



CONNECT AND PROTECT

Grounding, Bonding & Connectivity Products

For Datacom Applications


nvent

ERICO

Grounding, Bonding & Connectivity Products

nVENT ERICO FACILITY ELECTRICAL PROTECTION

nVent ERICO offers a full range of grounding, bonding and connectivity products for data centers and other datacom applications worldwide. nVent ERICO products include grounding and bonding accessories, surge protection and lightning protection products, and welded electrical connections.

GROUNDING AND BONDING

nVent ERICO offers an extensive line of grounding and bonding products, which includes ground rods and accessories, signal reference grids, chemical ground rods, nVent ERICO Ground Enhancement Material (GEM), couplers, clamps, inspection wells, grounding and perimeter bus bars and ground test instruments.

SURGE PROTECTION

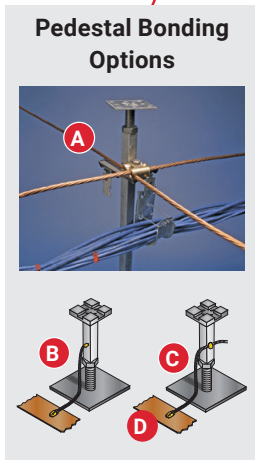
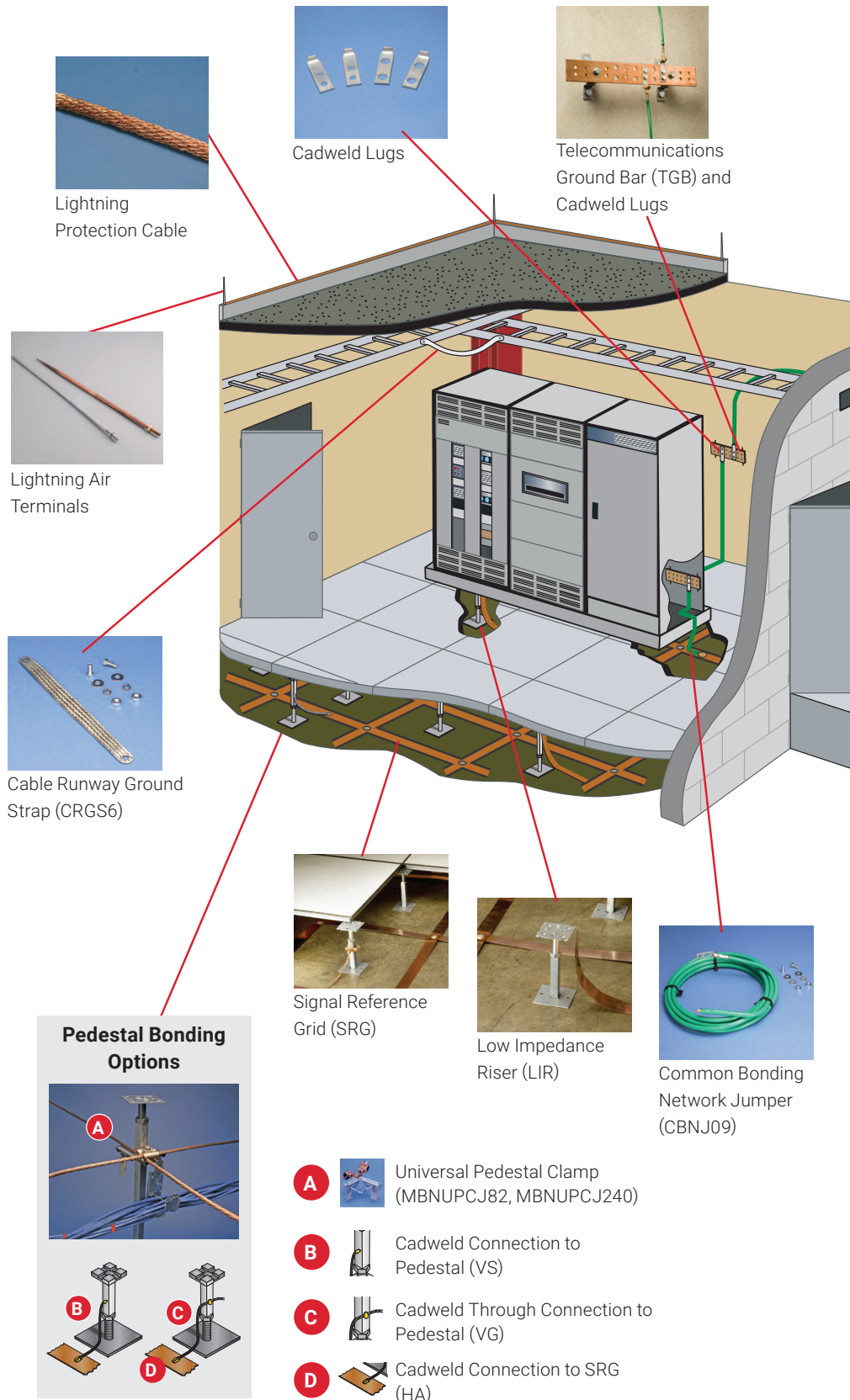
nVent ERICO surge protection products are designed to protect against damaging electrical surges on power and communications lines caused by lightning, building systems and other switching events.

LIGHTNING PROTECTION

Direct and indirect lightning strikes can pose many risks to businesses, including damaging buildings and critical equipment. nVent ERICO lightning protection products offer a variety of solutions to help protect valuable equipment and personnel and to avoid disruption and downtime.

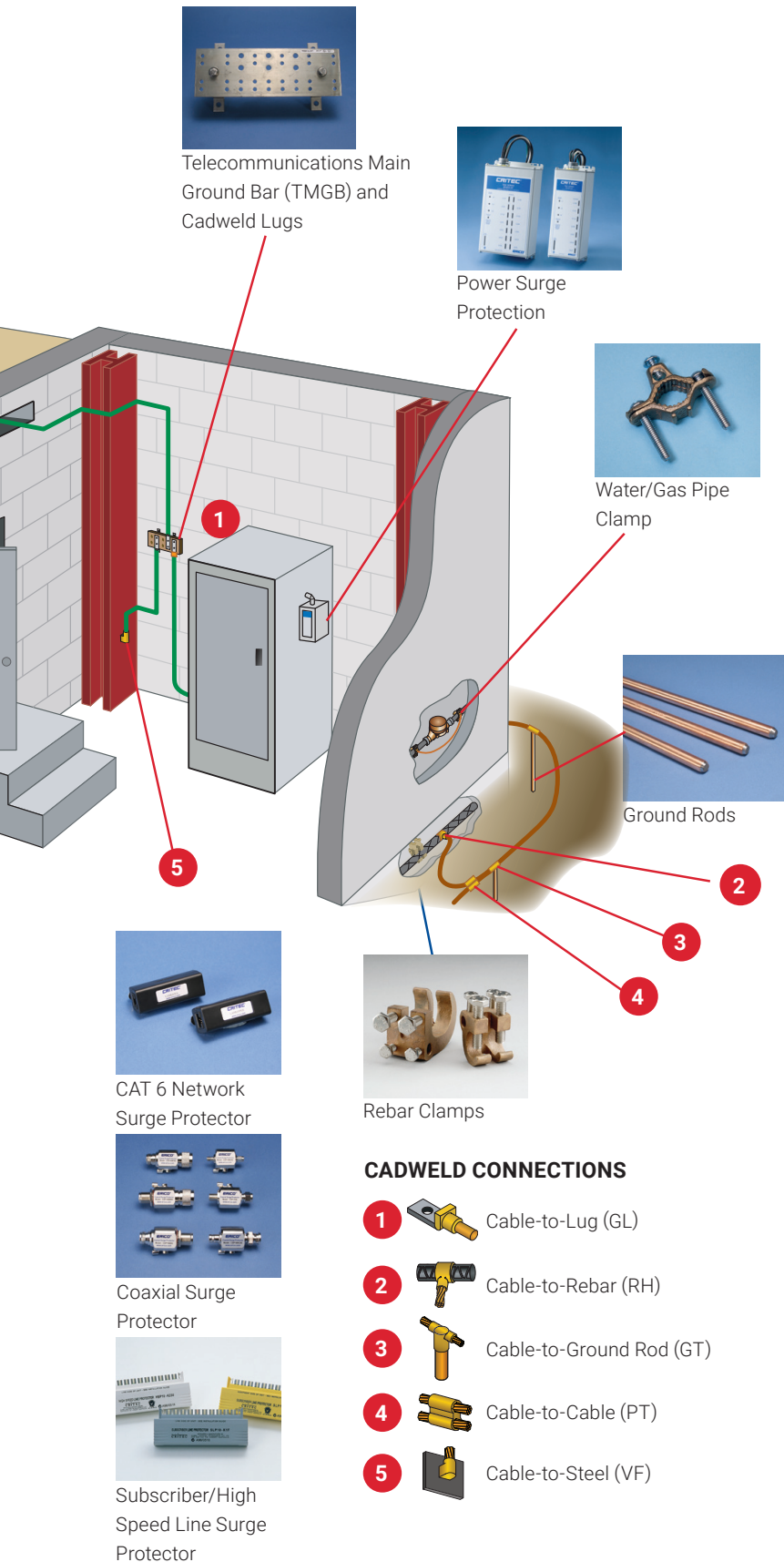
WELDED ELECTRICAL CONNECTIONS

nVent ERICO Cadweld welded electrical connections are used to connect the grounding and bonding conductors to each other and to the ground electrode system, including ground rod electrodes, building steel and rebar. Cadweld connections provide a permanent, low-resistance connection needed to create a long-lasting, reliable bonding network. Cadweld connections will not deteriorate, cannot loosen and are made with inexpensive, lightweight and portable equipment. Cadweld Exolon is a filtered, smokeless connection system designed for making connections indoors.



- A**  Universal Pedestal Clamp (MBNUPCJ82, MBNUPCJ240)
- B**  Cadweld Connection to Pedestal (VS)
- C**  Cadweld Through Connection to Pedestal (VG)
- D**  Cadweld Connection to SRG (HA)

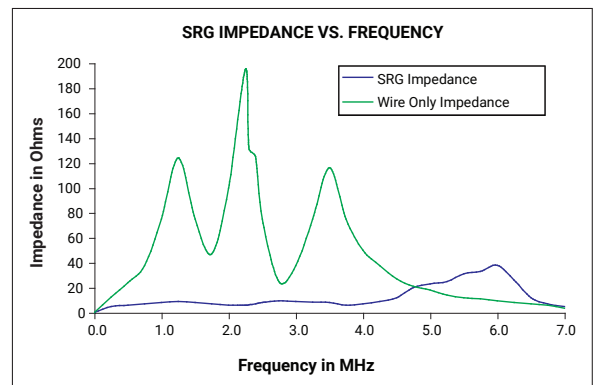
For Datacom Applications



PREFABRICATED SIGNAL REFERENCE GRID (SRG)

The SRG is an integrated high-frequency, low-impedance signal reference grid structure, which consists of a network of flat copper strips welded at the crossovers in accordance with recommendations found in IEEE® 1100 "IEEE Recommended Practice for Powering and Grounding Electronic Equipment." The SRG is also referred to as a "Supplementary Bonding Grid" (SBG) per TIA® 607.

The SRG lies directly on the sub-floor under the raised-floor structure and is used to interconnect metal frames, racks, enclosures, common terminals for signal level power and the electrical distribution grounding system. The SRG is used as a ground reference system for IT equipment by creating an equipotential ground reference plane over a large range of frequencies from DC through the Megahertz range. At high frequencies, flat strip conductors have considerably lower inductive reactance than concentric stranded or solid conductors and the configuration of the SRG results in a lower impedance system, which limits potential differences between data systems and other systems during voltage transients or other power system disturbances. The following graph from IEEE 1100 shows the impedance of an SRG system versus a wire-only grounding system.



SRG FEATURES AND BENEFITS

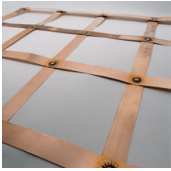
- Economical and maintenance-free
- Recommended in IEEE® 1100
- Reduces common-mode noise
- Increases noise immunity to electric fields
- Reduces capacitive coupled interference
- Compliant with Information Technology Industry Council Information Letter "Guidelines For Grounding Information Technology Equipment (ITE)" and the National Electrical Code.

IEEE is a registered trademark of The Institute of Electrical and Electronics Engineers, Incorporated. TIA is a copyright of Telecommunications Industry Association

NOTE: Cadweld connections shown are typical. Connections for any configuration and conductor are available to meet specific application requirements.

GROUNDING, BONDING & CONNECTIVITY PRODUCTS FOR DATACOM APPLICATIONS

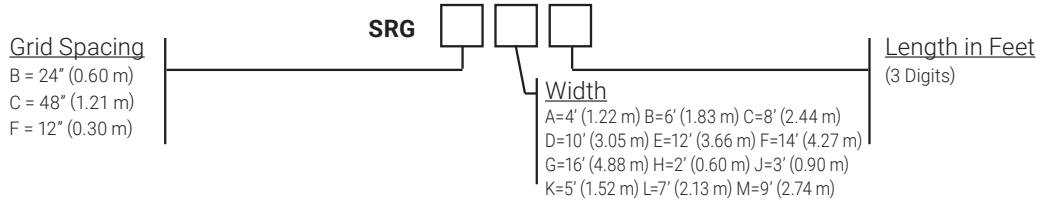
Signal Reference Grid



SRGBD100 2" x 26 (50 x 0.40 mm) Gauge Copper Strip, 2' x 2' (0.60 x 0.60 m) Grid Spacing, 10' x 100' (3.04 x 30.48 m) Roll

SRGBE100 2" x 26 (50 x 0.40 mm) Gauge Copper Strip, 2' x 2' (0.60 x 0.60 m) Grid Spacing, 12' x 100' (3.66 x 30.48 m) Roll

SRGs can also be custom manufactured to suit your needs. SRG Part Numbering System:



SRG Connector



MBNC82, MBNC240 Mesh Bonding Network Connector for bonding pedestal to signal reference grid or mesh.

MBNC82, #8 - #2 AWG, solid or stranded **MBNC240**, #2 - 4/0 AWG, stranded

Connector can be used independent of pedestal in stand-alone applications.



MBNUPCJ82, MBNUPCJ240 7/8" - 2" Round or Square Pedestals

MBNUPCJ82, #8 - #2 AWG, solid or stranded **MBNUPCJ240**, #2 - 4/0 AWG, stranded



EK16 Ground Clamp, #10 - #2 (Up to 25 mm²) conductor. Use on round and square pedestals up to 1" (Up to 25mm diameter pedestal)

Direct-Burial Grounding Clamps



RC70 Heavy-Duty Rebar Clamp, #8 - 2/0 (Up to 8 mm) AWG Conductor, #3 - #6 Rebar (8 - 18 mm)

RC100 Heavy-Duty Rebar Clamp, #8 - 4/0 (Up to 8 mm) AWG Conductor, #6 - #11 (18 - 38 mm) Rebar

Water Pipe Clamps



CWP1JU Bronze Pipe Clamp 1/2" to 1" (13 - 25 mm diameter) pipe, #10 - 2 (Up to 35 mm² conductor) AWG

CWP2JU Bronze Pipe Clamp 1-1/4" to 2" (32 - 50 mm diameter) pipe, #10 - 2 (Up to 35 mm² conductor) AWG

CWP4JU Bronze Pipe Clamp 2-1/2" to 4" (60 - 100 mm diameter) pipe, #10 - 2 (Up to 35 mm² conductor) AWG

Telecom Main Grounding Bus Bars (TMGB) & Telecom Grounding Bus Bars (TGB)



TGBA20L12PT, TGB, 1/4" x 2" x 20" (6.35 x 50.8 x 508 mm), Tin-plated copper, TIA Standards compliant

TGBA25L14PT, TGB, 1/4" x 2" x 24" (6.35 x 50.8 x 610 mm), Tin-plated copper, TIA Standards compliant



TMGBA20L27PT, TMGB, 1/4" x 4" x 20" (6.35 x 101.6 x 508 mm), Tin-plated copper, TIA Standards compliant

TMGBA25L33PT, TMGB, 1/4" x 4" x 24" (6.35 x 101.6 x 610 mm), Tin-plated copper, TIA Standards compliant

*Remove "T" suffix for untinned (plain) copper. Contact nVent ERICO for other sizes and configurations.

Copper-Bonded Ground Rods



615880, Copper-bonded Ground Rod, 5/8" x 8' (14.2 mm Diam. x 2.40 m)

615800, Copper-bonded Ground Rod, 5/8" x 10' (14.2 mm Diam. x 3.05 m)

613480, Copper-bonded Ground Rod, 3/4" x 8' (17.2 mm Diam. x 2.40 m)

613400, Copper-bonded Ground Rod, 3/4" x 10' (17.2 mm Diam. x 3.05 m)

In addition to the above grounding, bonding and SRG products, nVent ERICO can provide design assistance to protect your data center, including the proper selection of power and data surge protection devices, Cadweld exothermic connections to suit individual grounding system requirements and the design of a lightning protection system to comply with any lightning protection standard worldwide. Please contact nVent or an authorized factory representative for further information.



Our powerful portfolio of brands:

CADDY ERICO HOFFMAN RAYCHEM SCHROFF TRACER

WARNING: nVent products shall be installed and used only as indicated in nVent's product instruction sheets and training materials. Instruction sheets are available at nVent.com/ERICO and from your nVent customer service representative. Improper installation, misuse, misapplication or other failure to completely follow nVent's instructions and warnings may cause product malfunction, property damage, serious bodily injury and/or death, and void your warranty.

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ERICO-SB-E774B-E906LT13WWEN-EN-1805

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