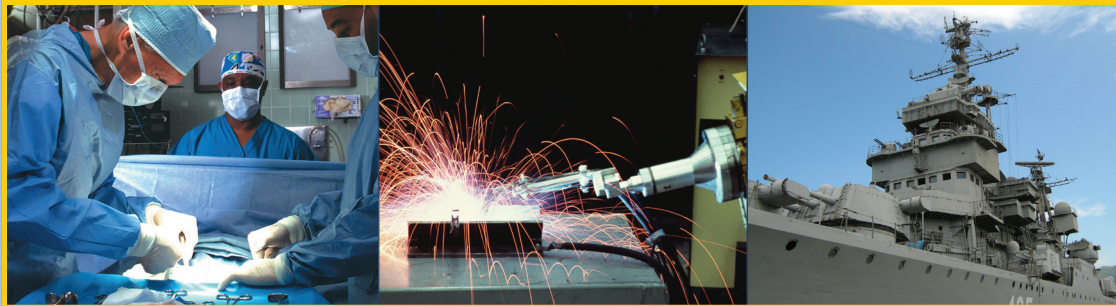




SURGE SUPPRESSION INCORPORATED

An ILSCO® Company

WORLD LEADER IN SURGE PROTECTION FOR THE DIGITAL AGE...AND BEYOND



SURGE SUPPRESSION INCORPORATED® is the leading manufacturer, distributor and service provider of power quality products, trusted by over 200,000 customers around the globe. Our customers include the U.S. Department of State, state and local government operations, and a collection of the world's most recognized brands, like Nike and Mobil Oil.

QUALITY, PERFORMANCE, INTEGRITY

By specializing and focusing all of our research and development on surge protection, we deliver only the highest-performing, award-winning TVSS/SPDs (surge protective devices), including power panel, individual equipment, telecom and data protection. Backed by the most admired 25 Year Warranty in the industry, our multiple lines of SPDs cover all range of power needs from .5VDC to 7200VAC.

Surge Suppression Incorporated has extensive application experience across a full range of industrial, commercial and military sectors. We are proud to provide Surge Protective Devices on shipboard applications for the U.S. Navy as well as a number of domestic and foreign installations for the U.S. Navy, U.S. Marine Corps, U.S. Army and U.S. Air Force.

Our team's depth of expertise and collective years of experience, combined with shared positive ethical values, honesty and integrity, serve as the foundation upon which we provide unsurpassed service and excellence to all of our current and future customers.

Our growth and expansion, fueled by the increasing demand for our products and services, has necessitated the establishment of offices in primary markets within the U.S. and key locations in Asia, Central America, South America and the Middle East.

We set the industry standards for quality, performance and customer satisfaction and are devoted to continually raising that bar. Surge Suppression Incorporated is your surge protection solution.



888.987.8877 ⚡ 352.799.6986
www.surgesuppression.com

YOUR PROBLEM: TRANSIENTS

In today's digital age, companies are more reliant than ever on electronic systems and microprocessor-based controls to efficiently run and maintain their operations while maximizing profits. These electronic control circuits are found in many of these critical systems such as water and waste water treatment facilities, traffic control systems, point of sale terminals, automated manufacturing, accounting, air traffic control systems, computer systems, 911 communications centers, health care facilities, security systems, emergency trauma centers and countless other components of our industrial, commercial and military sectors.

Powerful yet delicate, electronic circuit controls are susceptible to damage from common, often undetected, everyday voltage surges called transients. As the single most common and destructive power quality event, transients cost companies billions of dollars per month in equipment damage or failure, system downtime and lost profit-generating opportunities.

WHAT IS A TRANSIENT?

Transients are brief but powerful over-voltages and over-currents lasting up to a few hundred microseconds (as defined by ANSI/IEEE C62), reaching in excess of 100,000 volts. Transient sources vary from external sources such as lightning, power system faults and utility grid switching, to internal sources which are generated by load switching (turning equipment on and off) and normal equipment operation, including electronic equipment. While much lower in voltage and current as compared to external sources, internal switching transients can occur over 1,000,000 times per hour in active industrial environments (ref. Figure 1).

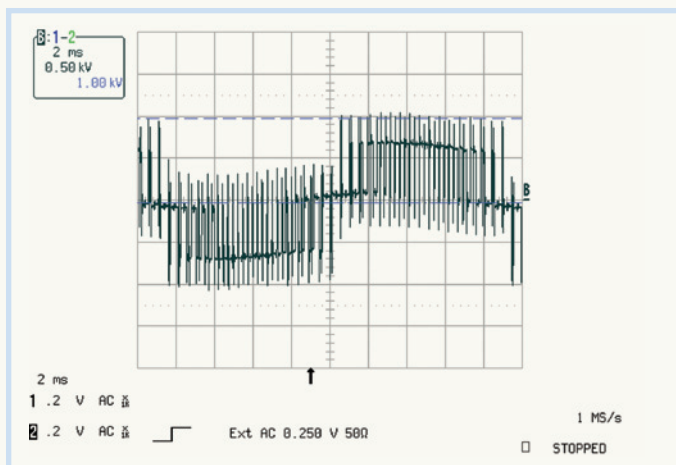


Figure 1: Actual power quality survey test plot showing repetitive transients at the output of a Pulse Width Modulation (PWM) drive.

THE EFFECTS OF TRANSIENTS

EXTERNAL SOURCES

While dramatic and frequently catastrophic, lightning and power distribution system faults represent only about 20% of overall transient-related activity. A single high-energy transient can cripple an entire system for extended periods of time, causing process interruptions and costly downtime and rapidly eroding profits from the costs associated with equipment repair or replacements, low customer satisfaction and lost opportunity.

INTERNAL SOURCES

Internally generated load switching can produce over 1,000,000 transients per hour in active industrial environments causing cumulative damage and eventual system failure. Even without a single lightning strike, power system anomalies and internally generated transient activity cause premature board failure, operational errors and decreased productivity.

SURGE SUPPRESSION INCORPORATED PROVIDES YOU WITH A COMPETITIVE EDGE

From Fortune 500 corporations to small businesses, the need for quality surge protection exists for every sector of commercial, industrial, and governmental applications. Integrated protection systems provide critical protection against damage and even more costly downtime and lost productivity. Safeguarding critical systems is not only a prudent precaution, but it provides a significant competitive advantage.

YOUR COST FOR PREVENTION IS ALREADY PAID

The investment needed to protect your systems from damaging transient-related activity is already in your budget! In many cases, the reduction in your yearly electrical-related equipment maintenance and repair cost will yield an ROI in less than one year or immediately with the next lightning strike, downed power line or overly curious squirrel in a power transformer.

RAPID RETURN ON INVESTMENT

Annual Pre Install Maintenance	\$7,814,718
Annual Post Install Maintenance	\$2,865,107
SPD Cost	\$2,679,350
ANNUAL SAVINGS	\$4,949,611
PAYBACK PERIOD (yrs.)	0.54

U.S. NAVY Analysis of Pre/Post Installation of Surge Suppression Systems on 23 Surface Ships

OUR SOLUTION: OPTIMAL PROTECTION NETWORK®

To eliminate the destructive effects of both external and internal transients and ensure your systems survive and remain operational, our Optimal Protection Network plan consists of a layered defense approach, using patented, proprietary surge protective devices. The devices are strategically placed based on your power, data and telecom systems according to your specific, unique needs.

LAYER 1: SERVICE ENTRANCE LOCATIONS

SPDs at service entrance locations suppress high-energy transients to levels that downstream SPDs can eliminate.

LAYER 2: DISTRIBUTION PANEL LOCATIONS

Any transient energy remaining from the service entrance location during power system faults or severe lightning strikes are further reduced or eliminated at distribution panels that have properly-applied SPDs installed.

LAYER 3: BRANCH PANEL LOCATIONS

Protecting branch and sub-panel locations further safeguards mission-critical and high-dollar systems.

LAYER 4: TELECOM & DATA CIRCUITS

Although often exposed to high-level transients such as lightning, even extremely low-level transients can damage mission-critical telecom, data and control circuits, protection at all building entry points and selected high-risk internal locations is necessary.

LAYER 5: DEDICATED LOAD & POINT-OF-USE LOCATIONS

Dedicated and isolated loads are protected to mitigate the adverse effects of cumulative transient damage and close-proximity transient-generating locations.

NOT GREEN ENOUGH? Our SPDs contribute significantly to green industry initiatives by reducing electrical and electronic waste associated with damaged or destroyed equipment.

Our Optimal Protection Network Solution also provides:

➔ **STRONGEST PRODUCT WARRANTY IN THE INDUSTRY**
25-Year Product Warranty with free replacement SPDs, no strings attached!

➔ **EXPERIENCED PROFESSIONALS**

Our executive, application engineering and R&D staff average two-plus decades of industry tenure while our sales personnel have over 25 years of industry experience and SPD-specific knowledge.

➔ **INDUSTRY LEADING PRODUCT DESIGN**

Never sacrificing safety or let-through voltage performance for marketability, the features of our products continue to drive the industry standard. SSI is unsurpassed in quality and performance.

➔ **QUALITY AND LISTINGS TO INDUSTRY STANDARDS**

ISO 9001: 2008 Quality System; ANSI/UL 1449-2006 (Third Edition); UL 1283; CE; Mil-spec 901D, 67-A, 1399; UL 497A and B

➔ **TOOLS TO MAKE AN INFORMED BUYING DECISION**

Complete, real-world performance testing and specification data from "as installed" tests allows you to make the most informed purchasing decision. We have no reason to hide behind partial test parameters or missing values!

➔ **ADDITIONAL SERVICES AND RESOURCES**

- SPD design and application seminars – Certified by The Institute of Electrical and Electronic Engineers (IEEE) for CEUs/PDHs
 - Power quality and transient susceptibility analysis
 - Complete on-site SPD application survey with full system protection recommendations
- End-user modifiable SPD guide form specifications
- Interactive product selection CD
- On-site pre- and post-installation assistance

SURGE PROTECTION ACCORDING TO THE IEEE

IEEE Std 1100 (Emerald Book), Section 8.6.4 Premise Electrical Surge Protection:

In addition to surge protective devices installed in the service entrance equipment, it is recommended that additional surge protective devices of listed Category "B" or Category "A", as specified by IEEE Std C62.41-2002, be applied to downstream electrical switchboards and panel boards, and panel boards on secondary or separately derived systems if they support communications, information technology equipment, signaling, television or other form of electronic load equipment.

After installing custom designed SPDs (Surge Protective Devices), they have experienced ZERO losses due to lightning.

*Jesse Clark, Instrument Technician
NAS Pensacola*

We decided to put your product throughout the system after doing a cost benefit analysis which showed a handsome payback many times over... I would certainly recommend Surge Suppression Incorporated to any other municipality or company for that matter. Simply stated, it's the truth.

*Gerald Beatty, Foreman
Electrical Maintenance Water Operations, MLGW*

Had it not been for the SPD system, the electrical system would have been completely destroyed and quite possible could have caught on fire.

Ambrose S. Daigle III, Facility Manager

The Suppressor took a direct strike and sacrificed itself. Our electronics sustained NO DAMAGE AT ALL.

*SSgt Steve Schlott, Alarms Technician
Eglin Air Force Base*

Conclusion: SPD is a great investment on any and all systems and ships represented in this study. The Return-On-Investment ratios are all positive...SPDs are low cost items with tremendous savings potential in terms of maintenance on the systems they protect.

*U.S. NAVY
Analysis of Pre/Post Installation of Surge Suppression Systems on 23 Surface Ships*



888.987.8877 ⚡ 352.799.6986
www.surgesuppression.com

info@surgesuppression.com 15424 Flight Path Drive Brooksville, FL 34604 USA
Fax: 352.799.6987 ⚡ 888.900.8879

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ISO 9001:2008 MANUFACTURER

