



ADVANCED POWER
TECHNOLOGIES

2.4kV-38kV Power System Protection RC Surge Snubber



SurgeStop+
Surge Protection
Solutions Brochure

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**SAFE SMART SERVICEABLE SWITCHGEAR &
ENGINEERED POWER SYSTEM SOLUTIONS**



ALN: 532 Rev. 02

RC Surge Snubber Construction



Figure 1: SurgeStop+ 5kV RC Surge Snubber NEMA 3R



Figure 2: SurgeStop+ 15kV Fused RC Surge Snubber NEMA 3R

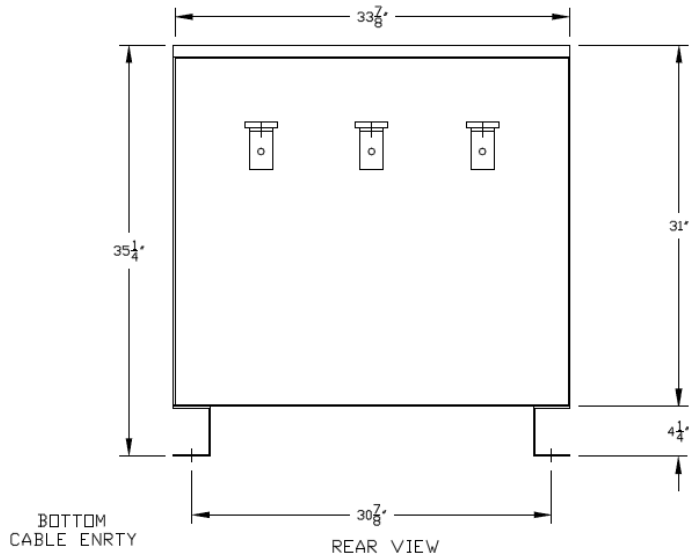
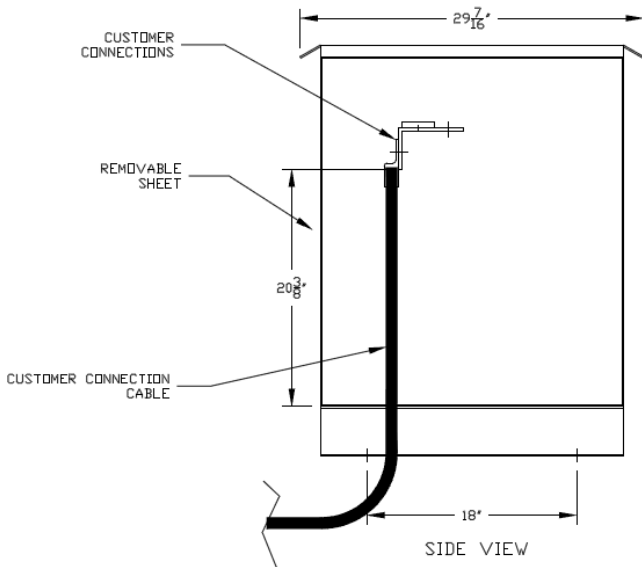
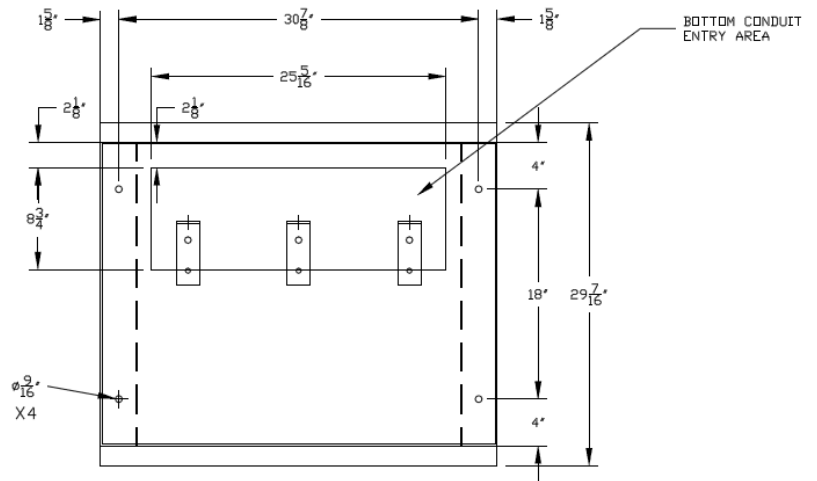
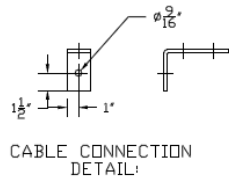


Figure 3: RC Surge Snubber for Top/Ceiling Mounting to Generator or Transformer Enclosures

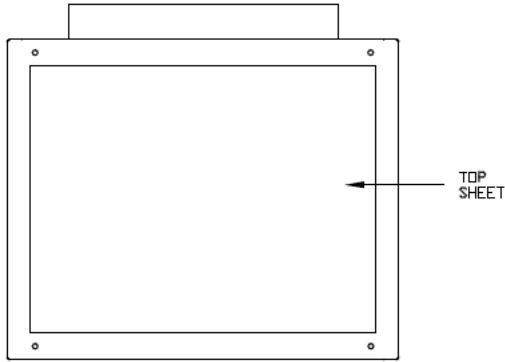
2.4kV-24kV Transformer & Generator Protection

- ⊙ System Ratings:
 - Voltage: 2.4kV-38kV (3Ø)
 - Current: 0.25A-1000A+
- ⊙ Designed & factory tested to IEEE Std C57.142-2010
 - IEEE Guide to Describe the Occurrence and Mitigation of Switching Transients Induced by Transformers- Switching Device- and System Interaction
- ⊙ Stop transient damage and flashovers at equipment terminals and insulation with the APT SurgeStop+
- ⊙ Low Loss Dielectric Design
- ⊙ Snubber line o/c protection fuses available upon request.
- ⊙ 10 second overvoltage rating suitable for use with 10 second APT LZR-series Neutral Grounding Resistor
- ⊙ Applications:
 - For use in reducing the rate of rise of the surge wave in the event of damaging switching/current chop, lightning, and resonance transient surges of generators, transformers, and other rotating machines
 - Optional surge arresters reduce stress and the amount of damage to your power system equipment by controlling the magnitude of voltage transient
- ⊙ Standard Enclosure:
 - Carbon Steel (standard)
 - Filtered ventilation louvers
 - Pad-lockable hinged access door
 - NEMA 1/3R for indoor/outdoor applications
 - Bottom or Side Entry/Exit
- ⊙ Enclosure Options:
 - Open style (no sheets, frame only) for integration into transformer or generator enclosure
 - Aluminum, Stainless Steel (304 or 316)
 - Powder coated ANSI 61 Gray or custom colors
 - Connection Bushings:
 - One or Two
 - Top or Side Mounted
- ⊙ Sensing & Monitoring Available Upon Request:
 - Window Type or Bar Type Current Transformer
 - Secondary terminals available for field interconnection to the ground fault relay
 - Unfused or Fused Voltage Transformer
 - Line live indicator
- ⊙ Approximate Weight: 100-700 lbs. (depending on options selected)

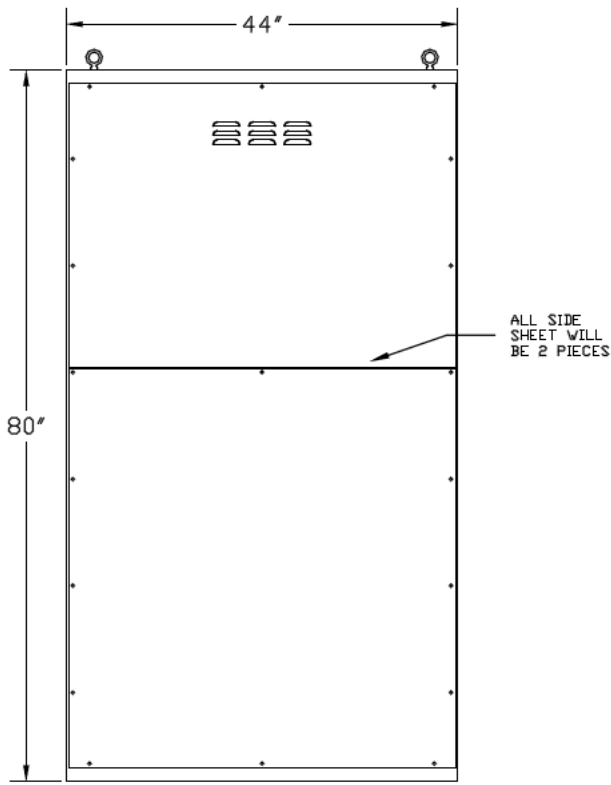
Standard NEMA 3R 2.4kV_{LL}-13.8kV_{LL}



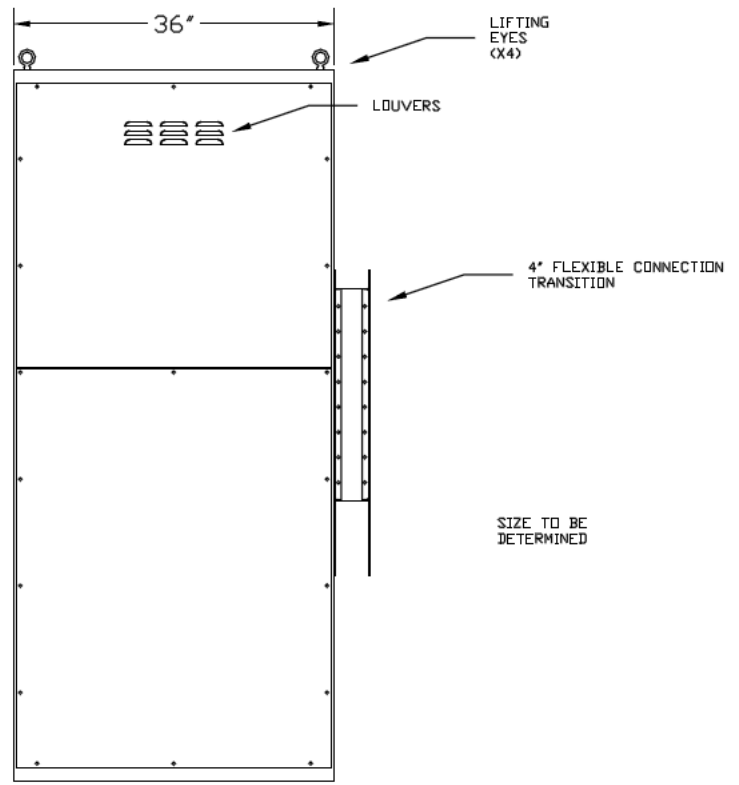
Close Coupled NEMA 1 2.4kV_{LL}-13.8kV_{LL}



TOP VIEW



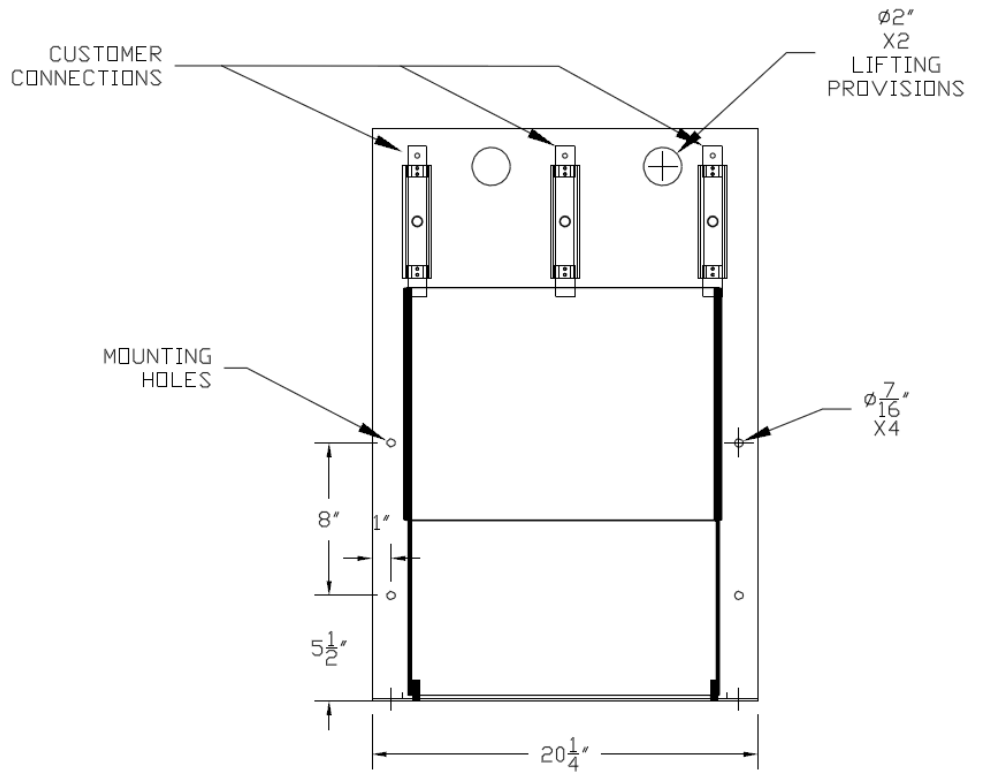
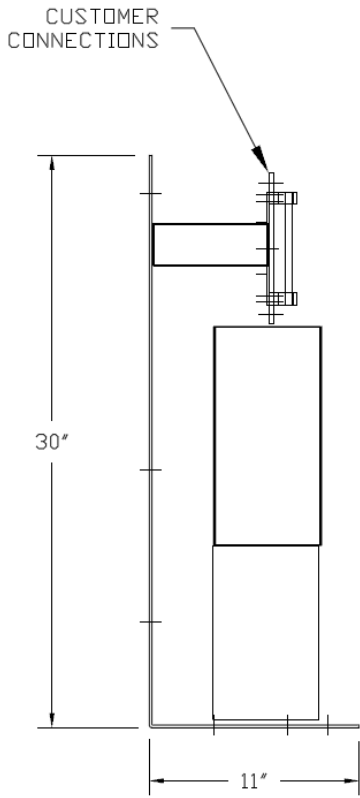
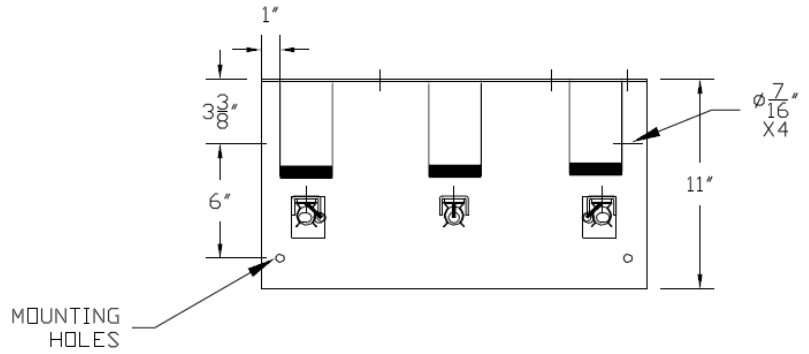
FRONT VIEW



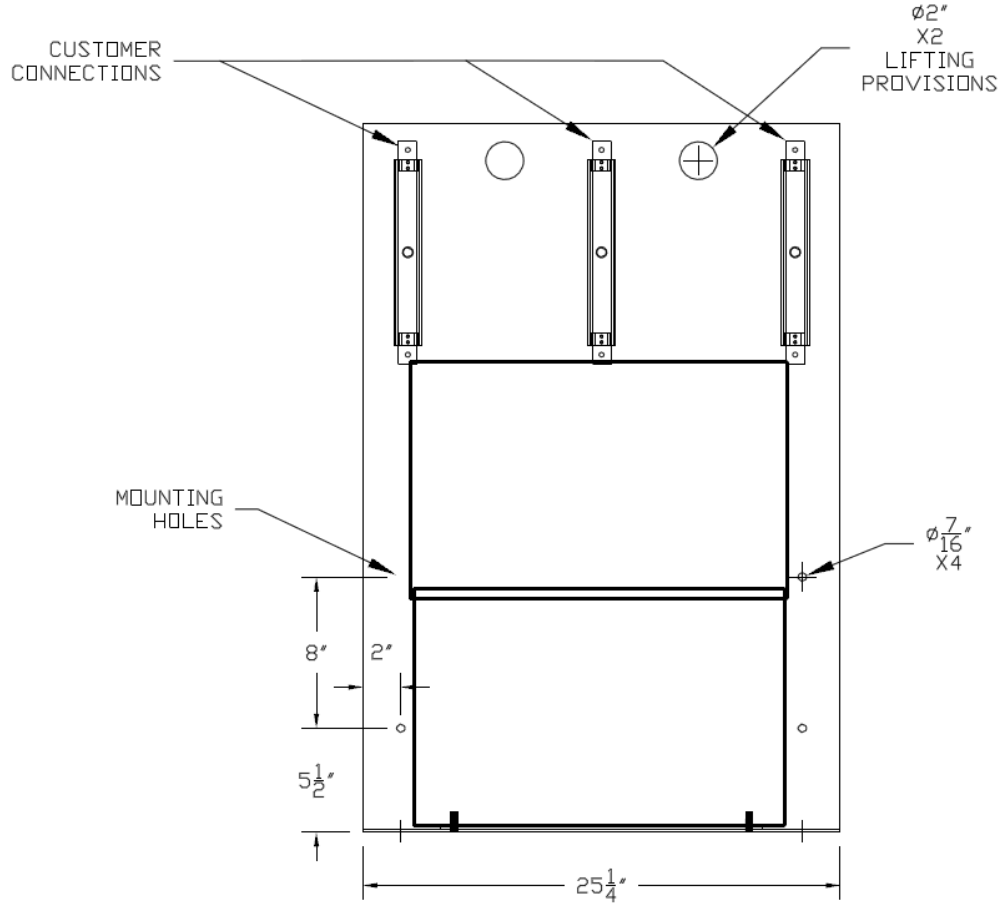
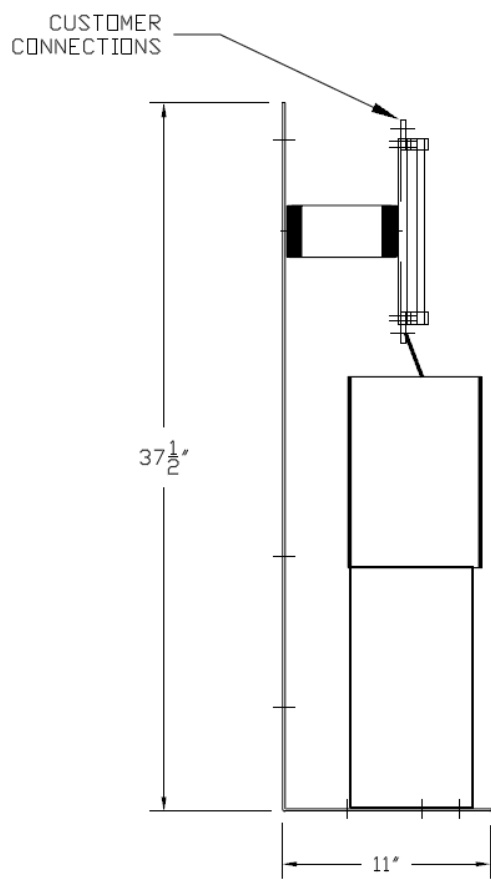
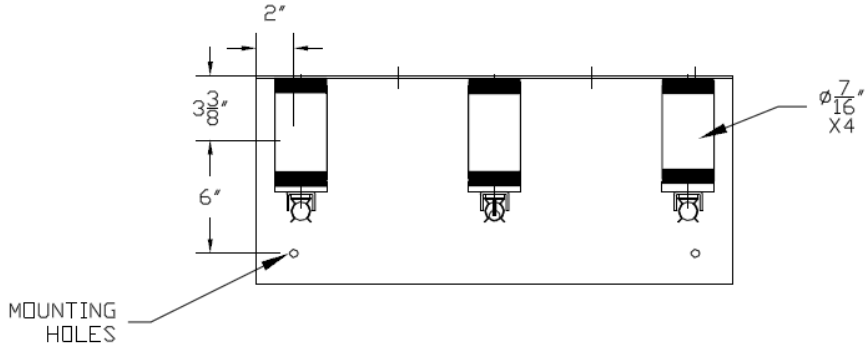
SIDE VIEW

EXTERNAL LAYOUT

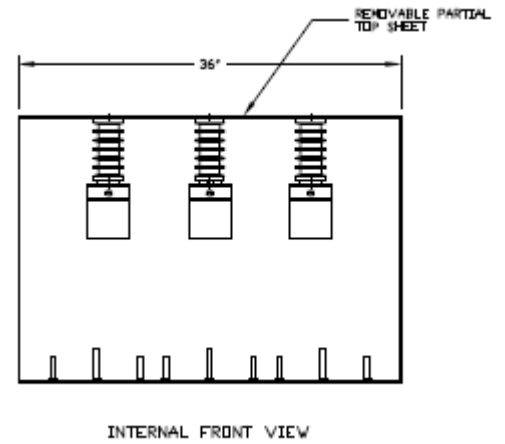
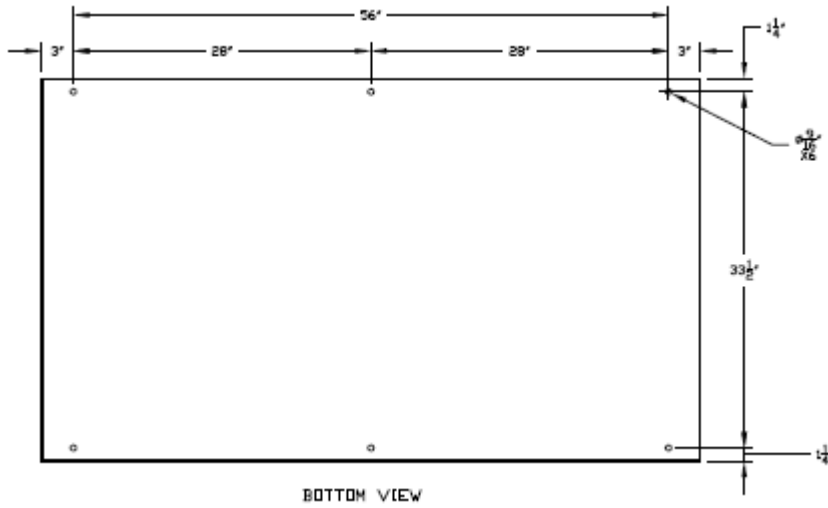
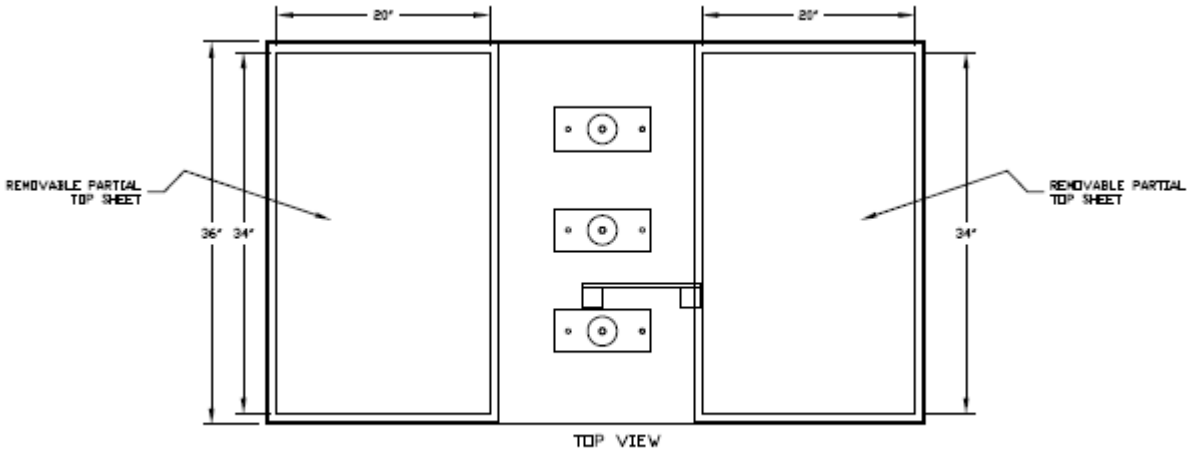
Open Style (Frame Only) 2.4kV_{LL}-7.2kV_{LL}



Open Style (Frame Only) 8.4kV_{LL}-13.8kV_{LL}

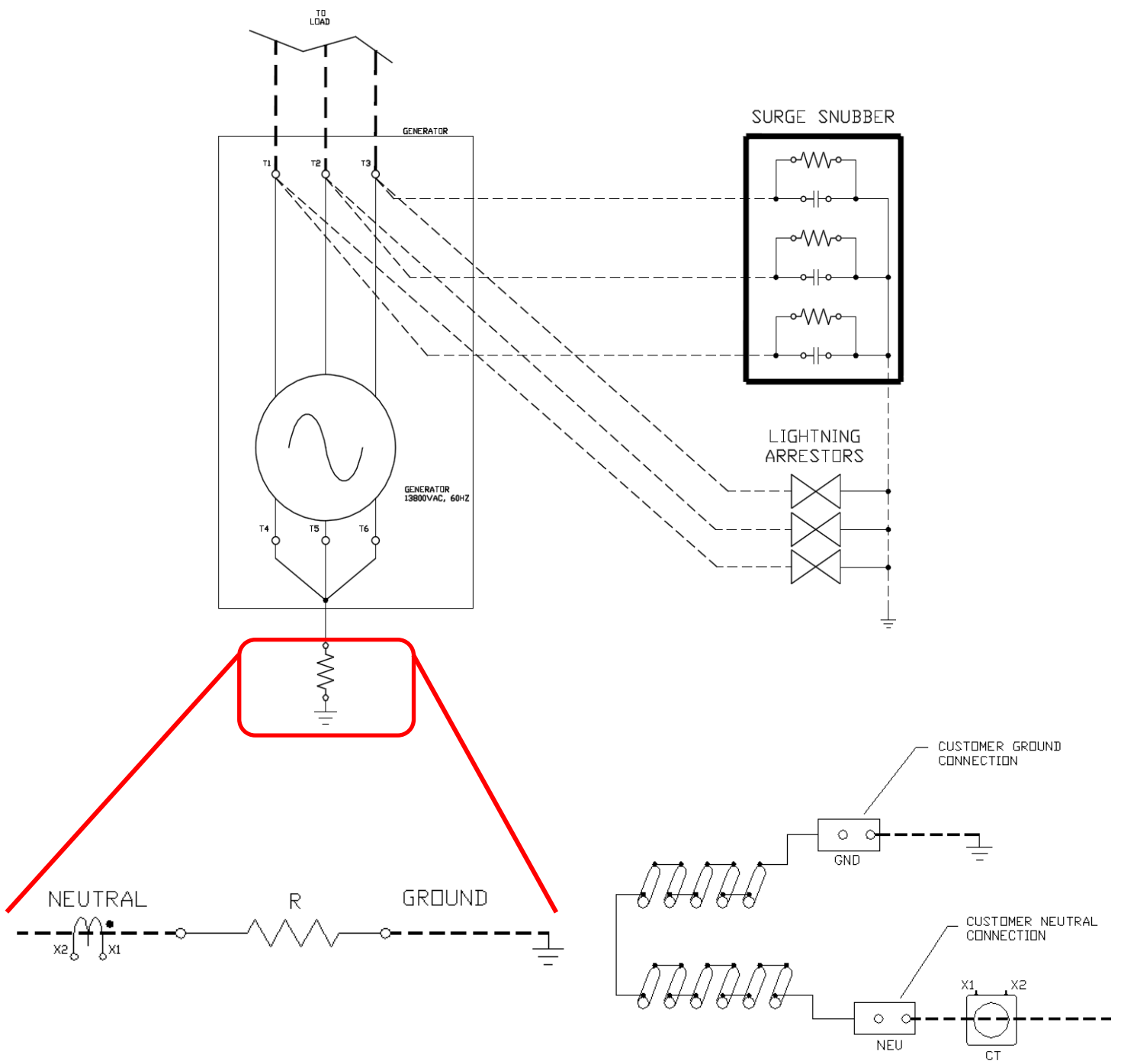


Ceiling/Top Mount 15kV max. Drawing



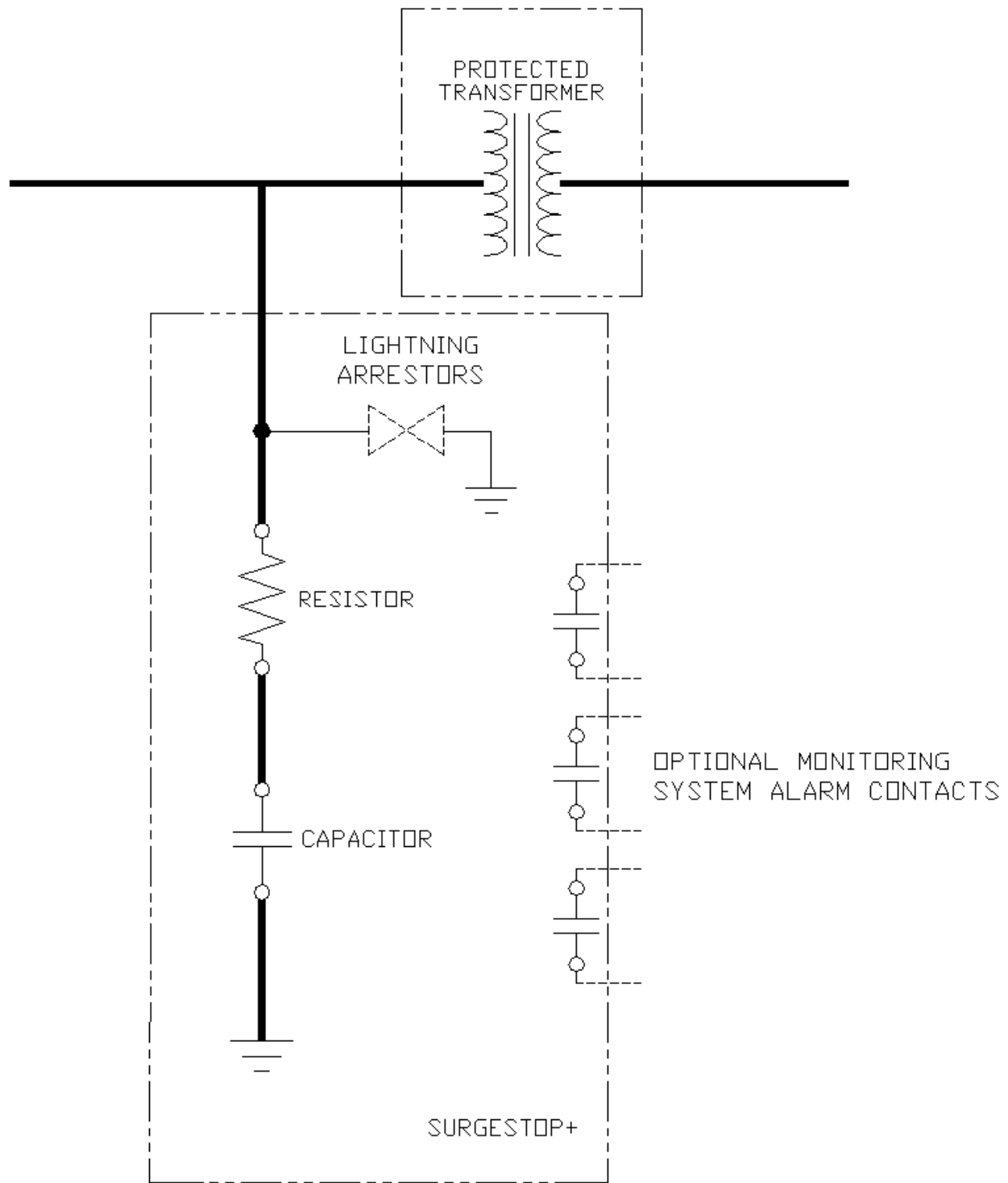
Generator Application Diagram

Generator Transient Protection & Ground Fault Sensing with RC Surge Snubber & Neutral Grounding Resistor



Application Diagram & Schematic

Transformer Transient Protection with RC Surge Snubber & Optional Lightning Arrestors



APT Product Part Number Builder

Coming SOON!

About Advanced Power Technologies



Advanced Power Technologies (APT) is on the cutting edge of the latest engineered power system smart technologies, as it relates to microgrid & storage management, renewable & conventional energy source deployment, demand peak shaving, and facility back-up and co-generation power systems. Located in the central United States and headquartered in Lafayette, Indiana with solutions development engineers around the country, APT provides domestic and international products and services to industry leading companies from around the world. APT engineers have decades of power system experience from working with some of the largest companies in industry. Over the last two decades, we have produced successful solutions for hundreds of large-scale electric power projects involving utility/generator paralleling, transfer, peak shaving, and distribution. We pride ourselves in providing electrical power systems that are engineered and custom built, utilizing state-of-the-art technologies to fit our customer's exact needs. The core of our business is low & medium voltage engineered power systems for a wide range of indoor & outdoor applications, such as:

- ⦿ Utility(ies) and Generator(s) Paralleling/Transfer/Peak Shaving/Distribution Switchgear
- ⦿ Microgrids, Microgrid Master Control Panels, SCADA systems
- ⦿ Containerized Battery Energy Storage Systems (BESS)
- ⦿ Photovoltaic (PV) Solar Power Collection/Distribution & Renewable Energy Storage Systems
- ⦿ Low & High Resistance Grounding Systems, Grounding Systems for Photovoltaic Effective Grounding
- ⦿ High Efficiency Combined Heat and Power Switchgear & Control Systems (CHP, Co-generation)
- ⦿ Outdoor Walk-In Electrical Houses (E-Houses) & Skid-Mounted Switchgear
- ⦿ Motor Control Centers & Motor Control Switchgear
- ⦿ Automatic & Manual Load Transfer Switchgear
- ⦿ Bypass/Isolation & Power Distribution Circuit Breaker Switchboards
- ⦿ Generator/Loadbank Quick Connection Switchgear, Switchboards, & Tap Boxes
- ⦿ Industrial Control Panels

Please see our product webpages on www.appt-power.com for product brochures and relevant information. Actual products may look different from images shown on the website and in brochures, based on actual specifications.

APT cares and understands that each power system is different. We will evaluate various solutions in order to develop the best solution for a site. APT focuses on our ability to a combine several traditional pieces of equipment/functionality into as little of a footprint possible. This saves on space, the cost of equipment, cost of installation, and accomplishes the most optimal/state-of-the-art design your facilities. APT's desires to foster and grow a culture of continued open communication with each customer. Let APT be your source to provide fully engineered power system equipment solutions for the full customer facility on time, on or under budget, and in the smallest footprint possible. We are always available to assist customers and engineers representing customers in the development of complex power solutions for all facility types.