3/C1 Comb. Wave	C3 Comb. Wave	UL 1449 Second Edition
120/240 120/208	L-N	300/350	400/425	625/750	400/400
	L-G	375/425	400/475	625/800	500/500
	N-G	325/325	450/450	725/725	500/500
	L-L	375/475	750/825	925/1225	700/700
277/480	L-N	525/575	850/875	1100/1200	800/800
	L-G	825/850	825/875	1050/1200	1000/1000
	N-G	675/675	875/875	1200/1200	900/900
	L-L	625/725	1625/1700	1925/2175	1500/1500

All Current Technology suppression filter systems clamping voltages are in compliance with test and evaluation procedures outlined in NEMA LS 1-1992, paragraphs 2.210 and 3.10. Values following slash (/) indicate typical clamping voltage data for models with integral disconnect option.

Filtering Attenuation Frequencies

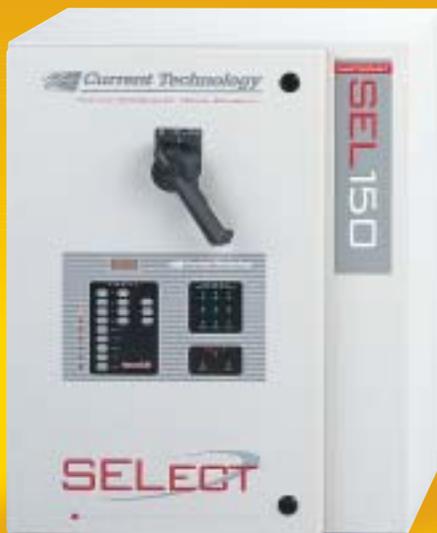
100KHz	1MHz	10MHz	100MHz
41dB	31dB	35dB	53dB

Mechanical Specifications

Dimensions: 38"H x 22" W x 12"D
 Weight: 150 lbs.
 Enclosure type/mount: NEMA 4/12 surface
 Operating environment: -40°C to +60°C
 5% - 95% non-condensing humidity

Electrical Specifications

Connection method: Parallel
 Protection Modes: L-N, L-G, N-G, L-L
 UL Listings: 1449-Second Edition
 1283
 UL Recognized fusing



SEL150

SELENIUM-ENHANCED™ SUPPRESSION FILTER SYSTEM FOR MEDIUM-TO-LOW EXPOSURE APPLICATIONS

Features and benefits

- Selenium-enhanced™ for extended product life and maximum performance
- Failure-Free ISB™ eliminates PCB trace failures, enhances current sharing
- All-copper, tin-plated bus provides minimum impedance, eliminates wire bends
- Individually fused MOVs for redundant protection and ongoing performance
- Safety interlocked entry door for added safety (with disconnect only)
- “All modes protection” safeguards all electrical modes (L-N, L-G, L-L, N-G)
- Direct bus connection minimizes installation impedances; provides 200 kAIC fault current protection
- 10-Year Extended Warranty

Applications

- Distribution panels heavily loaded with sensitive electronic equipment
- Branch panels with combination of “dirty” and sensitive loads
- Branch panels without upstream protection
- Busway feeding sensitive loads
- Bus riser feeding multiple floors with critical or sensitive loads
- Branch panels with primarily sensitive electronic loading

Standard SEL150 Model Numbers

SEL150-120/208-3GY	SEL150-120/240-2G
SEL150-220/380-3GY	SEL150-120/240-3GHD
SEL150-277/480-3GY	SEL150-240-3DG
SEL150-347/600-3GY	SEL150-480-3DG

Filtering Attenuation Frequencies

100KHz	1MHz	10MHz	100MHz
44dB	33dB	36dB	53dB

Typical Clamping Voltage Data

System Voltage	Mode	B3 Ringwave	B3/C1 Comb. Wave	C3 Comb. Wave	UL 1449 Second Edition
120/240 120/208	L-N	300/325	400/425	600/700	400/400
	L-G	375/425	400/450	600/725	500/500
	N-G	350/350	450/450	725/725	500/500
	L-L	350/450	750/825	950/1175	700/700
277/480	L-N	500/525	850/900	1125/1175	900/900
	L-G	825/850	825/850	1050/1150	1000/1000
	N-G	675/700	875/875	1175/1175	800/800
	L-L	650/700	1650/1700	1925/2150	1500/1500

All Current Technology suppression filter systems clamping voltages are in compliance with test and evaluation procedures outlined in NEMA LS 1-1992, paragraphs 2.210 and 3.10. Values following slash (/) indicate typical clamping voltage data for models with integral disconnect option.

Single/Repetitive Surge Current Capacities

Protection mode	Single pulse surge current capacity/mode	Repetitive surge current capacity/mode
Line-to-Neutral	150,000 amps	12,000 impulses
Line-to-Ground	150,000 amps	12,000 impulses
Neutral-to-Ground	150,000 amps	12,000 impulses
Line-to-Line	150,000 amps	12,000 impulses
Per Phase	300,000 amps	N/A

In compliance with NEMA LS 1-1992, SELect suppression filter systems are single pulse surge current tested in all modes at rated currents of the product by an industry-recognized independent test laboratory. Single pulse surge current capacities of 200,000 amps or less are established by single-unit testing of all components within each mode. Per ANSI/IEEE C62.41-1991 and ANSI/IEEE C62.45-1992, SELect suppression filter systems are repetitive surge current capacity tested per mode utilizing a 1.2 x 50µsec 20KV open circuit voltage, 8 x 20µsec 10 KA short circuit current Category C3 bi-wave at one minute intervals without suffering either performance degradation or more than 10% deviation of clamping voltage at a specified surge current.

Maximum Continuous Operating Voltage (MCOV)

Voltage	MCOV	Voltage	MCOV
120V	150V	347V	420V
220V	275V	480V	640V
277V	320V	600V	840V

Options (see page 9 for details)

Primary Monitoring — L1	Integral Disconnect — DM
Advanced Monitoring — L2	DTS-2 Diagnostic Test Set — DTS
MasterMIND™ Diagnostic Monitoring — L3	MasterTEST™ Hand-Held Tester — MT
Stainless Steel Enclosure — SS	

Mechanical Specifications

Dimensions: 27”H x 22” W x 12”D
 Weight: 100 lbs.
 Enclosure type/mount: NEMA 4/12 surface
 Operating environment: -40°C to +60°C
 5% - 95% non- condensing humidity

Electrical Specifications

Connection method: Parallel
 Protection Modes: L-N, L-G, N-G, L-L
 UL Listings: 1449-Second Edition
 1283
 UL Recognized fusing

SEL100

SELENIUM-ENHANCED™ SUPPRESSION FILTER SYSTEM FOR LOW EXPOSURE APPLICATIONS

Features and benefits

- Selenium-enhanced for extended product life and maximum performance
- Failure-Free ISB™ eliminates PCB trace failures, enhances current sharing
- All-copper, tin-plated bus provides minimum impedance, eliminates wire bends
- Individually fused MOVs for redundant protection and ongoing performance
- Safety interlocked entry door for added safety (with disconnect only)
- “All modes protection” safeguards all electrical modes (L-N, L-G, L-L, N-G)
- Direct bus connection minimizes installation impedances; provides 200 kAIC fault current protection
- 10-Year Extended Warranty

Applications

- Branch panels
- Branch panels deep within a facility

Standard SEL100 Model Numbers

SEL100-120/208-3GY	SEL100-120/240-2G
SEL100-220/380-3GY	SEL100-120/240-3GHD
SEL100-277/480-3GY	SEL100-240-3DG
SEL100-347/600-3GY	SEL100-480-3DG

Maximum Continuous Operating Voltage (MCOV)

Voltage	MCOV	Voltage	MCOV
120V	150V	347V	420V
220V	275V	480V	640V
277V	320V	600V	840V

Typical Clamping Voltage Data

System Voltage	Mode	B3 Ringwave	B3/C1 Comb. Wave	C3 Comb. Wave	UL 1449 Second Edition
120/240 120/208	L-N	300/325	400/425	600/700	400/400
	L-G	375/425	400/450	600/725	500/500
	N-G	350/350	450/450	725/725	500/500
277/480	L-L	350/450	750/825	950/1175	700/700
	L-N	500/525	850/900	1125/1175	900/900
	L-G	825/850	825/850	1050/1150	1000/1000
	N-G	675/700	875/875	1175/1175	800/800
	L-L	650/700	1650/1700	1925/2150	1500/1500

All Current Technology suppression filter systems clamping voltages are in compliance with test and evaluation procedures outlined in NEMA LS 1-1992, paragraphs 2.210 and 3.10. Values following slash (/) indicate typical clamping voltage data for models with integral disconnect option.



Filtering Attenuation Frequencies

100KHz	1MHz	10MHz	100MHz
44dB	33dB	36dB	53dB

Single/Repetitive Surge Current Capacities

Protection mode	Single pulse surge current capacity/mode	Repetitive surge current capacity/mode
Line-to-Neutral	100,000 amps	11,000 impulses
Line-to-Ground	100,000 amps	11,000 impulses
Neutral-to-Ground	100,000 amps	11,000 impulses
Line-to-Line	100,000 amps	11,000 impulses
Per Phase	200,000 amps	N/A

In compliance with NEMA LS 1-1992, SElect suppression filter systems are single pulse surge current tested in all modes at rated currents of the product by an industry-recognized independent test laboratory. Single pulse surge current capacities of 200,000 amps or less are established by single-unit testing of all components within each mode. Per ANSI/IEEE C62.41-1991 and ANSI/IEEE C62.45-1992, SElect suppression filter systems are repetitive surge current capacity tested per mode utilizing a 1.2 x 50µsec 20KV open circuit voltage, 8 x 20µsec 10 KA short circuit current Category C3 bi-wave at one minute intervals without suffering either performance degradation or more than 10% deviation of clamping voltage at a specified surge current.

Options (see page 9 for details)

Primary Monitoring — L1	Integral Disconnect — DM
Advanced Monitoring — L2	DTS-2 Diagnostic Test Set — DTS
MasterMIND™ Diagnostic Monitoring — L3	MasterTEST™ Hand-Held Tester — MT
Stainless Steel Enclosure — SS	

Mechanical Specifications

Dimensions: 27”H x 22” W x 12”D
 Weight: 100 lbs.
 Enclosure type/mount: NEMA 4/12 surface
 Operating environment: -40°C to +60°C
 5% - 95% non- condensing humidity

Electrical Specifications

Connection method: Parallel
 Protection Modes: L-N, L-G, N-G, L-L
 UL Listings: 1449-Second Edition
 1283
 UL Recognized fusing

All Current Technology products are proudly engineered and manufactured in the U.S. at our world headquarters.

For more information, call 1-800-238-5000 or visit our extensive website at www.currenttechnology.com.

Although our numerous engineering patents, dedication to power reliability education and acknowledged industry leadership are proof of Current Technology's commitment to quality, innovation and reliability, the true measure of our integrity and success is our growing list of satisfied customers. We look forward to adding your company to this partial list of customers:

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Nabisco
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■ **Biomedical/Laboratory**

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Biomira
Schlering-Plough
M.D. Anderson Cancer Center
Lambert/Parke Davis
Abbott Labs
Merck
Underwriters Laboratories
UC Davis Medical Center

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BLOCKBUSTER Video
Wal-Mart
Planet Hollywood

T.G.I. Friday's

Neiman-Marcus
Mall of America
Home Depot
Harrah's Casinos
JCPenney
La Quinta Inns
Fingerhut
Virgin Records

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Paine Weber
Price Waterhouse
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American Express
Lincoln National Life
Blue Cross Blue Shield
Liberty Mutual
Federal Reserve Bank
Ernst & Young
Goldman Sachs
NationsBank
New York Life
USAA

■ **Education**

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Amherst College
Ohio State University
UCLA
Purdue University
Texas A&M University
Colorado School of Mines
U.S. Air Force Academy
Mississippi State University

■ **Utilities**

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Racine Wastewater Treatment Plant
Virginia Power
East Kentucky Power Cooperative
Illinois Power
San Diego Gas
Houston Light and Power
LA Gas

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Palm Beach Judicial Center
Thousand Oaks Civic Arts Plaza
The Alamodome
Mt. Olive Correctional Facility
London Correctional Institution
Pueblo Correctional Center

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NBC
Cable News Network (CNN)
HBO
Pacific Bell
Bell Atlantic
US West
TCI Cable
Cinar Studios
Universal Studios
Technicolor
Puerto Rico Telephone
Ameritech
GTE

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Western Wireless

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Dell Computer
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AT&T

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McGuire AFB
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