

“Surge Protection Is Our Business”



ECS
ENERGY CONTROL SYSTEMS

we “ARE” the standard



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Protecting Electronic Infrastructure
Around the World

we “ARE” the standard.

Energy Control Systems is proud to offer the industry's most complete and capable line of high quality Surge Protective Devices (SPD's) for Industrial, Commercial and Department of Defense applications. Our high quality, **ISO 9001** manufactured devices cover the full range of applications for AC/DC power, data, current loop, and telecommunications applications from **.5V DC to 7200V AC**.

Our twenty five years of hands on, real world field experience can be seen in the simplicity, functionality, and user friendly design of all our products. Simply stated, these are the finest, highest quality, best performing surge suppression products available anywhere in the world today. We not only set the standard, we are the standard.

A Surge Protective Device is only as good as it's durability, let-through voltage capability and user friendly functionality. Our engineering and design emphasis has always been focused on these simple yet critical factors and they are what separates our products from all others. A few of the key features include:

- **Voltage Responsive Circuitry™**

Designed to mitigate repetitive high energy impulse transients generated by lightning, power system faults and load switching, this circuitry is standard on all **SineTamer®** models.

This multi-level hybrid network provides the brute strength and durability needed to handle repetitive high amplitude transients. Patented, internal, over-current fusing and component level thermal fusing assure these are the safest TVSS devices available today.

- **Frequency Attenuation Network™**

Protecting critical electronics and microprocessors requires the most advanced and capable suppression circuit available - **The Frequency Attenuation Network™ circuit**. Employing multi-stage hybrid technology, this circuit blends the high energy handling capability of the **Voltage Responsive Circuitry™** with advanced frequency attenuation performance. The resulting hybrid circuit suppresses internally generated ringwave transients down to harmless levels, yet it is still capable of handling thousands of repetitive high energy surges. This combination provides a level of durability and performance that is unmatched. It is the absolute best suppression circuit available today.

- **Circuit Encapsulation**

All **SineTamer®** devices utilize advanced circuit encapsulation technology. Circuit encapsulation is widely used in high-end mil-spec, industrial and commercial applications as a means of enhancing the performance and durability of electronic and electrical circuits.

DISCRETE “ALL MODE”

Energy Control Systems offers a complete line of products featuring Discrete “All Mode” Protection

(10 modes for 3 phase, 4 wire Wye and Delta circuits).

This advanced circuit provides important benefits and performance advantages over “Reduced Mode”

PROTECTION ADVANTAGE

(7 or 4 modes) devices that are supplied by other manufacturers. A few of these benefits include:

- Increased Surge Current Sharing
- Increased Operational Life
- Lowered Component Stress
- Improved Durability
- Bonding All Modes To the Same Potential
- Improved Let-through Voltage

Performance with a *Purpose*

The advent of the “**Digital Age**” and the unparalleled deployment of everything digital has given significant rise in the awareness of and need for a performance designed surge protective device. With the total costs of downtime across the spectrum of industry ranging in the \$280 per second category – the need for the protection of the electronic structure is paramount.

For twenty five years our team of employees and distributors has been dedicated to the supply and implementation of surge suppression equipment that does more than just collect dust in the electrical room.

With documented results ranging a 3 month return on investment in Casino Iquique to a **67% reduction** in electronic/electrical component replacements from an international petroleum company that in turn resulted in dramatic reduction of differed production caused by excessive downtime; **Sinetamer®** is the product that is increasingly in demand by companies of every size and industry around the globe.

LA Series Standard Features

- UL1449 3rd Edition
- UL1283 Listed, CE Certified
- Frequency Attenuation Network
- Industry Leading Measured Limiting Voltage (let-through) Performance
- Circuit Encapsulation
- Phase Level Current Fusing
- Voltage Responsive Circuitry™
- Discrete “All Mode” Circuitry
- Advanced Internal Diagnostics
- Component Level Thermal Fusing
- Peak Surge Current Levels From 60kA
- To 300kA per phase

Dedicated Circuit Protection

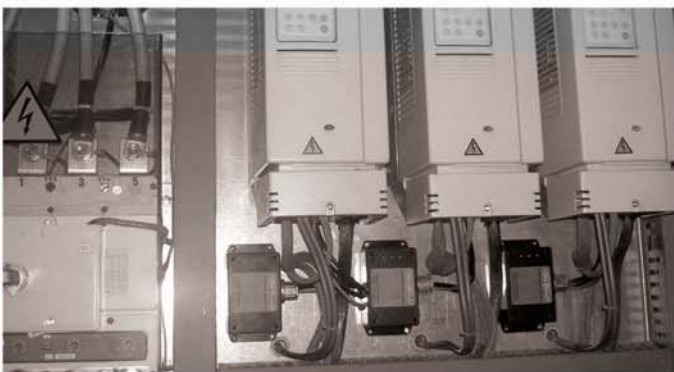
Sophisticated and highly integrated microprocessor based equipment and systems are utilized across every sector of today’s fast paced commercial and business world. Protecting these mission critical systems must be given the highest priority. By the very nature of their design, these systems are increasingly prone to damage from even low level transient activity. The **Dedicated Load Circuit Protection** models provide the level of protection needed to assure these mission critical systems survive and perform as designed.

- Voltage Repsonive Network™ and Multi-stage Hybrid
- Frequency Attenuation Network™
- Series Connected Dedicated load circuit protection
- Compact Size
- Terminal and Hardwire
- Simple Installation
- Lowest Let-through Voltage Levels

Custom and Specialty Models

Our experienced staff of professional design and application engineers have the experience and knowledge needed to successfully solve your most difficult surge protection applications. We are very proud of our ability to solve **ANY** surge protection problem. If one of our thousands of standard models will not fit your unique requirements, we will work hand in hand with you to make whatever modifications and design changes needed to provide the right protection solution. From a single unit to an entire protection system, no job is too small, too large or too complex.

- Medium Voltage Applications
- External Lighting & Audio Controls
- Casino and Gaming Controls
- Amusement Ride Controls





20-year
Free Replacement
Warranty

Optional Features

- Integral Surge Counter
- Form "C" Dry Relay Contacts
- Internal & Remote Audible Alarm
- External Remote Lights
- External Alarm Module
- Integral Disconnect
- External Disconnect
- NEMA 12 or 4X Enclosures
- Application Specific Design
- Modifications Upon Request
- Recessed Wall Mounting cabinets
- Integral Panel Mounting Options



The *Most Advanced Surge Suppressor* Available Today

The **SineTamer**® series of parallel connected panel models represent the state of the art in surge suppression design and performance. The project started with one very simple goal - designing the best performing, safest, surge suppression device in the world. The design team met this goal by blended advanced computer circuit modeling with the tried and true design principals learned over the past twenty-five years. One key design goal, established at very start of the project, was that SineTamer must have the absolute lowest **Measured Limiting Voltage**. No other performance metric is as critical to the survival of your mission critical electronics. Advanced, low impedance surge paths and high quality suppression components assure that the **SineTamer**® product will exceed your required protection levels.

Our product lines have continued to evolve to meet the widest range of needs. Our **LA & RM** series of panel mounted products are designed to meet the ever expanding International market requirements. We also have a complete line of Variable Frequency Drive, Programmable Logic Controller (PLC) and industrial power supply products designed specifically for these applications that will not only provide best in class surge and transient protection but work to prevent software confusion as well! Simply put the **SineTamer**® **Series of surge protective devices is the absolute best suppression device available today!**

Telecom Line Models

Telecommunication lines are very often the overlooked "back door" for transients to enter your facility. Protecting these vital circuits provides another key element in protecting your electronic infrastructure.

- POTS, T1, fax, and modem lines
- Terminal strip, modular jack and punch-down block configurations
- Low Let-through Voltage Levels

