Features more than 700 electrical and medical imaging industry publications
Transtector Systems NEW NEMA Enclosures Include:

- Wide range of configurations - 120 VAC, 240 VAC, 12 VDC, PoE-ready and non-powered enclosures
- Compact, ABS, RFD, and Polycarbonate construction
- 150 enclosure configurations and 32 essential accessories
- Weatherproof NEMA design
- Rugged construction ideal for indoor and outdoor applications
- Pad lockable, fully gasketed lids for secure protection
- Options include cooling fans, power sources, heaters, insulated, PoE, terminal blocks, DIN Rail, pre-drilled mounting plates, vents and UL listed configuration

The large selection of in-stock NEMA enclosures are competitively priced to provide high-value performance. Custom modifications are also available. For more information, visit transtector.com or call +1 (208) 635-6400.
NEMA represents nearly 325 electrical equipment and medical imaging manufacturers that make safe, reliable, and efficient products and systems serving seven major markets:

- Building Systems
- Building Infrastructure
- Lighting Systems
- Industrial Products & Systems
- Utility Products & Systems
- Transportation Systems
- Medical Imaging

Our combined industries account for 370,000 American jobs in more than 6,100 facilities covering every state. Our industry produces $124 billion shipments of electrical equipment and medical imaging technologies per year with $42 billion exports.

Expand Market Opportunities

The NEMA methodology is the following: develop performance Standards and promote product interoperability to increase market demand while improving safety to mitigate risks.

Remove Market Barriers

As legislation and regulations are proposed, NEMA represents the collective interests of America's electrical manufacturers at every level of government, including local building codes, infrastructure funding, national energy laws, and international trade.

Acquire Business Analytics

NEMA develops tailored, industry-specific market and statistical programs that benefit participating companies. NEMA also conducts decision-focused scenarios for Member C-Suite consideration along with economic analyses on the impact of legislation and regulations on Member products.

All programs comply with NEMA statistical confidentiality policies.

Advance Imaging Technologies

NEMA is a leading Standards development organization for medical imaging and radiation therapy equipment. Medical Imaging Technology Alliance includes the majority share of the global market for diagnostic imaging, radiation therapy, and radiopharmaceuticals.

NEMA Technical Library

From batteries, enclosures, and switchgear to lighting, motors, and medical imaging, NEMA publishes more than 700 electrical Standards and technical papers that cover millions of Member products.
“The Standards Tracker takes all the worry out of wondering when new and updated versions will be posted or whether my customers are using the latest version.”

—J. Parry

NEMA Standards are often approved as American National Standards under the procedures of the American National Standards Institute (ANSI), usually under the Canvass Method.
Top 10 Standards by Volume

- **ANSI Z535** Safety Alerting Standards, a series of American National Standards for safety signs, symbols, and colors
- **ANSI/NEMA MW 1000** Magnet Wire
- **NEMA 250** Enclosures for Electrical Equipment
- **NEMA MG 1** Motors & Generators
- **NEMA PB 1.1** General Instructions for Proper Installation, Operation, and Maintenance of Panelboards Rated 600 V or Less
- **NEMA NU 2** Performance Measurements of Positron Emission Tomographs (PET)
- **NEMA NU 1** Performance Measurements of Gamma Cameras
- **ANSI C84.1** American National Standard for Electric Power Systems and Equipment—Voltage Ratings (60 Hz)
- **ANSI C12.20** American National Standard for Electricity Meters—0.1, 0.2, and 0.5 Accuracy Classes
- **ANSI C136.31** American National Standard for Roadway and Area Lighting Equipment—Luminaire Vibration

New Releases in 2019

- **ANSI/NEMA MW 1000-2018** Magnet Wire
- **NEMA MS 14-2019** Characterization of Radiofrequency (RF) Coil Heating in Magnetic Resonance Imaging Systems
- **NEMA ASHRAE P90.1-2019** A NEMA White Paper: ASHRAE 90.1-2016 Building Submetering Requirements
- **NEMA EVSE 1-2018** EV Charging Network Interoperability Standard—A Contactless RFID Credential for Authentication (UR Interface)
- **ANSI C78.53-2019** American National Standard for Electric Lamps—Performance Specifications for Direct Replacement LED (Light Emitting Diode) Lamps
- **ANSI/NEMA HN 1-2019** Manufacturer Disclosure Statement for Medical Device Security
- **NEMA/MITA 2-2019** Requirements for Servicing of Medical Imaging Equipment
- **NEMA NU 1-2018** Performance Measurements of Gamma Cameras
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The National Electrical Manufacturers Association (NEMA) represents nearly 325 electrical equipment and medical imaging manufacturers that make safe, reliable, and efficient products and systems in seven sectors. Our combined industries account for more than 370,000 American jobs in more than 6,100 facilities covering every state. These industries produce $124 billion in electrical and medical imaging shipments per year, with $42 billion exported.

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2020 ELECTRICAL STANDARDS & PRODUCTS GUIDE
At Encore Wire, we understand that your success is the foundation of our success. That’s why we work tirelessly to understand and exceed your expectations, to consistently perform at the highest levels, and most importantly, to keep our promises.

With unbeatable customer service, nimble operations, and industry-leading delivery times, there’s no other company who works harder to earn your trust and ensure your success. Together, we succeed.
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## AFCIs

### Circuit Breakers (CB)
Addresses CB AFCIs. AFCIs are available as circuit breakers and as receptacles (Outlet Branch Receptacle [OBR]). CB AFCIs are tested and Listed to UL-1699 requirements. Both types can be installed per the 2014 *National Electrical Code*®. A stand alone paper is available for each AFCI type. This paper addresses CB AFCIs. The OBC AFCI is described in a similar document available at www.nema.org/Standards/Pages/Outlet-Branch-Receptacle.aspx. Cross-referencing the two papers provides the user/specifier/installer with all the important facts to decide which type best suits the intended installation.

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### Outlet Branch Receptacle (OBC)
Addresses OBC AFCIs. AFCIs are available as circuit breakers (CBs) and as receptacles. OBC AFCIs are tested and Listed to UL 1699A requirements. Both types can be installed per the 2014 *National Electrical Code*®. A stand alone paper is available for each AFCI type. The CB AFCI is described in a similar document available at www.nema.org/Standards/Pages/Circuit-Breakers.aspx. Cross-referencing the two papers provides the user/specifier/installer with all the important facts to decide which type best suits the intended installation.

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## Arc Welding

### ANSI C78.5-2017
**American National Standard for Electric Lamps—Specifications for Performance of Self-ballasted Compact Fluorescent Lamps**
This Standard specifies the performance requirements together with the test methods and conditions required to show compliance of self-ballasted compact fluorescent lamps up to 60 W which are intended for domestic and similar general lighting purposes.

**$62**

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### ANSI C82.5-2016
**American National Standard for Reference Ballasts—High-Intensity-Discharge and Low-Pressure Sodium Lamps**
Describes the essential features and operating characteristics of reference ballasts for high-intensity discharge and low-pressure sodium lamps to operate on 60-Hz sinusoidal ballast systems.

**$152**

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### ANSI/IEC 60974-1-2008
**American National Standard for Arc-Welding Equipment—Part 1 Welding Power Sources**

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### ANSI/IEC 60974-2-2009
**American National Standard for Arc-Welding Equipment—Part 2 Liquid Cooling Systems**
Specifies safety and construction requirements for industrial and professional liquid cooling systems used in arc welding and allied processes to cool torches. An adoption, with U.S. differences, of the second edition of IEC 60974-2 (2007).

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### ANSI/IEC 60974-3-2009
**American National Standard for Arc-Welding Equipment—Part 3 Arc Striking and Stabilizing Devices**

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### ANSI/IEC 60974-5-2009
**American National Standard for Arc-Welding Equipment—Part 5 Wire Feeders**
Details requirements for safety and performance for industrial and professional equipment used in arc welding and allied processes to feed filler wire. An adoption, with U.S. differences, of the second edition of IEC 60974-5 (2007).

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### ANSI/IEC 60974-7-2009
**American National Standard for Arc-Welding Equipment—Part 7 Torches**
Specifies safety and construction requirements for torches (consisting of torch bodies, cable-hose assemblies and other components) used in arc welding, plasma cutting and other allied processes. An adoption, with U.S. differences, of the second edition of IEC 60974-7 (2005).

**$101**

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ANSI/IEC 60974-8-2008
American National Standard for Arc-Welding Equipment—Part 8 Gas Consoles for Welding and Plasma Cutting Systems
Specifies requirements for safety and performance for gas consoles intended to be used with combustible gases or oxygen. An adoption, with U.S. differences, of the first edition of IEC 60974-8 (2004).
$95
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ANSI/IEC 60974-11-2009
American National Standard for Arc-Welding Equipment—Part 11 Electrode Holders
$76
Buy Now

ANSI/IEC 60974-12-2009
American National Standard for Arc-Welding Equipment—Part 12 Coupling Devices for Welding Cables
Enumerates safety and performance requirements of coupling devices for cables used in welding (except underwater welding) and allied processes. The coupling devices covered are designed for connection and disconnection without the use of tools. An adoption, with U.S. differences, of the second edition of IEC 60974-12 (2005).
$76
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Electric Arc-Welding Power Sources
Defines performance characteristics, ratings and test procedures for AC and DC arc-welding apparatus and associated equipment, as well as recommended installation and test procedures for high-frequency stabilized arc-welding machines.
$74
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Semi-Automatic Wire-Feed Systems for Arc Welding
Defines construction standards, performance characteristics and test procedures for wire-feed systems used in most types of arc-welding processes.
$53
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NEMA EW 4-2009
Graphic Symbols for Arc-Welding and Cutting Apparatus
Establishes graphic symbols for arc-welding and cutting apparatus that identify controls, indicators, connection points, junctions and processes. Usage examples are also provided.
$181
Buy Now

NEMA EW 6-2006
Guidelines for Precautionary Labeling for Arc-Welding and Cutting Products
Provides guidelines for manufacturers and suppliers in the arc-welding and cutting industry to assist them in preparation of precautionary labels for their products. Guidelines cover content, format and placement of text-only, text-and-symbol, symbol-only and multi-language labels.
$106
Buy Now

NEMA EW 9-2012
Arc Welding Power Sources—Energy Consumption Testing and Labeling
Provides the necessary guidance for manufacturers and importers of arc welding power source equipment to uniform energy consumption reporting requirements of the Mexican Law for Sustainable Energy Use, published in the Official Gazette of Federation, on November 28, 2008, article 23.
$67
Buy Now

Batteries

American National Standard for Portable Primary Cells and Batteries with Aqueous Electrolyte—General and Specifications
Applies to portable primary cells and batteries with aqueous electrolyte and a zinc anode.
$147
Buy Now

ANSI C18.1M, Part 2-2019
American National Standard for Portable Primary Cells and Batteries with Aqueous Electrolyte—Safety Standard
 Specifies performance requirements for portable primary batteries with aqueous electrolyte and zinc anode (non-lithium) to ensure their safe operation under normal use and reasonably foreseeable misuse.
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Own a complete set of all NEMA Standards.
$37,195
ANSI C18.2M, Part 1-2013
American National Standard for Portable Rechargeable Cells and Batteries—General and Specifications
Applies to portable rechargeable or secondary cells and batteries based on the following electrochemical systems nickel cadmium, nickel metal hydride and lithium ion.
$124
Buy Now

ANSI C18.2M, Part 2-2014
American National Standard for Portable Rechargeable Cells and Batteries—Safety Standard
 Specifies performance requirements for standardized portable lithium ion, nickel cadmium and nickel metal hydride rechargeable cells and batteries to ensure their safe operation under normal use and reasonably foreseeable misuse.
$62
Buy Now

ANSI C18.3M, Part 1-2019
American National Standard for Portable Lithium Primary Cells and Batteries—General and Specifications
Applies to portable lithium primary cells and batteries, including the following electrochemical systems lithium carbon monofluoride, lithium manganese dioxide and lithium iron disulfide.
$117
Buy Now

ANSI C18.3M, Part 2-2019
American National Standard for Portable Lithium Primary Cells and Batteries—Safety Standard
 Specifies tests and requirements for primary cells and batteries, including lithium carbon monofluoride, lithium manganese dioxide and lithium iron disulfide, to ensure their safe operation under normal use and reasonably foreseeable misuse.
$114
Buy Now

ANSI C18.4M-2017
American National Standard for Portable Cells and Batteries—Environmental
Sets forth some general considerations that should be taken into account when developing battery standards that balance the need to achieve the intended product performance while reducing adverse environmental effects, and outlines ways in which provisions in battery standards might affect the environment during the stages of its life cycle.
$113
Buy Now

NEMA BU 1.1-2010
General Instructions for Handling, Installation, Operation and Maintenance of Busway Rated 600 V or Less
Covers products for distribution of electric power at 600 V or less, consisting of enclosed sectionalized prefabricated busbars rated at 100 A or more and associated structures and fittings, classified as follows feeder busways (indoor or outdoor), plug-in busways (indoor only) and accessories required to complete the busway system.
$110
Buy Now

NEMA BU 1.2-2002 (R2008, R2013)
Application Information for Busway Rated 600 V or Less
Covers products for distribution of electric power at 600 V or less, consisting of enclosed sectionalized prefabricated busbars rated at 100 A or more.
$82
Buy Now

NEMA CB 1-2000 (R2012)
Brushes for Electrical Machines
Provides definitions, dimensions and tolerances, test procedures for physical properties, and test procedures for shunt connections for brushes used in the electrical manufacturing industry. Included are carbon, carbon graphite, graphite, electrographite, metal graphite, metal impregnated and resin-bonded brushes.
$237
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<td>This edition of NEMA CG 1 harmonized dimensions with two IEC documents (IEC/TR 62157 – Cylindrical Machined Carbon Electrodes—Nominal Dimensions and IEC 60239—Graphite electrodes for electric arc furnaces—Dimensions and designation). Therefore electrode dimensions are not contained in this document and instead reference directly to these IEC document.</td>
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<td><strong>NEMA CG 2-2004</strong> POWDERED GRAPHITE</td>
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<td>Covers terminology and test methods for those physical and chemical properties relevant to the material characterization of powdered graphite, generally less than 75 microns, used in the electrical industry.</td>
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<td>Covers the application, installation, location, performance and maintenance of school communications systems and their components associated with the life safety of students, faculty, administrative staff and all other occupants affiliated with educational facilities.</td>
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<td><strong>NEMA SB 1-2014</strong> QUALITY INFORMATIONAL GUIDE FOR AUTOMATIC FIRE DETECTION AND ALARM SYSTEMS</td>
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<td>Provides guidance to Authorities Having Jurisdiction (AHJ) for establishing programs to ensure highly reliable fire detection and alarm systems in his or her community. This document contains a recommended model ordinance to assist AHJ through improving the reliability of existing systems, including dealing with false, or nuisance, alarms.</td>
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<tr>
<td><strong>NEMA SB 2-2016</strong> TRAINING MANUAL ON FIRE ALARM SYSTEMS</td>
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<td>Covers terminology, basic theory of operation, installation details, system start-up techniques and general maintenance of fire alarms, and is intended to be used as source material for the fire service, fire marshals and all fire alarm sales, design and installation organizations. It is ideal as a reference guide and can be used in a classroom setting for learning about fire alarm systems.</td>
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<td><strong>NEMA SB 7-2018</strong> APPLICATIONS GUIDE FOR CARBON MONOXIDE ALARMS AND DETECTORS</td>
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<td>Covers carbon monoxide (CO) detection devices, including single- and multiple-station CO alarms and system-connected CO detectors and sensors connected to a control unit.</td>
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<td><strong>NEMA SB 10-2016</strong> AUDIO STANDARD FOR NURSE CALL SYSTEMS</td>
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<td>Contains requirements and test procedures for evaluating audio quality of installed nurse call systems.</td>
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<td><strong>NEMA SB 11-2017</strong> GUIDE FOR PROPER USE OF SYSTEM SMOKE DETECTORS</td>
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<td>Provides information about applications of smoke detectors used in conjunction with fire alarm systems. Outlines operating characteristics of detectors and environmental factors that aid or prevent their operation.</td>
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<td><strong>NEMA SB 13-2012</strong> GUIDE FOR PROPER USE OF SMOKE DETECTORS IN DUCT APPLICATIONS</td>
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<tr>
<td>Provides information concerning the proper use of smoke detectors in duct applications.</td>
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<tr>
<td><strong>NEMA SB 20-2015</strong> GUIDE TO UNDERSTANDING SMOKE CONTROL SYSTEMS</td>
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<td>This guide is intended to offer a general understanding of smoke control systems to individuals who have a need or desire for solid basic information but do not need the in-depth knowledge necessary to design smoke control systems.</td>
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<tr>
<td><strong>NEMA SB 23-2016</strong> GUIDE FOR APPLICATION OF FLAME DETECTION</td>
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<td>Provides information concerning the proper use of flame-detection systems. It covers the major technologies used for flame detection, application, selection, installation, and testing.</td>
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<tr>
<td><strong>NEMA SB 50-2014</strong> EMERGENCY COMMUNICATIONS AUDIO INTELLIGIBILITY APPLICATIONS GUIDE</td>
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<td>Assists specifiers and Authorities Having Jurisdiction with the concepts and terminology used to enhance intelligibility for emergency voice paging systems.</td>
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NEMA SBP 1-2010  
Looking Ahead to UL 2560  
Discusses the upcoming UL Standard for minimum performance of emergency call systems in senior living communities, including likely requirements.  
No charge  
Buy Now

NEMA SBP 2-2014  
Multi-Criteria Detectors (MCD)  
Provides an introduction to the next evolution in life saving early warning smoke and fire detection.  
No charge  
Buy Now

NEMA SBP 3-2017  
The Changing Communications within Fire Alarm System Reporting  
Explains options for fire alarm system communications.  
No charge  
Buy Now

NEMA SBP 4-2015  
Low Frequency Audible Signals  
Addresses the need for and the development of the low-frequency audible signal used in fire alarms, carbon monoxide (CO) alarms, and fire or CO alarm systems.  
No charge  
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NEMA SBP 5-2015  
Considerations in Planning Code Call Implementation in Health Care Facilities  
Assists facility developers and owners in designing a code call system and associated call handling processes, with the purposes of optimizing response time and complying with regulatory requirements.  
$42  
Buy Now

NEMA SBP 6-2008  
UL 1069 Standard for Hospital Signaling and Nurse Call Equipment White Paper  
These requirements cover the individual units employed to form a hospital nurse call system (NCS) intended to provide audible and visual communication between patients and hospital personnel. They also cover miscellaneous signaling equipment employed in hospitals.  
No charge  
Buy Now

Conduits

Annular Space Protection of Openings Created by Penetrations of Tubular Steel Conduit, A Review of UL Special Service Investigation, File NC 546, Project 90NK11650  
Summarizes the results of a study of various annular space protection materials installed in a concrete block wall, concrete floor assemblies, gypsum wallboard/wood joist/plywood deck floor-ceiling assemblies and two varieties of gypsum wallboard/steel stud wall assemblies.  
No charge  
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Conduit-in-Casing Construction  
Lists the types of casings, conduits and spacers that are used, provides details about how the conduit-in-casing process works, and explains the process of laying power/communication cables under a surface obstruction.  
No charge  
Buy Now

ANSI/NEMA FB 1-2014  
Fittings, Cast Metal Boxes and Conduit Bodies for Conduit, Electrical Metallic Tubing (EMT) and Cable  
Covers fittings that are a part of electrical raceway and cable systems designed for use as intended by the requirements of NFPA 70. Specifically covers fittings for use with non-flexible tubular raceways—rigid and intermediate metal conduit and EMT—and with flexible raceways and cable. Adopted by the U.S. Department of Defense.  
$123  
Buy Now

NEMA FB 2.10-2013  
Selection and Installation Guidelines for Fittings for Use with Non-Flexible Electrical Metal Conduit or Tubing (Rigid Metal Conduit, Intermediate Metal Conduit and Electrical Metallic Tubing)  
Offers practical information on correct product selection and industry-recommended practices for installation of fittings for non-flexible conduit and electrical metallic tubing in accordance with the NEC®.  
$88  
Buy Now

NEMA FB 2.20-2014  
Selection and Installation Guidelines for Fittings for Use with Flexible Electrical Conduit and Cable  
Offers practical information on correct product selection and industry-recommended practices for installation of fittings for flexible conduit or cable in accordance with the NEC®.  
$132  
Buy Now

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NEMA FB 2.40-2016
Installation Guidelines for Expansion and Expansion/Deflection Fittings
Provides recommended installation practices for fittings used to compensate for expansion and contraction in electrical raceways due to shear and lateral forces. When properly selected and installed, these fittings prevent harmful stresses in the raceway system and to supporting structures by safely permitting three-dimensional (linear, angular, and parallel) movement of the raceway.
$88
Buy Now

NEMA 5RN 2189-2003
User Guide to Product Specifications for Metal Electrical Conduit and Tubing
Provides information on the proper identification of U.S. Standards applicable to metal electrical conduit and tubing.
$41
Buy Now

NEMA RN 1-2018
Polyvinyl Chloride (PVC) Externally Coated Galvanized Rigid Steel Conduit and Intermediate Metal Conduit
Covers continuous PVC exterior coatings and corrosion-resistant interior coatings, as well as galvanized steel conduit, galvanized steel IMC, threaded couplings and elbows to which they may be applied.
$64
Buy Now

NEMA RN 2-1997
Packaging of Master Bundles for Electrical Rigid Metal Conduit (ERMC)—Steel, Electrical Intermediate Metal Conduit (EIMC)—Steel and Electrical Metallic Tubing (EMT)—Steel
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<td>American National Standard for Switchgear—Indoor AC Medium Voltage Switches for Use in Metal-Enclosed Switchgear—Conformance Test Procedures</td>
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ANSI C78.21-2011 (R2016) American National Standard for Electric Lamps—PAR and R Shapes
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ANSI C78.24-2001 American National Standard for 2 in. (51 mm) Integral-Reflector Lamps with Front Covers and GU5.3 or GX5.3 Bases
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ANSI C78.41-2016 American National Standard for Electric Lamps—Guidelines for Low-Pressure Sodium (LPS) Lamps
Describes the physical and electrical requirements of the principal types of single-ended LPS lamps. The electrical data provides the specific basis for ballast requirements for these lamps.
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<td>ANSI C78.42-2009 (R2016)</td>
<td>American National Standard for Electric Lamps—High-Pressure Sodium (HPS) Lamps</td>
<td>Sets forth the physical and electrical requirements for HPS lamps to ensure performance and interchangeability. Also provides the basis for the electrical requirements for ballasts and ignitors, as well as the lamp-related requirements for luminaires.</td>
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<td>ANSI C78.43-2017</td>
<td>American National Standard for Electric Lamps—Single-Ended Metal Halide Lamps</td>
<td>Sets forth the physical and electrical requirements for single-ended metal halide lamps operated on 60 Hz ballasts to ensure interchangeability and safety.</td>
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<td>ANSI C78.44-2016</td>
<td>American National Standard for Electric Lamps—Double-Ended Metal Halide Lamps</td>
<td>Sets forth the physical and electrical requirements for double-ended metal halide lamps operated on 60 Hz ballasts to ensure interchangeability and safety.</td>
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<td>ANSI C78.45-2016</td>
<td>American National Standard for Electric Lamps—Self-Ballasted Mercury Lamps</td>
<td>Sets forth the physical and electrical requirements for self-ballasted mercury lamps operated on 60 Hz supply lines to ensure interchangeability and safety. Also provides the lamp-related requirements for luminaires. Luminous flux and lamp color are not part of this Standard.</td>
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<td>ANSI C78.50-2016</td>
<td>American National Standard for Electric Lamps—Assigned LED Lamp Codes</td>
<td>Provides physical and electrical characteristics of the group of integrally ballasted Solid State Lighting (SSL) lamps that have standardized characteristics. Lamps with clear, frosted, opaque, and lens end windows and with various reflector and/or emitting coatings are covered. Lamps covered in this Standard contain LED based light sources.</td>
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<td>ANSI C78.51-2016</td>
<td>American National Standard for Electric Lamps—LED (Light Emitting Diode) Lamps—Method of Designation</td>
<td>Describes a system for the designation of integrally ballasted Solid State Lighting (SSL) lamps that have standardized characteristics. Lamps with clear, frosted, opaque, or prescription lenses and with various reflector and/or emitting coatings are covered. Lamps covered in this Standard contain LED-based light sources.</td>
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<td>ANSI C78.52-2017</td>
<td>American National Standard for Electric Lamps—LED (Light Emitting Diode) Direct Replacement Lamps—Method of Designation</td>
<td>Describes a system for the designation of LED lamps that are direct replacements for existing ANSI standardized non-LED lamps. Lamps covered in this Standard contain LED-based light sources.</td>
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<tr>
<td>ANSI C78.53-2019</td>
<td>American National Standard for Electric Lamps—Performance Specifications for Direct Replacement LED (Light Emitting Diode) Lamps</td>
<td>Describes the electrical, mechanical, and photometric characteristics of LED lamps that are direct replacements for existing ANSI standardized non-LED lamps. Lamps covered in this Standard contain LED-based light sources.</td>
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<td>ANSI C78.54-2019</td>
<td>American National Standard for Electric Lamps—Specification Sheet for Tubular Fluorescent Replacement and Retrofit LED Lamps</td>
<td>Purpose is to standardize the Tubular LED (TLED) Lamp specification sheet, or data reporting format, as the means of communication of critical lamp characteristics. Covers all types of fluorescent replacement and retrofit TLED systems.</td>
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<td>ANSI C78.79-2014</td>
<td>American National Standard for Electric Lamps—Nomenclature for Envelope Shapes Intended for Use with Electric Lamps</td>
<td>Describes a system of nomenclature that provides designations for envelope shapes used for all electric lamps. The purpose is to include solid state light sources that are functional applications of traditional lamps.</td>
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American National Standard for Electric Lamps—Double-Capped Fluorescent Lamps—Dimensional and Electrical Characteristics
Sets forth the physical and electrical characteristics of the principal types of fluorescent lamps intended for application on conventional line frequency circuits, and electronic high-frequency (HF) circuits. Some data sheets may specify more than one circuit application.

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American National Standard for Electric Lamps—Specifications for Fluorescent Lamp Starters
Covers performance of glow switch starters used with preheat-type fluorescent and similar discharge lamps. It does not include starters that are an integral part of a lamp or manually operated switches that may be used for lamp starting.

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American National Standard for Tubular Tungsten Halogen (TH) Lamps—Physical Characteristics
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ANSI C78.261-1977 (R2007)
American National Standard for Specification for Tubular Incandescent Infrared Lamps
Provides specifications for tubular incandescent infrared lamps.

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ANSI C78.357-2010
American National Standard for Incandescent Lamps—Tungsten Halogen Lamps (Non-Vehicle)
Specifies performance requirements for various single-ended, double-ended, integral reflector, and PAR tungsten halogen lamps, with rated voltages up to 277 V, and used for projection, photographic, (floodlight), special purpose, general lighting service (GLS), and stage-studio lighting applications.

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ANSI C78.370-1997 (R2018)
American National Standard for Method of Designation for Electric Lamps—Photographic, Stage and Studio
Describes a system for the designation of photographic, stage and studio lamps.

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ANSI C78.370.390-2002

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ANSI C78.374-2015
American National Standard for Electric Lamps—Light-Emitting Diode Package Specification Sheet for General Illumination Applications
Specifies the standardized white light-emitting diode (LED) package specification sheet, or data reporting format, as the means of communication between LED package producers and users in general illumination applications. The minimum defined contents and format of the specification sheet are provided.

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ANSI C78.375A-2014
American National Standard for Electric Lamps—Fluorescent Lamps—Guide for Electrical Measures
Describes the procedures to be followed and the precautions to be observed in obtaining uniform and reproducible measurements of the electrical characteristics of fluorescent lamps under Standard conditions when operated on alternating current (ac) circuits. These methods are applicable both to lamps having hot cathodes—switch-start (preheat-start), rapid-start (continuously heated cathodes), or instant-start—and to lamps of the cold-cathode variety.

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ANSI C78.376-2014
American National Standard for Electric Lamps—Specifications for the Chromaticity of Fluorescent Lamps
Covers the objectives and tolerances for the chromaticity of fluorescent lamps at their normal 100 hour rating point. The colors included are 2700K, 3000K/warm white, 3500K/white, 4000K/4100K/cool white, 5000K, and 6500K/daylight.

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American National Standard for Electric Lamps—Specifications for the Chromaticity of Solid State Lighting (SSL) Products
Specifies the range of chromaticities recommended for general lighting with SSL products and ensures that the white light chromaticities of the products can be communicated to consumers. Applies to LED-based SSL products with control electronics and heat sinks incorporated.

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American National Standard for Electric Lamps—Classification of the Beam Patterns of Reflector Lamps
Describes a system for classification of beam patterns and beam angles of reflector lamps and defines a method of describing light output.
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ANSI C78.380-2016
American National Standard for Electric Lamps—High-Intensity Discharge (HID)—Method of Designation
Describes a system for the designation of high-intensity discharge lamps, including compact, enclosed-arc discharge light sources such as mercury, metal halide, high-pressure sodium, and similar types of lamps. For convenience, low-pressure sodium lamps, although technically not high-intensity discharge lamps, are included with the group.
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ANSI C78.381-1961 (R2011, S2016)
American National Standard for Electric Lamps—Method for the Designation of Glow Lamps
Describes a designation system for glow lamps. Describes a designation system for glow lamps.
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ANSI C78.385-1961 (S2016)
American National Standard for Electric Lamps—Methods of Measurement of Glow Lamps
Outlines the procedures to be followed and the precautions to be observed in testing glow lamps.
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ANSI C78.389-2004 (S2018)
American National Standard for Electric Lamps—High-Intensity Discharge (HID)—Methods of Measuring Characteristics
Describes the procedures to be followed and the precautions to be observed in measuring the electrical characteristics of HID lamps as outlined in the ANSI specifications for mercury, high-pressure sodium and metal halide lamps, as referenced in Clause 2, Normative References.
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ANSI C78.390-2006 (R2015)
American National Standard for Electric Lamps—Miniature and Sealed-Beam Incandescent Lamps—Method of Designation
Describes a voluntary system for the method of designation of miniature and sealed-beam lamps. The method is intended to provide lamp manufacturers a means to request a designation.
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ANSI C78.391-2004 (R2009, R2016)
American National Standard for Electric Lamps—Characteristics of Subminiature Lamps of T1 and T1-3/4 Shapes
This Standard sets forth the physical and electrical characteristics of those groups of subminiature incandescent lamps with T1 and T1-3/4 bulb shapes. Lamps with various base or termination configurations are included.
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ANSI C78.682-1997 (R2016)
American National Standard for Electric Lamps—Standard Method of Measuring the Pinch Temperature of Quartz Tungsten-Halogen Lamps
Specifies details of the type of thermocouple to be used to measure the pinch temperature of quartz-tungsten-halogen lamps, the methods of preparation of the lamp and thermocouple, and the measurement to be made.
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ANSI C78.901-2016
American National Standard for Electric Lamps—Single-Based Fluorescent Lamps—Dimensional and Electrical Characteristics
Sets forth the physical and electrical characteristics required to ensure interchangeability and to assist in the proper application of single-based fluorescent lamps.
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ANSI C78.1195-2016
American National Standard for Electric Lamps—Double-Capped Fluorescent Lamps—Safety Specifications
Adopted by ANSI ASC C78 as a nationally acknowledged international Standard, this revision of IEC 61195, ed2.2 (2014-09) includes deviations for clauses 2 and 3.
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American National Standard for Electric Lamps—70 W, M85 Double-Ended Metal Halide Lamps
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ANSI C78.1401-2004 (R2009, R2016)
American National Standard for Electric Lamps—Dimensions for Projection Lamps—Double-Contact, Medium Ring (Special B), Base-up Type
This Standard establishes the dimensions essential to the interchangeability of lamps of the double-contact, medium ring (Special B), base-up type. It is not intended to prescribe either operating characteristics or details of design, such as the shape of the ventilation ports or the method of attachment of the prefocus ring to the base.  
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ANSI C78.1402-2004 (S2018)
American National Standard for Electric Lamps—Four-Pin, Prefocus, Base-Down Type
Establishes the dimensions essential to the interchangeability of four-pin, prefocus projection lamps for base-down operation of T10 and T12 bulb sizes.  
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ANSI C78.1403-1997
Defines the dimensional limits and other physical characteristics required to ensure interchangeability and to assist in the proper application of a specific category of lamps. This category is TH lamps with G6.35, GX6.35 and GY6.35 two-pin bases and 27.0 to 40 mm nominal light center length.  
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ANSI C78.1406-2004
American National Standard for Electric Lamps—P28 Single-Contact Medium Prefocus-Based Projection Lamps for Base-Down Operation—Dimensions
Establishes the dimensions essential to interchangeability of single-contact medium prefocus-based projection lamps of T10 and T12 bulb sizes.  
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ANSI C78.1407-2004 (R2008, R2015)
American National Standard for Electric Lamps—CBA Projection Lamp
Provides information on the description, ratings, restrictions, physical characteristics, dimensions, life, illumination, seal temperature and operating temperature of a lamp that has been Lamp Code Designated as a CBA projection lamp.  
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ANSI C78.1413-2001
American National Standard for Dimensions and Centering Systems for Projection Lamps—51 mm (2 in.) Integral Reflector, Rim Reference Lamps with GX5.3, GY5.3 and GU5.3 Bases
Specifies detailed dimensions for 51 mm (2 in.) integral reflector rim reference projection lamps with GX5.3, GY5.3 or GU5.3 bases to ensure interchangeability within the appropriate holding system. The lamps provide references for mounting at their reflector rims.  
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ANSI C78.1417-1997
American National Standard for 1.65 in. (42 mm) Integral Reflector, Rim Reference Projection Lamps with GX5.3 or GY5.3 Bases—Dimensions and Centering Systems
Specifies the detailed lamp dimensions for those lamps in the family of 1.65 in. (42 mm) integral reflector, rim reference lamps with GX5.3 or GY5.3 bases such that interchangeability within the appropriate holding system will be ensured.  
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<td>American National Standard for Microfilm Projection Lamps—2 in. (51 mm) Dichroic Coated Integral Reflector, Rim Reference Tungsten Halogen Lamps with GX5.3 Bases</td>
<td>Consolidates the lamps commonly used for microfilm projectors into a single performance Standard.</td>
<td>$117</td>
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<td>ANSI C78.1421-2002</td>
<td>American National Standard for Dimensions and Centering Systems for Projection Lamps—35 mm Integral Reflector, Rim Reference Lamps with GZ4 Bases</td>
<td>Specifies lamp dimensions of 35 mm (1.38 in.) diameter integral reflector rim reference projection lamps with GZ4 bases so that interchangeability with the appropriate holding systems will be ensured.</td>
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<td>ANSI C78.1430-1997 (R2009, R2016)</td>
<td>American National Standard for Electric Lamps—Slide Projector Lamps, Condensing, Dichroic, 1.65-in. (42 mm), Integral Reflector, Rim Reference Tungsten-Halogen Lamps with GX5.3 Bases</td>
<td>This Standard consolidates the lamps commonly used for slide projectors into a single Standard. The lamps contained in this Standard are not to be considered as interchangeable, although physically they will all fit the common GX5.3 sockets. The photometry of each lamp is dependent upon the system for which it was designed and on the system in which it is used. A sample system and representative photometric values are found in the Annex.</td>
<td>$62</td>
</tr>
<tr>
<td>ANSI C78.1431-1997 (R2016)</td>
<td>American National Standard for Electric Lamps—Slide Projector Lamps, Condensing, Dichroic, Two-inch (51 mm), Integral Reflector, Rim Reference Tungsten-Halogen Lamps with GY 5.3 Bases</td>
<td>Consolidates the lamps commonly used for slide projectors into a single Standard. The lamps contained in this Standard are not to be considered as interchangeable—they will all fit the common socket used for these lamps.</td>
<td>$69</td>
</tr>
<tr>
<td>ANSI C78.1432-1997 (S2018)</td>
<td>American National Standard for Tungsten Halogen (TH) Lamps with GZ9.5 Two-Pin, Prefocus Bases and 36.5 mm Nominal Light Center Length</td>
<td>Defines the dimensional limits and other physical characteristics required to ensure commonality and interchangeability and to assist in the proper application of TH lamps.</td>
<td>$53</td>
</tr>
<tr>
<td>ANSI C78.1433-2001 (S2018)</td>
<td>American National Standard for 2 in. (51 mm) Dichroic Coated Integral Reflector, Rim Reference Tungsten Halogen (TH) Large-Screen Projection Lamps with GX5.3 Bases</td>
<td>Consolidates Standards for low voltage 2 in. (51 mm) dichroic coated integral reflector, rim reference TH lamp types with GX5.3 bases designed for large-screen projection systems and used in 8 mm and 16 mm projection, slide projector, photo enlarger and printing applications.</td>
<td>$95</td>
</tr>
<tr>
<td>ANSI C78.1434-2001 (S2018)</td>
<td>American National Standard for Condensing Dichroic Coated Integral Reflector Side-Pin Tungsten Halogen (TH) Projection Lamps with GX7.9 Bases</td>
<td>Consolidates previous Standards for certain low voltage condensing dichroic coated integral reflector side-pin TH projection lamps with GX7.9 bases designed for large-screen projection systems and used in 8 mm and 16 mm projector applications.</td>
<td>$91</td>
</tr>
<tr>
<td>ANSI C78.1435-2002 (S2018)</td>
<td>American National Standard for Projection Lamps—Tungsten Halogen Lamps with G5.3 Bases</td>
<td>Consolidates projection lamps with G5.3 bases into a single Standard.</td>
<td>$64</td>
</tr>
<tr>
<td>ANSI C78.1450-1983 (R2002)</td>
<td>American National Standard for Projection Lamps, Incandescent—Method for Life Testing</td>
<td>Defines the dimensional limits and other physical characteristics required to ensure commonality and interchangeability and to assist in the proper application of projection lamps.</td>
<td>$43</td>
</tr>
<tr>
<td>ANSI C78.1451-2002 (S2018)</td>
<td>American National Standard for Electric Lamps—Use of Protective Shields with Tungsten Halogen (TH) Lamps—Cautionary Notice</td>
<td>Applies to the use of protective shields with all TH lamps that do not have an integral device that protects against shattering and ultraviolet emissions.</td>
<td>$9</td>
</tr>
<tr>
<td>Standard Number</td>
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<td>Description</td>
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<tr>
<td>ANSI C78.1452-2004 (R2008, R2015)</td>
<td>American National Standard for Electric Lamps—Projection Lamps—Vocabulary</td>
<td>Provides definitions for a wide range of terms used in the design, manufacturing and application of photographic lamps. Serves as a common reference for all lamp Standards in the C78.1400 series, thus reducing the number of terms that need to be defined in individual Standards.</td>
<td>$184</td>
</tr>
<tr>
<td>ANSI C78.1460-2004 (R2015)</td>
<td>American National Standard for Electric Lamps—Single-Ended Tungsten-Halogen Lamps GZ9.5 Base, T6 Bulb, 36.5mm LCL, 76.2mm MOL with Proximity Reflector</td>
<td>This Standard defines the dimensional, physical, and other characteristics to assist in the proper application of tungsten-halogen lamps with GZ9.5 bases, T6 (T19) bulbs at 36.5 mm LCL and 76.2 mm maximum overall length with internal proximity reflectors. Lamps of various wattage and voltage designs are included.</td>
<td>$62</td>
</tr>
<tr>
<td>ANSI C78.1500-2001</td>
<td>American National Standard for Tungsten Halogen (TH) Lamps with a Light Center Length (LCL) of 89 mm (3½ in.)</td>
<td>Defines the dimensional limits and other physical characteristics required to ensure interchangeability and assist in the proper application of TH lamps with P28 bases and 89 mm nominal LCL.</td>
<td>$90</td>
</tr>
<tr>
<td>ANSI C78.1501-2016</td>
<td>American National Standard for Electric Lamps—Tungsten-Halogen Lamps with G22 Bases and 63.5 mm LCL</td>
<td>Defines the dimensional limits and other physical characteristics required to ensure interchangeability and assist in the proper application of TH lamps with G22 bases and 63.5 mm nominal LCL.</td>
<td>$110</td>
</tr>
<tr>
<td>ANSI C78.1503-2001</td>
<td>American National Standard for Tungsten Halogen (TH) Lamps with G9.5 Bases and 60.5 mm Light Center Length (LCL)</td>
<td>Defines the dimensional limits and other physical characteristics required to ensure interchangeability and assist in the proper application of TH lamps with G9.5 bases and 60.5 mm nominal LCL.</td>
<td>$90</td>
</tr>
<tr>
<td>ANSI C78.1504-2001</td>
<td>American National Standard for Tungsten Halogen (TH) Lamps with P28 Bases and 55.5 mm Light Center Length (LCL)</td>
<td>Defines the dimensional limits and other physical characteristics required to ensure interchangeability and assist in the proper application of TH lamps with P28 bases and 55.5 mm nominal LCL.</td>
<td>$54</td>
</tr>
<tr>
<td>ANSI C78.1505-2001</td>
<td>American National Standard for Tungsten Halogen (TH) Lamps with G38 Bases and 127 mm Light Center Length (LCL)</td>
<td>Defines the dimensional limits and other physical characteristics required to ensure interchangeability and assist in the proper application of TH lamps with G38 bases and 127 mm nominal LCL.</td>
<td>$90</td>
</tr>
<tr>
<td>ANSI C78.60360-2002 (S2016)</td>
<td>American National Standard for Electric Lamps—Standard Method of Measurement of Lamp Cap Temperature Rise</td>
<td>Describes the Standard method of measurement of lamp cap temperature rise which is used when testing incandescent or discharge lamps for compliance with the limits. Temperature-rise limits for particular lamp types are listed in IEC 60432.</td>
<td>$116</td>
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ANSI C78.62612-2018
American National Standard for Electric Lamps—Self-Ballasted LED Lamps—Performance Specifications
Specifies the performance requirements, together with the test methods and conditions, required to show compliance of LED lamps with integral means for stable operation, intended for domestic and similar general lighting purposes.
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ANSI C78.62717-2018
American National Standard for Electric Lamps— LED Modules for General Lighting—Performance Requirements
Specifies the performance requirements for LED modules, together with the test methods and conditions, required to show compliance with this Standard.
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ANSI C78.62035-2016
American National Standard for Electric Lamps—Discharge Lamps (Excluding Fluorescent Lamps)—Safety Specifications
This Standard sets forth safety specifications for discharge lamps (excluding fluorescent lamps) with deviations to IEC 62035 (2014-04) Ed. 2.0.
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ANSI C78.6LL 3-2003 (R2008, R2015)
American National Standard for Electric Lamps—Procedures for High Intensity Discharge Lamp Sample Preparation and the Toxicity Characteristic Leaching Procedure
Procedures for preparation of high-intensity discharge (HID) lamps for the Toxicity Characteristic Leaching Procedure (TCLP) are presented. These procedures are intended to supplement the TCLP by supplying specific instructions for size reduction and for other critical procedures specific to the testing of HID lamps.
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ANSI C78.LL4-2003 (S2018)
American National Standard for Procedures for Incandescent Lamp Sample Preparation and the Toxicity Characteristic Leaching Procedure (TCLP)
Supplements the TCLP by supplying specific instructions for size reduction and other critical procedures specific to the testing of incandescent lamps.
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American National Standard for Electric Lamps—Procedures for Fluorescent Lamp Sample Preparation and the Toxicity Characteristic Leaching Procedure
Procedures for preparation of fluorescent lamps for Toxicity Characteristic Leaching Procedure (TCLP) are presented. These guidelines are intended to supplement the TCLP by supplying specific instructions for size reduction of lamps including integral electronic compact, pin-based compact, linear and U-shaped fluorescent lamps.
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ANSI C81.61-2019
American National Standard for Electrical Lamp Bases—Specifications for Bases (Caps) for Electric Lamps
Sets forth the specifications for bases (caps) used on electric lamps. This revision includes specifications for the G6.6 base.
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ANSI C81.62-2019
American National Standard for Electric Lampholders
Sets forth the specifications for lampholders for electric lamps. This revision includes specifications for the G6.6 lampholder.
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ANSI C81.63-2019
American National Standard for Gauges for Electric Lamp Bases and Lampholders
Standard sets forth the specifications for gauges for bases (caps) and lampholders for electric lamps.
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ANSI C81.64-2005 (R2014)
American National Standard—Guidelines and General Information for Electrical Lamp Bases, Lampholders and Gauges
Gives guidance and information to designers and testing personnel on the use of ANSI_IEC C81.61, ANSI_IEC C81.62 and ANSI_IEC C81.63 and their supplements.
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ANSI C82.1-2004 (R2008, R2015)
American National Standard for Lamp Ballasts—Line Frequency Fluorescent Lamp Ballasts
Covers ballasts which have rated open circuit voltages of 2000 V or less and are intended to operate lamps at a frequency of 50 Hz or 60 Hz.
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ANSI C82.2-2002
American National Standard for Lamp Ballasts—Method of Measurement of Fluorescent Lamp Ballasts
Outlines the procedures and the precautions to be observed in measuring and testing line frequency fluorescent lamp ballasts as specified in C82.1 with either hot- or cold-cathode fluorescent lamps.
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ANSI C82.3-2016
American National Standard for Reference Ballasts for Fluorescent Lamps
Describes the essential design features and operating characteristics of reference ballasts for fluorescent lamps.
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ANSI C82.4-2017
American National Standard for Lamp Ballasts—Ballasts for High-Intensity Discharge and Low-Pressure Sodium (LPS) Lamps (Multiple-Supply Type)
Provides specifications for and operating characteristics of ballasts for mercury, metal halide, high-pressure sodium and LPS lamps. The ballasts operate from multiple-supply sources of 600 V maximum at a frequency of 60 Hz.
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ANSI C82.6-2015
American National Standard for Lamp Ballasts—Ballasts for High-Intensity Discharge (HID) Lamps—Methods of Measurement
Describes the procedures to be followed and the precautions to be taken in measuring performance of low-frequency ballasts (electromagnetic and electronic ballasts that operate at less than 400 Hz) for high-intensity discharge (HID) lamps.
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ANSI C82.9-2016
American National Standard for Lamp Ballasts—High-Intensity Discharge (HID) and Low-Pressure Sodium (LPS) Lamps—Definitions
Provides definitions relative to specific terms contained in HID and LPS lamps and ballast Standards. Covers the dimensional limits and other physical characteristics required to ensure the commonality, interchangeability and proper application of these lamps.
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ANSI C82.11-2017
American National Standard for Lamp Ballasts—High Frequency Fluorescent Lamp Ballasts
Covers high frequency ballasts that have rated open-circuit voltages of 2,000 V or less and are intended to operate at a supply frequency of 50 or 60 Hz.
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ANSI C82.13-2002
American National Standard for Lamp Ballasts—Definitions—Fluorescent Lamps and Ballasts
Provides definitions of terms used in ANSI C78 and C82 series Standards for fluorescent lamps and ballasts. Individual Standards may also include additional definitions specific to that Standard.
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ANSI C82.14-2016
American National Standard for Lamp Ballasts—Low-Frequency Square Wave Electronic Ballasts—for Metal Halide Lamps
Provides specifications for and operating characteristics of low-frequency square wave electronic ballasts for metal halide lamps. Covers lamp operating-current frequencies from greater than 60 Hz up to 400 Hz (some exclusionary frequency ranges may apply).
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ANSI C82.16-2015
American National Standard for Light-Emitting Diode Drivers—Methods of Measurement
Describes the procedures to be followed and the precautions to be taken in measuring performance of LED drivers.
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ANSI C82.17-2017
American National Standard for Lamp Ballasts—High Frequency (HF) Electronic Ballasts for Metal Halide Lamps
Provides specifications for, and operating characteristics of, high-frequency electronic ballasts for metal halide lamps.
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ANSI C82.77-5-2017
American National Standard for Lighting Equipment—Voltage Surge Requirements
Specifies voltage surge limits and testing requirements for lighting equipment.
$76
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<td>ANSI C82.77-10-2014</td>
<td>American National Standard for Lighting Equipment—Harmonic Emission Limits—Related Power Quality Requirements</td>
<td>Specifies harmonic limits, their methods of measurement, and power factor (PF) for lighting equipment. This Standard covers all types of lighting equipment that is used for general illumination typically found in residential, commercial, and industrial applications. $89</td>
</tr>
<tr>
<td>ANSI C82.77-2002</td>
<td>American National Standard for Harmonic Emission Limits—Related Power Quality Requirements for Lighting Equipment</td>
<td>Specifies harmonic limits and methods of measurement for lighting equipment. $292</td>
</tr>
<tr>
<td>ANSI C136.2-2018</td>
<td>American National Standard for Roadway and Area Lighting Equipment—Dielectric Withstand and Electrical Transient Immunity Requirements</td>
<td>This Standard covers luminaires and control devices classified for up to 600 V operation and intended for use in roadway and area lighting applications. It contains minimum performance requirements and test procedures for evaluating luminaire and control devices under test (DUTs) for dielectric withstand and electrical transient immunity. $48</td>
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<tr>
<td>ANSI C136.3-2014</td>
<td>American National Standard for Roadway and Area Lighting Equipment—Luminaire Attachments</td>
<td>Covers attachment features of luminaires used in roadway and area lighting equipment. The features covered apply to luminaires that are side-, post top– or pendant-mounted. $45</td>
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<tr>
<td>ANSI C136.4-2019</td>
<td>American National Standard for Roadway and Area Lighting Equipment—Series Sockets and Series-Socket Receptacles</td>
<td>Covers series sockets having medium-impact strength and intended for service at high temperatures, series sockets having high-impact strength and intended for service at limited temperatures, and series-socket receptacles in the 5,000 V classification. $69</td>
</tr>
<tr>
<td>ANSI C136.5-2003 (R2013)</td>
<td>American National Standard for Roadway and Area Lighting Equipment—Film Cutouts</td>
<td>Covers operating and dimensional features of single-shot film cutouts used with series roadway lighting equipment and circuits that function by dielectric breakdown and subsequent partial fusing of components to establish a shunting electrical circuit to bypass non-operative series roadway lighting equipment. $46</td>
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<tr>
<td>ANSI C136.6-2004 (R2012, R2018)</td>
<td>American National Standard for Roadway and Area Lighting Equipment—Metal Heads and Reflector Assemblies—Mechanical and Optical Interchangeability</td>
<td>Covers dimensional features of luminaires with metal heads that permit mechanical and optical interchangeability of head and reflector assemblies. $48</td>
</tr>
<tr>
<td>ANSI C136.9-2003 (R2012, R2018)</td>
<td>American National Standard for Roadway and Area Lighting Equipment—Socket Support Assemblies for Metal Heads—Mechanical Interchangeability</td>
<td>Covers the following equipment for use in metal heads that are in accordance with the latest revision of C136.6 high-intensity discharge lamp ballast and socket assemblies, and mogul and medium multiple incandescent lamp socket and support assemblies. $48</td>
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<td>Covers the following roadway and area lighting equipment, which may be physically and electrically interchanged to operate within established values locking-type photocontrol; locking-type mating receptacle; and shorting and non-shorting caps. <strong>$76</strong> <strong>Buy Now</strong></td>
<td>Covers metal pipe, tubing and structural brackets for wood poles designed to support luminaires of generally spherical, ellipsoidal or rectangular shapes used in roadway and area lighting. <strong>$67</strong> <strong>Buy Now</strong></td>
<td>Covers dimensional, maintenance, and light distribution features that permit the interchange of enclosed, post top–mounted high-intensity discharge (HID), solid state light (SSL) source (also referred to as LED (Light Emitting Diode), compact fluorescent, and induction luminaires whose center of mass is approximately over the mounting tenon. <strong>$48</strong> <strong>Buy Now</strong></td>
</tr>
<tr>
<td>Discusses medium and mogul screw base sockets used in multiple fixture circuits or in luminaires designed and intended for parallel wired circuits. Provides interchangeability of lamps, minimum safety Standards for operating personnel, and minimum performance criteria in lighting roadways and areas open to the public. <strong>$48</strong> <strong>Buy Now</strong></td>
<td>Covers dimensional, maintenance and light distribution features that permit the interchange of enclosed side-mounted luminaires for horizontal-burning high-intensity discharge (HID) lamps and other light sources used in roadway and area lighting equipment. <strong>$48</strong> <strong>Buy Now</strong></td>
<td>Covers the dimensional features and the materials of refractors as shown in this Standard and as described in C136.14. <strong>$64</strong> <strong>Buy Now</strong></td>
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<tr>
<td>Covers the selection of mercury vapor lamps recommended for use in roadway and area lighting equipment. <strong>$48</strong> <strong>Buy Now</strong></td>
<td>The intent of this Standard is to provide a simple, uniform method for identifying the type and wattage rating of a luminaire used for roadway and area lighting. <strong>$48</strong> <strong>Buy Now</strong></td>
<td>Covers physical, operational, maintenance and light-distribution features that permit use of high-mast luminaires in roadway applications when specified. <strong>$45</strong> <strong>Buy Now</strong></td>
</tr>
<tr>
<td>Standard Number</td>
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<td>Summary</td>
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<tr>
<td>ANSI C136.20-2012</td>
<td>American National Standard for Roadway and Area Lighting Equipment—Fiber-Reinforced Composite (FRC) Lighting Poles</td>
<td>Applies to FRC lighting poles used for roadway and area lighting. Includes nomenclature, dimensional data, performance criteria and some interchangeability features for Standard poles as well as those that must meet breakaway requirements for poles as described in AASHTO LTS Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals.</td>
</tr>
<tr>
<td>ANSI C136.21-2014</td>
<td>American National Standard for Roadway and Area Lighting Equipment—Vertical Tenons Used with Post Top-Mounted Luminaires</td>
<td>Covers the attachment features of vertical tenons on pole tops or brackets used in roadway and area lighting that permit the interchangeability of post top-mounted luminaires.</td>
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<td>ANSI C136.24-2004 (R2010)</td>
<td>American National Standard for Roadway and Area Lighting Equipment—Non-Locking (Button)–Type Photocontrols</td>
<td>Covers the electrical and mechanical interchangeability of non-locking–type photocontrols for mounting within a roadway or off-roadway luminaire.</td>
</tr>
<tr>
<td>ANSI C136.25-2013</td>
<td>American National Standard for Roadway and Area Lighting Equipment—Ingress Protection (Resistance to Dust, Solid Objects and Moisture) for Luminaire Enclosures</td>
<td>Addresses the protection of luminaires from ingress based on the anticipated environment.</td>
</tr>
<tr>
<td>ANSI C136.27-2012</td>
<td>American National Standard for Roadway and Area Lighting Equipment—Tunnel Lighting and Underpass Luminaires</td>
<td>Covers luminaires used for illuminating roadway tunnels and underpasses. The requirements in this Standard are limited to general attributes of tunnel luminaires because of the wide variety of possible designs.</td>
</tr>
<tr>
<td>ANSI C136.29-2011 (R2018)</td>
<td>American National Standard for Roadway and Area Lighting Equipment—Metal Halide Lamps—Guide for Selection</td>
<td>Includes information on screw base single-ended metal halide lamps that can be used in roadway and area lighting equipment.</td>
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<tr>
<td>ANSI C136.30-2015</td>
<td>American National Standard for Roadway and Area Lighting Equipment—Pole Vibration</td>
<td>Covers the minimum vibration withstand requirements and testing procedures for poles used in roadway and area lighting. The guide is intended for poles of 50-ft mounting height and under.</td>
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ANSI C136.31-2018
American National Standard for Roadway and Area Lighting Equipment—Luminaire Vibration
Covers the minimum vibration withstand capability and vibration test methods for roadway and area luminaires.
$49
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ANSI C136.32-2012
American National Standard for Roadway and Area Lighting Equipment—Enclosed Setback Luminaires and Directional Floodlights for High-Intensity Discharge (HID) Lamps
Covers dimensional, maintenance and electrical features that permit the interchange of similar style enclosed luminaires having the same light distribution classification or type for HID lamps used in roadway and area lighting equipment. Luminaires covered by this Standard are generally yoke-, trunnion- or tenon-mounted and are traditionally called floodlights or setback luminaires.
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ANSI C136.34-2014
American National Standard for Roadway and Area Lighting Equipment—Vandal Shields for Roadway and Area Lighting Luminaires
Covers supplementary vandal shields used to protect luminaires and luminaire accessories used for roadway and area lighting.
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ANSI C136.35-2009 (R2014)
American National Standard for Roadway and Area Lighting Equipment—Luminaire Electrical Ancillary Devices (LEAD)
Covers the electrical and mechanical interchangeability of electrical devices mounted on or in luminaires, brackets, or remotely mounted on the support structure of the luminaire and that may draw power from the luminaire.
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ANSI C136.37-2019
American National Standard for Solid State Light Sources Used in Roadway and Area Lighting
Defines interchangeability and some requirements for solid state lighting (SSL) source fixtures. Includes requirements for operating temperature, correlated color temperature, mounting provisions, dimming, ingress protection, and wiring and grounding. Sets protocol for surge-test waveforms, the basic insulation test, and specific product ratings.
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ANSI C136.38-2015
American National Standard for Roadway and Area Lighting Equipment—Induction Lighting
Defines electrical and mechanical requirements of induction-type light sources for use in roadway and area lighting luminaires.
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ANSI C136.40-2014
American National Standard for Roadway and Area Lighting Equipment—Solar Lighting Systems
Defines requirements for the specification and installation of DC solar-powered roadway and area lighting systems.
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ANSI C136.41-2013
American National Standard for Roadway and Area Lighting Equipment—Dimming Control Between an External Locking Type Photocontrol and Ballast or Driver
Describes methods of light level control between an external locking type photocontrol (or similar device) and a dimmable ballast or driver for street and area lighting equipment. Mechanical, electrical, and marking requirements are established for dimming, locking type photocontrols and mating receptacles.
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ANSI C136.42-2019
American National Standard For Roadway and Area Lighting Equipment—Solid State Lighting Retrofit Kits
Defines the mechanical and electrical requirements for transforming an installed HID roadway and area luminaire to a solid state roadway and area luminaire. This Standard is limited to non-screwbase retrofit kits only.
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ANSI C136.45-2011 (R2016)
American National Standard for Roadway and Area Lighting Equipment—Aluminum Lighting Poles
Provides specification information for aluminum lighting poles as used in roadway and area lighting applications.
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ANSI C136.46-2013
American National Standard For Roadway and Area Lighting Equipment—Concrete Lighting Poles
Applies to concrete lighting poles used in roadway and area lighting equipment and includes nomenclature, performance criteria, marking and record keeping requirements and certain minimal material needs. It does not cover concrete poles manufactured with any modified concrete mix incorporating the use of polymers or other modifiers.
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ANSI C136.47-2010 (R2015)
American National Standard for Roadway and Area Lighting Equipment—Steel Roadway and Area Lighting Poles
Provides construction and performance guidance for steel poles used in roadway and area lighting applications.
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ANSI C136.48-2018
American National Standard For Roadway and Area Lighting Equipment—Wireless Networked Lighting Controllers
Defines the minimum requirements for wireless networked lighting controllers (NLC) intended for use with roadway and area lighting systems.
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ANSI C136.49-2016
American National Standard for Roadway and Area Lighting Equipment—Plasma Lighting
Defines the electrical and mechanical requirements of plasma type light sources for use in roadway and area lighting luminaires.
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ANSI C136.47-2010 (R2015)
American National Standard for Roadway and Area Lighting Equipment—Film Cutouts
Covers operating and dimensional features of single-shot film cutouts used with series roadway lighting equipment and circuits that function by dielectric breakdown and subsequent partial fusing of components to establish a shunting electrical circuit to bypass non-operative series roadway lighting equipment.
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ANSI C136.53-2017
American National Standard for Roadway and Area Lighting Equipment—Enclosed Pendant Mounted Luminaires
Covers dimensional, maintenance, and light distribution features that permit the interchange of enclosed pendant-mounted luminaires whose center mass is directly below the mounting bracket.
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ANSI C136.58-2019
American National Standard for Roadway and Area Lighting Equipment—Luminaire Four-Pin Extension Module and Receptacle—Physical and Electrical Interchangeability and Testing
Provides mechanical and electrical specifications for interfacing street and area lighting with controls and sensor accessories.
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ANSI C137.0-2017
American National Standard For Lighting Systems—Lighting Systems Terms and Definitions
Definitions listed in this document apply or are directly related to lighting systems and are used in multiple lighting system Standards.
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<td>Supplements the TCLP by supplying specific instructions for size reduction and other critical procedures specific to the testing of incandescent lamps.</td>
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</tr>
<tr>
<td>C78.1407-2004 (R2008, R2015)</td>
<td>American National Standard for Electric Lamps—Condenser-Reflector, Four-Pin Prefocus-Base Projection Lamps—Dimensions</td>
<td>Specifies the dimensions essential to the interchangeability of condenser-reflector lamps having four-pin prefocus bases, T12 or T14 bulbs, and used in 8mm motion-picture projectors.</td>
<td>$51</td>
</tr>
<tr>
<td>NEMA 77-2017</td>
<td>Temporal Light Artifacts: Test Methods and Guidance for Acceptance Criteria</td>
<td>Recommends a method of quantifying the visibility of temporal light artifacts (TLA), and recommends initial, broad application-dependent limits on TLA.</td>
<td>$307</td>
</tr>
<tr>
<td>NEMA BL 2-2009</td>
<td>Energy Efficiency for Electronic Ballasts for T8 Fluorescent Lamps</td>
<td>Includes energy-efficiency requirements for declaration as NEMA Premium®-rated products and for evaluating electronic ballasts designed for use with 4-ft 32 W T8 fluorescent lamps with a lumen output greater than or equal to 3,100 lumens.</td>
<td>$47.25</td>
</tr>
<tr>
<td>NEMA BL 3-2013</td>
<td>Dimming Ballast Energy Performance</td>
<td>Provides a methodology for applying existing test methods for program start ballasts to fluorescent dimming ballasts and provides a way to calculate BLE for fluorescent dimming ballasts. This Standard offers BLE limits for ballasts of common four-foot bipin lamps, such as T8 and T5 lamps, that are not covered by the most recent Federal Rulemaking.</td>
<td>$43.05</td>
</tr>
<tr>
<td>NEMA DCP 1-2018</td>
<td>Direct Current in Buildings</td>
<td>Summarizes the results from a survey on DC in buildings and provides background on the primary drivers for DC systems. It also highlights potential benefits of using DC in buildings and opportunity areas in next five to ten years.</td>
<td>No charge</td>
</tr>
<tr>
<td>NEMA FL SET</td>
<td>Fluorescent Set</td>
<td>The fluorescent lamps and ballasts package classifies as either double-ended or single-ended lamps. Glow starters are also covered by this product. Set includes ANSI C78.5, ANSI C78.30, ANSI C78.81, ANSI C78.180, ANSI C78.375, ANSI C78.376, ANSI C79.1, ANSI C81.61, ANSI C81.62, ANSI C81.63, ANSI C82.1, ANSI C82.11, ANSI C82.12, ANSI C82.13, ANSI C82.2, ANSI C82.3, ANSI C82.77.</td>
<td>$2,158</td>
</tr>
<tr>
<td>NEMA HID SET</td>
<td>HID Set</td>
<td>High intensity discharge lamps and ballasts Standards set contains low/high pressure lamps and metal-halide lamps. Set includes ANSI C78.30, ANSI C78.40, ANSI C78.41, ANSI C78.42, ANSI C78.43, ANSI C78.44, ANSI C78.45, ANSI C78.379, ANSI C78.380, ANSI C78.389, ANSI C79.1, ANSI C81.61, ANSI C81.62, ANSI C81.63, ANSI C82.14, ANSI C82.4, ANSI C82.6, ANSI C82.77, ANSI C82.9.</td>
<td>$2,578</td>
</tr>
</tbody>
</table>
NEMA IL SET
Incandescent Set
The incandescent lamps set package are general lighting, projector lamps, miniature lamps, automotive lamps, aircraft lamps, stage lamps and studio lamps. Set includes ANSI C78.20, ANSI C78.21, ANSI C78.22, ANSI C78.23, ANSI C78.24, ANSI C78.30, ANSI C78.260, ANSI C78.261, ANSI C78.357, ANSI C78.370, ANSI C78.370.390, ANSI C78.379, ANSI C78.390, ANSI C78.391, ANSI C78.1401, ANSI C78.1402, ANSI C78.1403, ANSI C78.1406, ANSI C78.1407, ANSI C78.1408, ANSI C78.1413, ANSI C78.1417, ANSI C78.1420, ANSI C78.1421, ANSI C78.1431, ANSI C78.1432, ANSI C78.1433, ANSI C78.1434, ANSI C78.1435, ANSI C78.1450, ANSI C78.1451, ANSI C78.1460, ANSI C78.604321, ANSI C78.604322, ANSI C78.604323, ANSI C79.1, ANSI C81.61, ANSI C81.62, ANSI C81.63, ANSI C82.77.
$2,292

NEMA SSL SET
SSL Set
Solid state lighting Standards include semiconductor light sources—light emitting diodes (LEDs), laser diodes, organic LEDs, and any other semiconductor light sources; controlgear; light emitting diode (LED) drive circuits; and microwave power supplies for electrodeless lamps. The set includes: ANSI C78.30, ANSI C78.377, ANSI C78.79, ANSI C81.61, ANSI C81.62, ANSI C81.63, ANSI C82.77, NEMA SSL 1, NEMA SSL 3, NEMA SSL 4, NEMA SSL 6, and NEMA SSL 7A.
$1,739

NEMA LC 1-2007 (R2018)
Test Procedure for Compatibility of Hearing Aids and Ultrasonic Lighting Control Devices
Sets forth test procedures for use with a small acoustic chamber to evaluate potential interactions between hearing aids and ultrasonic lighting control devices (occupancy sensors). Test procedures are designed to simulate and test occupancy sensors at three typical, specific frequencies (25 kHz, 32.7 kHz and 40 kHz) and one type of hearing aid.
$64

NEMA LE 4-2012 (R2018)
Recessed Luminaires, Ceiling Compatibility
Contains definitions, dimensions and tolerances for recessed luminaires designed to use fluorescent high-intensity discharge and incandescent light sources.
$92

NEMA LE 5-2001
Procedure for Determining Luminaire Efficacy Ratings for Fluorescent Luminaires
Establishes a luminaire efficacy rating based on rated lumens per watt and organizes luminaires into categories that will reasonably represent the characteristics of high-volume luminaires. Serves as the basis for the National Voluntary Information and Rating Program for widely used luminaires. When rating a fixture in accordance with EPAct 1992, use this Standard. For other purposes, see NEMA LE 6, a newer Standard for luminaire efficacy that supersedes the LE 5 series.
$80

NEMA LE 5A-1999
Procedure for Determining Luminaire Efficacy Ratings for Commercial, Non-Residential Downlight Luminaires
Provides a standardized test method for determining the luminaire efficacy rating of incandescent, compact fluorescent and low-wattage high-intensity discharge downlight luminaires. When rating a fixture in accordance with EPAct 1992, use this Standard. For other purposes, see NEMA LE 6, a newer Standard for luminaire efficacy that supersedes the LE 5 series.
$86

NEMA LE 5B-1998
Procedure for Determining Luminaire Efficacy Ratings for High-Intensity Discharge (HID) Industrial Luminaires
Provides standardized tests to evaluate the energy efficiency of HID industrial luminaires. Provides a procedure for determining the luminaire efficacy ratings under laboratory test conditions, including visual tasks involved, luminaire placement, such performance characteristics as color and glare, lighting maintenance, on/off level control and a ballast’s ability to regulate lamp wattage. When rating a fixture in accordance with EPAct 1992, use this Standard. For other purposes, see NEMA LE 6, a newer Standard for luminaire efficacy that supersedes the LE 5 series.
$54
STANDARDS & OTHER PUBLICATIONS: Lighting

NEMA LE 6-2014
Procedure for Determining Target Efficacy Ratings for Commercial, Industrial, and Residential Luminaires
Provides a procedure for the determination of TER for luminaires under laboratory test conditions and describes categories or types of product used in common indoor and outdoor lighting applications. This Standard does not apply to luminaires for specialized applications, including but not limited to products intended to be aimed, accent luminaires, rough or hazardous use luminaires or emergency lighting.
$84
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NEMA LE 7-2015
Recessed Luminaires Intended for Contact with Expanding Polyurethane Foam Insulation
Defines a subset of insulation contact (Type IC) luminaires that are appropriate for use with polyurethane spray foam. This Standard also provides requirements and recommendations for Type IC recessed luminaires intended for installation in contact with low-density and medium-density polyurethane foam thermal insulation.
$60
Buy Now

NEMA LL 8-2010
Limits on Mercury Content in Self-Ballasted Compact Fluorescent Lamps
Covers limited integral, self-ballasted compact fluorescent lamps of all base types. Applies to integral, self-ballasted compact fluorescent lamps manufactured or imported after September 2010.
$47
Buy Now

NEMA LL 9-2011
Dimming of T8 Fluorescent Lighting Systems
Provides recommendations for dimmable T8 fluorescent lighting systems for the full range of light output.
$57
Buy Now

NEMA LSCR-PP 1-2015
Light Source Color Rendition
No charge
Buy Now

NEMA LSD 1-2003 (R2011)
Tungsten Halogen (TH) Lamps (Bulbs) Ultraviolet, Rupture and High Temperature Risks
Addresses the benefits and the safe operation of TH lamps.
No charge
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NEMA LSD 2-2012
Wiring Requirements for T8 Lamps with Instant-Start Ballasts
Addresses field problems related to the retrofit of T8 lamps and instant-start ballasts into existing luminaires.
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NEMA LSD 4-1999
Glossary of Terms Pertaining to Remote Illumination Systems
Defines the more common terms associated with remote illumination systems intended to generate and/or conduct light from its source, an illuminator, through a light guide assembly to one or more remote locations, luminaires, for the purpose of illumination.
No charge
Buy Now

NEMA LSD 7-1999 (R2012)
Ultraviolet Radiation (UV) from Fluorescent Lamps
Discusses various scientific studies on possible effects of exposure to light sources reported in the popular press. This interest has been stimulated by the fact that 1) most light sources emit some small amount of UV energy, and 2) extended exposure to the high UV levels in sunlight can cause adverse effects in the skin.
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NEMA LSD 8-2014
Power Quality Implications of Self-ballasted Lamps in Residences
This paper provides information about self-ballasted lamps and the implications these lamps present from a power quality perspective. It focuses on the use of self-ballasted lamps in residences and on residential power quality. Self-ballasted lamps have dedicated ballasts that are part of the lamp itself. This allows the lamp to be used in some sockets that were originally meant for incandescent lamps. The ballast intercepts the electrical current before it enters the bulb itself, and it cannot be removed from the base. CFLs and some LED lamps are examples of self-ballasted lamps.
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NEMA LSD 9-2000 (R2011)
Compatibility of Add-on Tube Guards with T8 Fluorescent Lamps Operating on High-Frequency Electronic Ballasts
Addresses concerns that arise in the field regarding the use of plastic tube guards on T-8 fluorescent lamps operated on high-frequency electronic ballasts.
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NEMA LSD 10-2000
Facilitates the safe installation and use of remote illumination systems equipment. Includes consistent applicable definitions.
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NEMA LSD 11-2010
White Paper on Outdoor Lighting Issues and Quality Lighting Applications
Provides information related to outdoor lighting issues and quality lighting. Identifies specific lighting issues, explains the interaction of these issues, defines correct lighting terminology and provides straightforward technical guidance.
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NEMA LSD 13-2001
Exit Sign Brightness for Visibility and Safety
Provides a brief background on life safety codes and Standards requirements, reviews exit sign technologies relative to brightness, summarizes visibility research results and sets forth recommendations for the visibility of exit signs to promote safety.
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Buy Now

NEMA LSD 14-2012 (R2019)
Guidelines on the Application of Dimming to High-Intensity Discharge Lamps
Imparts general information and considerations in the design and application of such systems. Contact the manufacturers of the lamps, ballasts, and dimming systems for specific recommendations.
No charge
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NEMA LSD 18-2018
Selection of Electronic Ballasts for Fluorescent Lamps in Frequently Switched Applications
Provides guidance in the selection of ballast type as a function of lamp switching rate to achieve the desired energy savings while maintaining acceptable lamp life.
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NEMA LSD 21-2012
End-of-life Operation of Small Diameter (5/8 in. Diameter or Less) Pin-Based Fluorescent Lamps
Addresses variations in electrical and thermal parameters of small-diameter fluorescent lamps.
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NEMA LSD 22-2001
Demand Reduction and Energy Savings Using Occupancy Sensors
Provides unique and valuable data about occupancy sensor demand reduction and energy savings potential.
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NEMA LSD 23-2016
Recommended Practice—Lamp Seasoning for Fluorescent Dimming Systems
This paper provides a recommended practice to season lamps for Fluorescent Dimming Systems.
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NEMA LSD 24-2012
Marking of Luminaire Codes on Metal Halide Lamps
Provides information on marking metal halide lamps with the manufacturer’s commercial designation, including lamp wattage, ANSI code, lamp type, electrical code, and luminaire code.
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NEMA LSD 27-2012
Best Practices for Operating Fluorescent Lighting Systems
Summarizes information and recommendations found in more detailed NEMA papers on individual topics, as well as additional information and recommendations. The information benefits customers seeking to ensure proper operation of fluorescent systems to maximize system reliability and operational economy.
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NEMA LSD 28-2014
Minimizing the Potential of Base Arcing Between Certain Wattage HID Lamps and Lampholders
Provides information regarding Use of Appropriate HID Lamp Holders to Minimize Potential Base Arcing with Certain HID Lamp Wattages.
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NEMA LSD 29-2019
Incompatibility of T8 Ballasts (RS, PS, Dimming) and Shunted Bi-Pin Lampholders
Provides information on incorrect applications of bi-pin lampholders (tombstones) used with rapid-start (RS), programmed start (PS) and dimming ballasts. These incorrect applications have occurred in both new luminaires and field lamp and ballast retrofits.
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Buy Now

NEMA LSD 34-2012
Recommended Practices for T8 Rapid-Start Fluorescent Lamp Dimming (17 W, 25 W, 32 W and 40 W Lamps)
Addresses the selection, integration, installation, application and maintenance of the dimming system components that together constitute a T8 fluorescent lamp-dimming system.
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NEMA LSD 35-2012
ANSI Code Update to Include Letter C for Ceramic Metal Halide Lamps
Addresses ANSI code changes for ceramic metal halide lamps.
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NEMA LSD 40-2019
Failure Modes for Self-Ballasted Compact Fluorescent Lamps (SBCFLs)—A NEMA Update
Explains in simplified terms why SBCFLs have different failure modes from normal incandescent lamps.
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NEMA LSD 41-2012
UN2911 Labeling and Transportation of Lamps Containing Radioactive Substances
Provides information about shipping and labeling of lamps that contain radioactive substances. The vast majority of light bulbs, also called lamps by the lighting industry, do not contain any radioactive materials. Certain types contain very small amounts of radioactive isotopes which help to improve lamp ignition, lamp life and lumen maintenance.
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NEMA LSD 45-2009
Recommendations for Solid State Lighting Sub-Assembly Interfaces for Luminaires
Provides guidance on the design and construction of interconnects (sockets) for solid state lighting applications.
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NEMA LSD 46-2019
Photoluminescent Exit Signage—Factual Review
Describes concerns regarding the marketing and application recommendations common to photoluminescent exit signage in the U.S. and Canada. Intended to educate potential users as to the considerations regarding installing and relying upon this type of emergency equipment. Includes 12/16/09 editorial correction to labeling of units and equivalents for luminance values.
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NEMA LSD 49-2010
Solid State Lighting for Incandescent Replacement—Best Practices for Dimming
Provides recommendations for the dimming and design of screw-based incandescent replacement solid state lighting products.
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NEMA LSD 50-2010
Outdoor Lighting and Human/Animal Factors An Industry Opinion
Outlines industry concerns and opinions regarding the subject of light at night and outdoor electric lighting as related to humans, animals, energy conservation and the environment.
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NEMA LSD 56-2011
Compatibility of Forward Phase Control Dimmers and Dimmable Self-Ballasted Compact Fluorescent Lamps and Frequently Asked Questions Regarding CFLs and Dimming
Provides design guidance in the area of lamp/dimmer compatibility to manufacturers of dimmable self-ballasted compact fluorescent lamps (CFLs) using forward phase control and manufacturers of forward phase control dimmers. The values provided assume operation under nominal line conditions, i.e. 120 V, 60 Hz.
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NEMA LSD 57-2018
Polyurethane Foam Application: Lighting Equipment
Provides information regarding practical aspects of applying spray foam insulation that may come into contact with luminaires in various building applications.
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NEMA LSD 58-2017
Air Infiltration Ratings for Recessed Luminaires
Addresses the Standard test procedure, installation requirements, and labeling applicable to luminaires to demonstrate limited airflow.
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NEMA LSD 60-2012
The Effects of Dimming on Color and Efficacy of LED Lamps
Describes and demonstrates the effects of dimming on color and efficacy of LED-based lamps.
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NEMA LSD 61-2012
Fluorescent Dimming Standards Development Report
Summarizes TFDS work and presents final results in a report for more detailed cited publications.
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NEMA LSD 62-2012
Systems Approach for Lighting
Maximizes energy savings by shifting the regulatory focus from appliance Standards to lighting systems Standards as incorporated into building energy code.
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NEMA LSD 63-2012
Measurement Methods and Performance Variation for Verification Testing of General Purpose Lamps and Systems
Establishes variations that can be expected when independent verification testing. Generally this is based on small samples of lamps or ballasts performed to estimate product performance characteristics and for comparison to manufacturer’s ratings.
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NEMA LSD 64-2014
Lighting Controls Terminology
Defines terminology related to controls for lighting systems for non-residential and residential applications.
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NEMA LSD 65-2012
NEMA Guide to Emergency Lighting
Provides information on emergency lighting systems, related codes, and regulations. This is not a “How To” manual for emergency lighting and exit signs. It is designed to provide a basic understanding of emergency lighting unit and exit sign equipment and how it functions.
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NEMA LSD 66-2017
Understanding the New Fluorescent Ballast Rule EPCA 10 CFR 430
Provides educational information about the Fluorescent Ballast Rule and the associated measurement methods.
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NEMA LSD 67-2013 (R2018)
Low Mercury Controllable Fluorescent Systems
Discusses technical tradeoffs associated with reduced mercury dosing in fluorescent lighting systems and their environmental impacts. NEMA Members are committed to providing fluorescent lighting systems that allow lamps to be controlled to save energy, while reducing the mercury content in the lamps to the extent that it is technically possible without sacrificing functionality.
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NEMA LSD 68-2013
Remote Phosphor Devices Used in LED Lamps, Engines and Luminaires
Facilitates development of testing and certification procedures that will allow the qualification of pump or source devices, pumped conversion materials/remote phosphors and reflective materials independently then qualification of the remote phosphor system (pump + conversion material + mixing chamber material, if applicable). This can simplify the testing required to qualify for ENERGY STAR®.
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NEMA LSD 70-2014
A Comparison of High Performance Luminaire Programs in the US Market
Illustrates the luminaire types covered by ENERGY STAR® Luminaires, DesignLights Consortium, and Federal Energy Management Program (FEMP) guidelines and notes where the overlaps occur.
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NEMA LSD 71-2014
Best Practices for Metal Halide Lighting Systems Relative to Lamp Rupture Risks
The objective of this paper is to provide updated educational information for the selection, operation, and maintenance of metal halide lighting systems, with specific emphasis on those items pertinent to the risks associated with lamp rupture.
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NEMA LSD 73-2015
Energy Savings with Fluorescent and LED Dimming
Includes dimmable fluorescent ballast and Light Emitting Diode (LED) drivers that are controlled by 0-10 V (1-10 V) control input. This paper explains the relationship between the control input voltage and overall energy consumed by these ballasts and drivers.
No charge

NEMA LSD 74-2016
Considerations of Field LED Driver Replacement
Discusses issues related to the field replacement of drivers in LED lighting fixtures, and how several aspects must be considered to ensure that the replacement driver will function the same as the original driver.
No charge

NEMA LSD 76-2017
White Paper on the Usage of LED Lamps in Emergency Lighting Systems Having Remote Capacity
Contains a series of frequently asked questions to assist customers in understanding remote capacity and the usage of LED lamps in emergency lighting systems.
No charge

NEMA LSD 79-2018
Predicted Energy Savings from Lighting Systems
Includes a framework used to gauge the effectiveness of different lighting control methods. This paper is indifferent to the manufacturer of a controls system and provides a modular approach to measuring the “potential” savings realized from various lighting systems.
No charge

NEMA LSD 80-2018
Installation Guidelines for Outdoor Luminaires—Grounding Considerations
Addresses application of the National Electrical Safety Code® (NESC) as it pertains to the grounding of outdoor luminaires and recommends installation guidelines.
No charge

NEMA LSD 81-2019
Controlled Emergency Lighting, a Technical Clarification Bulletin
Assists in the specification of devices used with emergency lighting that is controlled (dimming, switching, etc.) to satisfy the requirements of the applicable codes.
No charge

NEMA LSD 9-2000 (R2011, R2017)
Compatibility of Add-on Tube Guards with T8 Fluorescent Lamps Operating on High-Frequency Electronic Ballasts
Addresses concerns that arise in the field regarding the use of plastic tube guards on T-8 fluorescent lamps operated on high-frequency electronic ballasts.
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NEMA LSD E11-2001
Fluorescent Lamps and the Environment
Answers questions regarding lamp technology and the presence of mercury therein, environmental concerns and industry and regulatory efforts. Fluorescent lamps and high-intensity discharge lamps contain small quantities of mercury. Concerns over mercury releases to the air and water are driving stricter disposal regulations.
No charge

NEMA SSL 1-2016
Electronic Drivers for LED Devices, Arrays or Systems
Provides specifications for and operating characteristics of non-integral electronic drivers (power supplies) for LED devices, arrays or systems intended for general lighting applications.
$72

NEMA SSL 4-2012
Retrofit Lamps—Minimum Performance Requirements
Applies to integral Light Emitting Diode (LED) lamps, which is defined as a lamp with LEDs, LED driver, and base meeting appropriate American National Standards (ANSs). It is designed to connect to the branch circuit.
$63

NEMA SSL 6-2010
Solid State Lighting for Incandescent Replacement—Dimming
Provides guidance for those seeking to design and build or work with solid state lighting products intended for retrofit into systems that previously used incandescent screw base lamps. Addresses dimming of these products and the interaction between the dimmer (control) and the bulb (lamp).
$72

NEMA SSL 7A-2015
Phase-Cut Dimming for Solid State Lighting—Basic Compatibility
Provides compatibility requirements when a forward phase-cut dimmer is combined with one or more dimmable light-emitting diode (LED) light engines (LLEs).
$72

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NEMA TLAs-2015
Temporal Light Artifacts (Flicker and Stroboscopic Effects)
Addresses temporal light artifacts (TLAs). Flicker and stroboscopic effects are undesired changes in visual perception induced by a light stimulus whose luminance or spectral distribution fluctuates with time, for an observer in a certain environment.
No charge
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Measuring & Metering

ANSI C12-IEC 62056-9-7 ED1.0
American National Standard for Electricity Metering Data Exchange – THE DLMS/COSEM SUITE- Communication Profile for TCP-UDP/IP Networks
ANSI C12 Standards Committee makes an identical national adoption of IEC 62056-9-7 Ed. 1.0 Electricity Metering Data Exchange – THE DLMS/COSEM SUITE- Communication Profile for TCP-UDP/IP Networks. This part of IEC 62056 specifies the DLMS/COSEM communication profile for TCP-UDP/IP networks. The TCP-UDP/IP based communication profiles are suitable for remote data exchange with metering equipment via IP enabled networks such as wide area networks, neighborhood networks or local networks.
$123
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ANSI C12/IEC 62056-5-3 ED3
American National Standard for Electricity Metering Data Exchange – The DLMS/COSEM Suite Part 5-3: DLMS/COSEM Application Layer
ANSI C12 Standards Committee makes an identical national adoption of IEC 62056-5-3 Ed. 3 Electricity Metering Data Exchange – The DLMS/COSEM Suite Part 5-3: DLMS/COSEM Application Layer. This part of IEC 62056 specifies the DLMS/COSEM application layer in terms of structure, services and protocols for DLMS/COSEM clients and servers, and defines rules to specify the DLMS/COSEM communication profiles. It defines services for establishing and releasing application associations, and data communication services for accessing the methods and attributes of COSEM interface objects, defined in IEC 62056-6-2 using either logical name (LN) or short name (SN) referencing.
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ANSI C12/IEC 62056-6-1 ED3
American National Standard for Electricity Metering Data Exchange – The DLMS/COSEM Suite Part 6-1: Object Identification System (OBIS)
ANSI C12 Standards Committee makes an identical national adoption of IEC 62056-6-1 Ed. 3 Electricity Metering Data Exchange – The DLMS/COSEM Suite Part 6-1: Object Identification System (OBIS). This part of IEC 62056 specifies the overall structure of the Object Identification System (OBIS) and the mapping of all commonly used data items in metering equipment to their identification codes. OBIS provides a unique identifier for all data within the metering equipment, including not only measurement values, but also abstract values used for configuration or obtaining information about the behaviour of the metering equipment.
$295
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ANSI C12/IEC 62056-6-2 ED3
American National Standard for Electricity Metering Data Exchange – The DLMS/COSEM Suite Part 6-2: COSEM Interface Classes
ANSI C12 Standards Committee makes an identical national adoption of IEC 62056-6-2 Ed. 3 Electricity Metering Data Exchange – The DLMS/COSEM Suite Part 6-2: COSEM Interface Classes. This part of IEC 62056 specifies a model of a meter as it is seen through its communication interface(s). Generic building blocks are defined using object-oriented methods, in the form of interface classes to model meters from simple up to very complex functionality. Annexes A to F (informative) provide additional information related to some interface classes.
$431
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ANSI C12.1-2014
American National Standard for Electric Meters—Code for Electricity Metering
This Code establishes acceptable performance criteria for new types of AC watthour meters, demand meters, demand registers, pulse devices, and auxiliary devices. It describes acceptable in-service performance levels for meters and devices used in revenue metering. It also includes information on related subjects, such as recommended measurement Standards, installation requirements, test methods, and test schedules. This Code for Electricity Metering is designed as a reference for those concerned with the art of electricity metering, such as utilities, manufacturers, and regulatory bodies.
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ANSI C12.4-1984 (R2002, R2011)
American National Standard for Registers—Mechanical Demand
Covers the voltage and frequency rating, full-scale values, scale classes, demand intervals, multiplying constants, timing mechanism and other general features of mechanical demand registers required for use on watthour meters.

$190

ANSI C12.5-1978 (R2002, R2012)
American National Standard for Thermal Demand Meters
Establishes the physical aspects and acceptable performance criteria for 0.2 and 0.5 accuracy class electricity meters meeting Blondel’s Theorem.

$116

American National Standard for Phase-Shifting Devices Used in Metering, Marking and Arrangement of Terminals
Applies to phase-shifting devices designed to provide the proper lagged voltages required for kVAR and kVA measurement.

$207

ANSI C12.7-2014
American National Standard for Requirements for Watthour Meter Sockets
Covers the general requirements and pertinent dimensions applicable to watthour meter sockets rated up to and including 600 V and up to and including 320 A continuous duty per socket opening.

$106

American National Standard for Test Blocks and Cabinets for Installation of Self-Contained A-Base Watthour Meters
Covers the dimensions and functions of test blocks and cabinets used in self-contained A-base watthour meters.

$57

ANSI C12.9-2014
American National Standard for Test Switches and Plugs for Transformer-Rated Meters
Encompasses the dimensions and functions of meter test switches used with transformer-rated watthour meters in conjunction with instrument transformers and test plugs used in conjunction with the test switch.

$84

ANSI C12.10-2011
American National Standard for Physical Aspects of Watthour Meters—Safety Standard
Covers the physical aspects of both detachable and bottom-connected watthour meters and associated registers including ratings, internal wiring arrangements, pertinent dimensions, markings and other general specifications.

$229

ANSI C12.11-2006 (R2014)
American National Standard for Instrument Transformers for Revenue Metering, 10 kV BIL through 350 kV BIL (0.6 kV NSV through 69 kV NSV)
Covers the general requirements, metering accuracy, thermal ratings and dimensions applicable to current and inductively coupled voltage transformers for revenue metering.

$299

ANSI C12.18-2006 (R2016)
American National Standard for Protocol Specification for ANSI Type 2 Optical Port
Details the criteria required for communications between a C12.18 device and a C12.18 client via an optical port. The C12.18 client may be a handheld reader, a portable computer, a master station system or another electronic communications device.

$119

ANSI C12.19-2012
American National Standard for Utility Industry End Device Data Tables
Defines a Table structure for utility application data to be passed between an End Device and any other device. It neither defines device design criteria nor specifies the language or protocol used to transport that data. The Tables defined in this Standard represent a data structure that shall be used to transport the data, not necessarily the data storage format used inside the End Device.

$449

ANSI C12.20-2015
American National Standard for Electricity Meters—0.2 and 0.5 Accuracy Classes
Establishes the physical aspects and acceptable performance criteria for 0.2 and 0.5 accuracy class electricity meters meeting Blondel’s Theorem.

$116

ANSI C12.21-2006 (R2016)
American National Standard for Protocol Specification for Telephone Modem Communication
Details the criteria required for communications between a C12.21 device and a C12.21 client via a modem connected to the switched telephone network. The C12.21 client could be a laptop or portable computer, a master station system or another electronic communications device.

$149
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American National Standard for Electricity Metering Data Exchange – The DLMS/COSEM Suite Part 8-20: Mesh Communication Profile for Neighbourhood Networks  
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ANSI Z535.2-2011 (R2017)
American National Standard for Environmental and Facility Safety Signs
Regulates requirements for the design, application, and use of safety signs in facilities and in the environment through consistent visual layout. Reorganized to best describe the five types of safety signs used in facilities, the 2011 edition of this Standard is revised to better harmonize with ANSI Z535.4, ANSI Z535.5, and ANSI Z535.6.
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ANSI Z535.3-2011 (R2017)
American National Standard for Criteria for Safety Symbols
Provides general criteria for the design, evaluation, and use of safety symbols to identify and warn against specific hazards and information to avoid personal injury.
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ANSI Z535.4-2011 (R2017)
American National Standard for Product Safety Signs and Labels
Delivers specifications for design, application, use, and placement of safety signs and labels on a wide variety of products. A new type of product safety sign, the “safety instruction sign,” was added to join the existing types of signs, hazard alerting signs, and safety notice signs, which were also more clearly defined and named in this edition. The definitions for “accident,” “harm,” and “incident” were refined to more clearly delineate a separation between physical injury and other safety-related issues (e.g., property damage). It was revised to correspond with ANSI Z535.2, ANSI Z535.5, ANSI Z535.6.
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ANSI Z535.1-2017
American National Standard for Safety Colors
Sets forth the technical definitions, color Standards, and color tolerances for safety colors.
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## Standards & Other Publications: Safety

### ANSI Z535.5-2011 (R2017)
**American National Standard for Safety Tags and Barricade Tapes (for Temporary Hazards)**

Discusses tag and tapes, which are used only until the identified hazard is eliminated or the hazardous operation is completed. The Z535.5-2011 edition was revised to link with ANSI Z535.2, ANSI Z545.4, and ANSI Z535.6. The Safety Instructions Tag was added in addition to the existing types of signs, hazard alerting tags, and barricade tapes, as well as safety notice tags and barricade tapes, which were more clearly defined and named in this edition. Industries (typically manufacturing and construction) that employ lockout/tagout procedures or have a need to mark an area affected by a temporary hazard will find this Standard beneficial.

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#### NEMA GD 1-2019
**Evaluating Water-Damaged Electrical Equipment**

Provides advice on the safe handling of electrical equipment that has been exposed to water. Outlines items that will require complete replacement or that can be reconditioned by a trained professional. Equipment covered includes electrical distribution equipment, motor circuits, power equipment, transformers, wire, cable and flexible cords, wiring devices, GFCIs and surge protectors, lighting fixtures and ballasts, motors and electronic products.

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#### NEMA GD 2-2016
**Evaluating Fire- and Heat-Damaged Electrical Equipment**

Provides information on how to evaluate electrical equipment that has been exposed to heat and fire residue through fire, firefighting activities, or close proximity to a fire. It is designed for use by suppliers, installers, inspectors, and users of electrical products.

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#### NEMA WT 1-2018
**Wireless Communications Technology for Fire and Life Safety Systems**

Provides a brief overview of wireless technology currently available and how it impacts the life safety industry today.

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### Supply Chain Security

#### NEMA CPSP 1-2015
**Supply Chain Best Practices**

Identifies a recommended set of supply chain best practices and guidelines that electrical equipment and medical imaging manufacturers can implement during product development to minimize the possibility that bugs, malware, viruses, or other exploits can be used to negatively impact product operation. As opposed to being an all-inclusive document, it is a representation of identified best practices that vendors can implement as they develop, manufacture, and deliver products as part of the supply chain.

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#### NEMA CPSP 2-2018
**Cyber Hygiene Best Practices**

Identifies a set of industry best practices and guidelines for electrical equipment and medical imaging manufacturers to help raise their level of cybersecurity sophistication in their manufacturing facilities and engineering processes.

<table>
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#### NEMA CPSP 3-2019
**Cyber Hygiene Best Practices**

Identifies industry best practices and guidelines that electrical equipment and medical imaging manufacturers may consider when providing cybersecurity information to their customers.

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<tbody>
<tr>
<td>NEMA IOTP 1-2018 Cyber Hygiene Best Practices Part 2</td>
<td>No charge</td>
<td>Explores the conflict between limitations on what is commonly referred to as standby power and the potential services and benefits of connected devices in the Internet of Things (IoT) and Industrial Internet of Things (IIoT).</td>
</tr>
<tr>
<td>NEMA 260-1996 (R2004, R2019) Safety Labels for Pad-Mounted Switchgear and Transformers Sited in Public Areas</td>
<td>$67</td>
<td>Details the labeling used on pad-mounted switchgear and transformers sited in public areas adjacent to residential properties, shopping centers and schools. May be used for equipment sited in utility or industrial properties that are not normally accessible to the general public. Contains Mr. Ouch labels.</td>
</tr>
<tr>
<td>NEMA ST 20-2014 Dry Type Transformers for General Applications</td>
<td>$9</td>
<td>Applies to single-phase and polyphase dry type transformers (including both autotransformers and noncurrent limiting reactors) for supplying energy to power, heating, and lighting circuits.</td>
</tr>
<tr>
<td>NEMA TS 1-1989 (R1994, R2000, R2005) Traffic Control Systems (Not Recommended for New Designs)</td>
<td>$163</td>
<td>Defines traffic-signaling equipment used to facilitate and expedite the safe movement of vehicular and pedestrian traffic. This Standard has been reaffirmed to make it available for support of legacy traffic-control equipment. For new equipment installations, use TS 2.</td>
</tr>
<tr>
<td>NEMA TS 2-2003, Amendment 3 Contactor Amendment</td>
<td>$185</td>
<td>Modifies Figure 5-4, and Section 5.4.2.3, and adds a new Section 5.4.3.2.1.</td>
</tr>
<tr>
<td>NEMA TS 2-2003, Amendment 4 Flashing Yellow Arrow (FYA) Amendment</td>
<td>No charge</td>
<td>Revises NEMA TS 2-2003 (R2008) in four places to address Flashing Yellow Arrow (FYA), specifically by assigning a bit as “FYA Flash Rate Failure; including language addressing FYA operation; and including language addressing FYA and MMUs.</td>
</tr>
<tr>
<td>NEMA TS 4-2016 Hardware Standards for Dynamic Message Signs (DMS) with NTCIP Requirements</td>
<td>$320</td>
<td>Covers traffic signaling equipment used to facilitate and expedite the safe movement of pedestrians and vehicular traffic. Incorporates the “Flashing Yellow Arrow” feature, as well as associated configuration, pin assignment, and other related information. A list of revisions from NEMA TS 2-2003 (R2008) is included.</td>
</tr>
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NEMA TS 5-2017
Portable Traffic Signal Systems (PTSS) Standard
Covers traffic signaling equipment used to enable and expedite the safe movement of vehicle traffic and the work that goes on in a work zone.
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NEMA TS 8-2018
Cyber and Physical Security for Intelligent Transportation Systems (ITS)
Allows agencies and other transportation infrastructure owner/operators to implement cyber- and physical-security for the intelligent transportation system (ITS) portion of surface transportation systems.
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NEMA WC 26/EEMAC 201-2008
Binational Wire and Cable Packaging Standard
Covers uniform requirements for packaging electrical wire and cable for the North American wire and cable industry.
$108
Buy Now

NTCIP 1104 v01
Center-to-Center Naming Convention Specification
Defines the naming service for common object request broker architecture (CORBA) for use in center-to-center communications in the transportation domain, and lists the requirements for establishing names for management systems and for the objects managed by those systems. May also be referenced by non-CORBA Standards to define how certain items should be named.
$57
Buy Now

NTCIP 1201 v03
Global Object (GO) Definitions
Identifies and defines object definitions that may be supported by multiple device types (e.g., actuated signal controllers and variable message signs). The grouping of objects for a given device type is performed in the device type-specific object definition Standard.
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Buy Now

NTCIP 1202 v03
Object Definitions for Actuated Signal Controllers (ASC) Interface
Identifies and defines object definitions that may be supported by an ASC.
$268
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NTCIP 1202:2005
Object Definitions for Actuated Traffic Signal Controller (ASC) Units—Version 02
Identifies and defines object definitions that may be supported by an ASC.
$255
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NTCIP 1203 v03
Object Definitions for Dynamic Message Signs (DMS)
Defines requirements, data elements and conformance requirements applicable to all NTCIP DMS. Data elements are defined using the Simple Network Management Protocol (SNMP) object-type format as defined in RFC1212 and would typically be exchanged using one of the NTCIP-recognized application layers (e.g., SNMP). Formerly TS 3.6. NTCIP 1203 v03 now includes Test Procedures (Annex C). This is a revision of NTCIP 12032011.
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NTCIP 1204 v03
Environmental Sensor Station (ESS) Interface Protocol
Provides definitions of data elements for use with ESS. NTCIP 1204 v03 now includes Test Procedures in Annex C.
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NTCIP 1205:2001
Object Definitions for Closed-Circuit Television (CCTV) Camera Control
Defines objects that are specific to CCTV and standardized object groups that can be used for conformance statements. Limited to the functionality related to CCTV camera control within a transportation environment.
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<tr>
<td>NTCIP 1206:2005</td>
<td>Object Definitions for Data Collection and Monitoring (DCM) Devices</td>
<td>Defines data elements used for the configuration control and status monitoring of transportation data collection devices. The scope of this document is limited to the functionality related to DCMs used within a transportation environment.</td>
<td>$298</td>
</tr>
<tr>
<td>NTCIP 1207 v02</td>
<td>Object Definitions for Ramp Meter Control (RMC) Units</td>
<td>Defines communication protocol for ramp metering control (RMC) units. Communicating together, RMC units detect both traffic on the main roadway and queued traffic preparing to enter the main roadway, optimizing traffic flow for both. RMC units include a field controller, its suite of sensors, and its warning signs and signals, as well as main roadway and queue detection stations.</td>
<td>$249</td>
</tr>
<tr>
<td>NTCIP 1208:2005</td>
<td>Object Definitions for Closed-Circuit Television (CCTV) Switching</td>
<td>Defines data elements specific to CCTV switches and standardized data element groups that can be used for conformance statements. Limited to the functionality related to CCTV switches within a transportation environment.</td>
<td>$161</td>
</tr>
<tr>
<td>NTCIP 1209 v02</td>
<td>Object Definitions for Transportation Sensor Systems (TSS)</td>
<td>Defines data elements used to monitor and control TSS devices for detecting and communicating certain traffic parameters. Describes a zone, virtual zone and sensor, and how zones can be grouped.</td>
<td>$213</td>
</tr>
<tr>
<td>NTCIP 1210 v01</td>
<td>Field Management Stations (FMS)—Part 1: Object Definitions for Signal System Masters (SSM)</td>
<td>Defines communication requirements among some elements of a traffic management system, specifically the green, yellow, and red indications at a local intersection; a signal system master (also called a “field master,” managing traffic indications at about two to ten nearby, local intersections); and a Traffic Management Center, responsible for traffic management in a wider geographic area.</td>
<td>$250</td>
</tr>
<tr>
<td>NTCIP 1211 v02</td>
<td>Object Definitions for Signal Control and Prioritization (SCP)</td>
<td>Includes requirements for communication and management of multiple requests for priority or preferential treatment of different classes of vehicles, such as transit or emergency service, among others. NTCIP 1211 v02 defines a method of granting priority to one signal while maintaining coordination with adjacent intersections. NTCIP 1211 v02 includes User Needs, Functional Requirements, and a Protocol Requirements List (PRL). NTCIP 1211 v02 also addresses “absolute time” as a request parameter.</td>
<td>$229</td>
</tr>
<tr>
<td>NTCIP 1213 v02</td>
<td>Object Definitions for Electrical and Lighting Management Systems (ELMS)</td>
<td>Provides object definitions for communication between a Traffic Management Center (TMC) and ELMS devices (a roadside luminaire and its sensors, for example), to control or monitor various functions, including dimming; light-activated, scheduled or manual operation; or power meter measurement.</td>
<td>$216</td>
</tr>
<tr>
<td>NTCIP 2101:2001</td>
<td>Point to Multi-Point Protocol Using RS-232 Subnetwork Profile</td>
<td>Applies to transportation-related devices that operate in a typical primary/secondary configuration where one device is the designated primary while one or more other devices are connected to one channel acting as secondaries. As a subnetwork profile, specifies a set of protocols and Standards applicable to the data link and physical layers of the Open Systems Interconnection (OSI) Basic Reference Model.</td>
<td>$67</td>
</tr>
<tr>
<td>NTCIP 2102:2003</td>
<td>Point to Multi-Point Protocol Using FSK Modem Subnetwork Profile</td>
<td>Applies to transportation-related devices that operate in a typical primary/secondary configuration where one device is the designated primary while one or more other devices are connected to one channel acting as secondaries.</td>
<td>$106</td>
</tr>
<tr>
<td>NTCIP 2103 v02</td>
<td>Point-to-Point Protocol over RS-232 Subnetwork Profile</td>
<td>Applies to transportation-related devices that operate in a point-to-point configuration where exactly two devices (peers) are connected by a logical physical layer communications link. As a subnetwork profile, specifies a set of protocols and Standards applicable to the data link and physical layers of the Open Systems Interconnection (OSI) Basic Reference Model.</td>
<td>$174</td>
</tr>
</tbody>
</table>
NTCIP 2104:2003
Ethernet Subnetwork Profile
Applies to transportation devices and management systems. Specifies a set of protocols and Standards applicable to the data link and physical layers of the Open Systems Interconnection (OSI) Reference Model. Specifies a combination of ISO/IEC Standards that collectively provides for connectionless and connection-oriented data link services on a common, shared media.

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NTCIP 2201:2003
Transportation Transport Profile
Applies to transportation devices and management systems, and specifies a set of procedures applicable to the transport and network layers of the Open Systems Interconnection (OSI) Reference Model. Provides a linking mechanism between the application and subnetwork profiles in non-networked environments.

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NTCIP 2202:2001
Internet (TCP/IP and UDP/IP) Transport Profile
Applies to transportation-related devices that operate in a typical primary/secondary configuration where one device is the designated primary while one or more other devices are connected to one channel acting as secondaries. As a subnetwork profile, specifies a set of protocols and Standards applicable to the data link and physical layers of the Open Systems Interconnection (OSI) Basic Reference Model.

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NTCIP 2301 v02
Simple Transportation Management Framework (STMF) Application Profile (AP) (AP-STMF)
Applies to transportation devices and management systems. Provides message authentication, information management and data representation services, as well as protocols specific to Open Systems Interconnection (OSI) Basic Reference Model layers.

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NTCIP 2302:2001
Trivial File Transfer Protocol Application Profile
Applies to traffic control and transportation-related devices that must operate in an Intelligent Transportation System.

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NTCIP 2303:2001
File Transfer Protocol Application Profile
Applies to traffic control and transportation devices. Specifies a set of protocols and Standards for the application, presentation and session layers of the Open Systems Interconnection (OSI) Basic Reference Model, for block or file transfers to or from roadside devices.

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NTCIP 2304:2002
Application Profile for DATEX-ASN (AP-DATEX)
Applies to communications between any two management subsystems within a transportation environment. Lists the requirements for a traditional approach for data exchange.

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NTCIP 2306 v01
Application Profile for XML Message Encoding and Transport in ITS Center-to-Center Communications
Defines an application profile for communications between transportation management systems, using internet Standards based on the Extensible Markup Language (XML). Defines requirements and optional and conditional clauses applicable to the specific environments for which they are intended.

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NTCIP 8003:2001
Profile Framework
Applies to traffic control and transportation-related devices and provides the terminology, content, structure and organization of NTCIP-standardized profiles.

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NTCIP 8004 v02
Structure and Identification of Management Information (SMI)
Defines the SMI used in transportation-related devices and contains mandatory requirements applicable to all devices claiming conformance, as well as options and conditional requirements that may be applicable to a specific environment.

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NTCIP 8005 v01
Procedures for Creating Management Information Base (MIB) Files
Defines processes to verify the correctness of a MIB in NTCIP data dictionary Standards, and to prepare a stand-alone version of the MIB. Covers policies and procedures for MIB development and maintenance. Defines requirements for use by NTCIP data stewards in checking MIBs, coordinating all NTCIP device data dictionaries and working with other entities using NTCIP MIBs.

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### NTCIP 8007 v01
Testing and Conformity Assessment Documentation within NTCIP Standards Publications
Defines requirements to be used by NTCIP working groups in producing test documentation as part of the NTCIP Standards process.
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### NTCIP 9001 v04
The NTCIP Guide
Assists NTCIP implementers in understanding relationships among various Standards publications within the NTCIP family, as well as how and when to use selected NTCIP Standards publications.
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### NEMA USER GUIDE
User Guide to Product Specifications for Electrical Building Wire and Cable
Lists commonly used electrical building wire and cable and the applicable U.S. Standards recognized by the NEC®.
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### ANSI/NEMA HP 4-2012
Electrical and Electronic Fluorinated Ethylene Propylene (FEP) Insulated High-Temperature Hook-Up Wire, Types KT (250 V), K (600 V) and KK (1,000 V)
Covers specific requirements for FEP insulated solid and stranded wire designed for the internal wiring of high-reliability electrical and electronic equipment.
$79
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### ANSI/NEMA HP 5-2013
Electrical and Electronic Crosslinked, Modified Polyethylene (XLPE) Insulated 125°C Hook-Up Wire, Types L (600 V), LL (1,000 V) and LX (3,000 V)
Covers specific requirements for crosslinked, modified polyethylene insulated solid and stranded wire, designed to the internal wiring of high-reliability electrical and electronic equipment.
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### ANSI/NEMA HP 6-2013
Electrical and Electronic Silicone and Silicone-Braided Insulated Hook-Up Wire Types S (600 V), ZHS (600 V), SS (1,000 V), ZHSS (1,000 V) and SSB Braided (1,000 V)
Covers requirements for silicone rubber-insulated stranded wire used in the internal wiring of high-reliability electrical and electronic equipment. The Standard permits continuous conductor temperature ratings of -55°C to +150°C (tin-copper) or +200°C (silver-copper) with either tin-coated or silver-coated conductors. Replaces MIL-W-16878 silicone rubber-insulated wire slash sheets (/7, /8, /29 through /32).
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### ANSI/NEMA HP 8-2013
Electrical and Electronic Cross-Linked, Modified Low-Smoke Polyolefin (XLPO) Insulated Hook-Up Wire, Types LS (rated 105°C; 600 V), ZHDM (rated 90°C; 600 V), ZHDM (rated 90°C; 600 V), ZH (rated 125°C; 600 V), and ZHX (rated 125°C; 1,000 V)
Covers specific requirements for crosslinked, modified, polyolefin insulated solid and stranded wire, designed to the internal wiring of high-reliability electrical and electronic equipment.
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### ANSI/NEMA HP 9-2014
Electrical and Electronic Ethylene-Propylene Diene Elastomer (EPDM) Insulated Hook-Up Wire, Types EP (Rated 125°C; 600 V) and EPD (Rated 125°C; 5000 V)
Covers specific requirements for Ethylene-Propylene Diene Elastomer insulated solid and stranded wire, designed to the internal wiring of high-reliability electrical and electronic equipment.
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### ANSI/NEMA MW 1000-2015 Supplement
Supplement to ANSI/NEMA MW 1000 Reference Requirements for Round Film-insulated Magnet Wire
Provides users of MW 1000 with a convenient and concise reference to common performance requirements for film-insulated magnet wire constructions according to conductor material and insulation build. In the case of any discrepancies between this supplement and MW 1000, the requirements in MW 1000 prevail.
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ANSI/NEMA MW 1000-2018
Magnet Wire
Contains specifications for round, rectangular, and square film-insulated and/or fibrous-covered copper and aluminum magnet wire for use in electrical apparatus. Included are the definitions, type designations, dimensions, constructions, performance, and test methods for magnet wire generally used in the winding of coils for electrical apparatus. Visit www.MW1000.com for additional information about ANSI/NEMA MW 1000 and a summary of amendments to the Standard.
$300
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ANSI/NEMA WC 51/
ICEA P-54-440-2009 (R2014)
Ampacities of Cables Installed in Cable Trays
This Standards Publication covers the ampacity ratings for 600-15,000 volt solid dielectric cables installed in cable trays. Ampacity ratings are tabulated for single conductor cables, triplexed assemblies of single conductor cables, and three-conductor cables incorporating an overall jacket. Ampacities have been tabulated for the cable constructions and the operating conditions normally encountered for tray applications. Correction factors to adjust the tabulated values to better reflect specific conditions are provided. These include adjustments to account for ambient and operating temperatures, cable construction, tray covers, and diversification of the cable loading.
$140
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ANSI/NEMA WC 53/
ICEA T-27-581-2016
Standard Test Methods for Extruded Dielectric Power, Control, Instrumentation, and Portable Cables for Test
Applies to the testing of extruded dielectric insulated power, control, instrumentation and portable cables.
$170
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ANSI/NEMA WC 54/
ICEA T-26-465-2013
Guide for Frequency of Sampling Extruded Dielectric Power, Control, Instrumentation and Portable Cables for Test
Provides a combination of plans for frequencies at which cable samples may be obtained for tests to determine conformance to appropriate requirements of ICEA Standards publications.
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ANSI/NEMA WC 55021-2013
(PA2019)
Standard for Military Internal Electrical Cable
Covers specific requirements for finished cables. The cables are intended for internal wiring of electrical equipment for use in the hook-up of various electronic assemblies. The component wires are covered by other reference Standards. Cables constructed with PVC insulated wires or jackets are not to be used for aerospace applications.
$83
Buy Now

ANSI/NEMA WC 57
/ICEA S-73-532-2014
Standard for Control, Thermocouple Extension, and Instrumentation Cables
Applies to materials, construction and testing of multiconductor control, thermocouple extension and instrumentation cables rated up to and including 125°C.
$188
Buy Now

ANSI/NEMA WC 58/
ICEA S-75-381-2017
Portable and Power Feeder Cables for Use in Mines and Similar Applications
Applies to materials, construction and testing of insulated cables used for the distribution of electrical energy in surface and underground mines and similar applications. Included are portable cables for use in mining machines, dredges, shovels and the like, and mine power cables for use as connections between units of mine distribution systems.
$236
Buy Now

ANSI/NEMA WC 61-2005 (R2015)
American National Standard for Transfer Impedance Testing
This Standard is intended to provide a reliable surface transfer impedance test method for coaxial cables and shielded multiconductor cables over the frequency range from DC to 100 MHz.
$76
Buy Now

ANSI/NEMA WC 63.2-1996 (R2003)
Performance Standard for Coaxial Premise Data Communications Cables
Defines minimum electrical performance characteristics, material and mechanical specifications of premise wiring cables for data applications. Includes definitions and applicable test methods.
$53
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ANSI/NEMA WC 66/
ICEA S-116-732-2013
Standard for Category 6 and 6A, 100 Ohm, Individually Unshielded Twisted Pairs, Indoor Cables (With or Without an Overall Shield) for Use in LAN Communication Wiring Systems
 Defines minimum electrical performance and allowable conductor sizes, stranding and shielding for premise wiring cables for voice and data applications for 100 ohm shielded and unshielded twisted pair cables. $101
Buy Now

ANSI/NEMA WC 67-2015
American National Standard for Uninsulated Conductors—Used in Electrical and Electronic Applications
Covers single-end (solid) and stranded, coated and uncoated copper, coated copper alloy, coated copper-clad steel, aluminum and thermocouple extension uninsulated conductors used primarily in insulated wires for aerospace, electrical, electronic and other high-performance applications. $106
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ANSI/NEMA WC 70/
ICEA S-95-658-2009
Power Cables Rated 2,000 V or Less for the Distribution of Electrical Energy
Applies to materials, construction and testing of 2,000 V and below thermoplastic and thermoset insulated wires and cables used for the transmission and distribution of electrical energy for normal conditions of installation and service, either indoors, outdoors, aerial, underground or submarine. $250
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ANSI/NEMA WC 71/ICEA S-96-659-2014
Standard for Non-Shielded Cables Rated 2,001-5,000 V for Use in the Distribution of Electric Energy
Applies to materials, construction and testing of 2001 through 5000 V nonshielded power cables having insulations of thermoplastic polyethylene, cross-linked polyethylene or cross-inked rubber. $186
Buy Now

ANSI/NEMA WC 74/
ICEA S-93-639-2017
5-46 kV Shielded Power Cable for Use in the Transmission and Distribution of Electric Energy
Applies to materials, constructions and testing of 5,000 V to 46,000 V shielded crosslinked polyethylene, and ethylene propylene rubber insulated wires and cables used for the transmission and distribution of electrical energy for normal conditions of installation and service, either indoors, outdoors, aerial, underground or submarine. $267
Buy Now

ANSI/NEMA WC 75-2015
Standard for Controlled Impedance in Internal Electrical Cable
Developed to cover specific requirements for finished cables with controlled impedance twisted pairs. It enables a user to specify various numbers of pairs (1–61) with a required impedance requirement, and tailor the materials to meet a specific end application. $83
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ANSI/NEMA WC 76-2018
Standard for Controlled Impedance Shielded Twisted Pairs in Internal Electrical Cable
Covers specific requirements for finished cables with controlled impedance shielded twisted pair(s). This Standard enables users to specify various numbers of shielded pairs (1–61) with a required impedance requirement, and tailor the materials to meet a specific end application. $83
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ANSI/NEMA WC 27500-2015
American National Standard for Aerospace and Industrial Electrical Cable
Contains requirements for finished aerospace and industrial electrical cables. The component wires are covered by other referenced Standards. These cables are intended for signal and low-voltage power applications with defined environment or temperature conditions found in commercial aircraft, military aircraft, and high performance vehicles. $139
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ANSI/NEMA WC 55021-2013
Standard for Military Internal Electrical Cable
Covers specific requirements for finished cables. The cables are intended for internal wiring of electrical equipment for use in the hook-up of various electronic assemblies. The component wires are covered by other reference Standards. Cables constructed with PVC insulated wires or jackets are not to be used for aerospace applications. $79
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NEMA BWCP 1-2017
The Evolution of Aluminum Conductors Used for Building Wire and Cable
Describes the history of the discovery, application and acceptance of the AA-8000 series of aluminum conductors for building wire and cable applications. This series of alloys was discovered to have excellent characteristics with respect to strength, ductility, and thermal stability.
No charge
Buy Now

NEMA HP 7-2011
Electrical and Electronic PVC, PVC/Nylon, and PE/Nylon 105ºC Hook-Up Wire, Types B, C, D, BN, CN, and DN (600, 1000, and 3000 V), and Types J and JN 75ºC (600V)
Covers specific requirements for PVC, PVC/polyamide, PE, and PE/polyamide insulated stranded wire designed to the internal wiring of high reliability electrical and electronic equipment.
$89
Buy Now

NEMA HP 100-1991 (R1999, R2005, R2010) Series (HP 100-100.4)
High-Temperature Instrumentation and Control Cables
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<td>Examines the measurement of the radiofrequency coil surface temperature increase, which is induced by the radiofrequency fields in magnetic resonance imaging. Testing methods are provided for detachable RF receive coils, detachable transmit/receive coils, detachable transmit coils, and integrated body coils.</td>
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<td><strong>NEMA XR 16-1991 (R1996, R2001)</strong></td>
<td>Test Standard for the Determination of the System Contrast Ratio (SCR) and the System Veiling Glare Index (SVGI) of an X-Ray Image Intensifier (XRII) System. Determines the SCR and the SVGI at the center of the image produced by an XRII system under a given set of test conditions. The measurement procedures described pertain to images formed by photofluorographic film, cine film, video and direct-viewing systems.</td>
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<td><strong>NEMA XR 22-2006</strong></td>
<td>Quality Control Manual Template for Manufacturers of Displays and Workstations Labeled for Final Interpretation in Full-Field Digital Mammography (FFDM). Defines the minimum set of quality control tests to be applied to a manufacturer’s product labeled for final interpretation of images acquired using an FFDM image-acquisition system.</td>
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<td><strong>NEMA XR 23-2006</strong></td>
<td>Quality Control Manual Template for Manufacturers of Hardcopy Output Devices Labeled for Final Interpretation in Full-Field Digital Mammography (FFDM). Features templates that provide a consistent presentation format and a minimum set of quality control tests that should be included as part of the quality assurance plan of a hardcopy output device (e.g., printer) labeled for final interpretation in an FFDM system.</td>
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<td><strong>NEMA XR 25-2019</strong></td>
<td>Computed Tomography Dose Check. Specifies an equipment feature for CT scanners to produce dose-related notification and alert messages to inform operators prior to scanning if the estimated dose would exceed the preset levels.</td>
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<td><strong>NEMA XR 26-2012</strong></td>
<td>Access Controls for Computed Tomography—Identification, Interlocks, and Logs. Applies to the particular functioning of a CT system (as covered by the scope of IEC 60601-2-44) as it relates to who has access/permission to use the system for clinical or other uses. Includes being able to assign specific permissions to selected uses that are above those needed for daily routine scanning, such as the authorization to save protocols and adds provisions to secure the user interface based on a manual lock. Contains the functionality for use in a facility’s quality assurance program such as capturing operator and patient information as well as information related to saved changes in protocols.</td>
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www.aifittings.com

Bridgeport Fittings, Inc.
www.bptfittings.com

Cooper Wiring Devices by Eaton
www.cooperwiringdevices.com

Emerson Automation Solutions
www.egsseg.com

Hubbell Wiring Device-Kellems
www.hubbell-wiring.com
### PRODUCTS & MANUFACTURERS: Conduits

| IPEX USA, LLC | www.ipexamerica.com |
| Killark, a division of Hubbell, Inc. | www.hubbell-killark.com |
| Legrand, North America | www.legrand.us |
| Madison Electric Products | meproducts.net |
| Pass & Seymour by Legrand | www.passandseymour.com |
| nVent ERICO | www.nvent.com |
| Producto Electric Corporation | www.pecoelect.com |
| Raco by Hubbell, Inc. | www.hubbell.com/raco/en |
| Republic Conduit | www.republicconduit.com |
| Robroy Industries, Inc. | www.robroy.com |
| Sigma Electric Manufacturing Corporation | www.sigmalectric.com |
| Steel Electric Products Company | www.sepco-usa.com |
| TayMac by Hubbell, Inc. | www.taymac.com |
| Western Tube Division of Zekelman | www.westernetube.com |
| Wheatland Tube Company | www.wheatland.com |

**Flexible Metal Conduit**

| AFC Cable Systems, Inc., a part of Atkore International | www.afcweb.com |
| Anamet Electrical, Inc. | www.anacondasealtite.com |
| Copperweld B-Metallics | www.copperweld.com |
| Electri-Flex Company | www.electriflex.com |
| Encore Wire Corporation | www.encorewire.com |
| International Metal Hose Company | www.metalhose.com |
| Southwire Company | www.southwire.com |

**Distribution Automation**

| ABB Inc. | www.abb.com |
| Eaton | www.eaton.com/electricalusa |
| G&W Electric Company | www.gwelec.com |
| GE Grid Solutions | www.gegridsolutions.com |
| Honeywell Smart Energy | www.elsterelectricity.com |
| Hubbell Power Systems | www.hubbellpowersystems.com |
| Itron, Inc. | www.itron.com |
| Mitsubishi Electric Power Products, Inc. | www.meppi.com |
| S&C Electric Company | www.sandc.com |
| Schneider Electric | www.schneider-electric.us |
| Siemens Industry, Inc. | www.usa.siemens.com/industry |

**Energy Storage Systems**

| ABB Inc. | www.abb.com |
| Eaton | www.eaton.com/electricalusa |
| Schneider Electric | www.schneider-electric.us |
| Tesla Inc. | www.teslamotors.com |

**Electrical Submeter**

| Continental Control Systems, LLC | www.ccontrolsys.com |
| Dent Instruments, Inc. | www.dentinstruments.com |
| Eaton | www.eaton.com/electricalusa |
| EZ Meter Technologies | www.ezmeter.com |
| GE Grid Solutions | www.gegridsolutions.com |
| Honeywell Building Technologies | www.honeywell.com |
| Honeywell Smart Energy | www.elsterelectricity.com |
| Leviton Manufacturing Company, Inc. | www.leviton.com |
| Panoramic Power Ltd. | www.panpwr.com |
| Quadlogic Controls Corporation | www.quadlogic.com |
| Schneider Electric | www.schneider-electric.us |
| Setra Systems, Inc. | www.setra.com |
| Siemens Industry, Inc. | www.usa.siemens.com/industry |
| TE Connectivity | www.te.com |
| Triacta Power Solutions LP | www.triacta.com |
| Universal Electric Corporation | www.uecorp.com |

**Electric Vehicle Supply Equipment/System**

| ABB Inc. | www.abb.com |
| ChargePoint, Inc. | www.chargepoint.com |
| ClipperCreek, Inc. | www.clippercreek.com |
Conductix, Inc.
www.conductix.us
Hubbell Incorporated
www.hubbell.com
Leviton Manufacturing Company, Inc.
www.leviton.com
Schneider Electric
www.schneider-electric.us
Siemens Industry, Inc.
www.usa.siemens.com/industry
Southwire Company
www.southwire.com
TE Connectivity
www.te.com

Enclosures

Allied Moulded Products, Inc.
www.alliedmoulded.com
AmeriTex Machine and Fabrication, LLC
www.ameritexllc.com
Arlington Industries, Inc.
www.aifittings.com
Boltswitch, Inc.
www.boltswitch.com
Connector Manufacturing Company, a subsidiary of Burndy, LLC
www.cmclugs.com
Eaton
www.eaton.com/electricalusa
Emerson Automation Solutions
www.egseg.com
Hubbell Incorporated
www.hubbell.com
Hubbell Wiegmann, a subsidiary of Hubbell Incorporated
www.hubbell-wiegmann.com
IPEX USA, LLC
www.ipexna.com/usa
Killark, a division of Hubbell, Inc.
www.hubbell-killark.com
Legrand, North America
www.legrand.us
Milbank Manufacturing Company
www.milbankworks.com
nVent Hoffman
www.nvent.com
Rittal Corporation
www.rittal.us
Robroy Industries, Inc.
www.robroy.com
Schneider Electric
www.schneider-electric.us
Siemens Industry, Inc.
www.usa.siemens.com/industry
Snake Tray
www.snaketray.com
Space Age Electronics, Inc.
www.1sae.com
ABB Installation Products, Inc.
www.tnb.com

Fire, Life Safety, Security and Emergency Communications

Audible and Visible Appliances (Non-Fire or Nurse Call Systems)
Bosch Security Systems
www.boschsecurity.us
Eaton Cooper Safety
www.cooperwheelock.com
Fire-Lite Alarms by Honeywell International, Inc.
www.firelite.com
Gamewell-FCI by Honeywell
www.gamewell-fci.com
Gentex Corporation
www.gentex.com
Honeywell Building Solutions
https://buildingsolutions.honeywell.com
HSI Fire & Safety Group LLC
www.homesafeguard.com
Johnson Controls
www.tycosimplexgrinnell.com
Google Nest
www.nest.com
SDi
www.sdifire.com
Siemens Industry, Inc.
www.usa.siemens.com/industry
Xtralis Inc. (now part of Honeywell)
www.xtralis.com

Fire Protective Signaling Systems, Devices, and Accessories
Bosch Security Systems
www.boschsecurity.us
Eaton Cooper Safety
www.cooperwheelock.com
Fire-Lite Alarms by Honeywell International, Inc.
www.firelite.com
Gamewell-FCI by Honeywell
www.gamewell-fci.com
Gentex Corporation
www.gentex.com
Johnson Controls
www.simplexgrinnell.com
Potter Electric Signal Company, LLC
www.pottersignal.com
Siemens Industry, Inc.
www.usa.siemens.com/industry
Space Age Electronics, Inc.
www.1sae.com
Automatic Detectors (system, single and multiple station)
Apollo America, Inc.
www.apollo-fire.com
Bosch Security Systems
www.boschsecurity.us
Figaro USA, Inc.
www.figarosensor.com
Fire-Lite Alarms by Honeywell International, Inc.
www.firelite.com
Gamewell-FCI by Honeywell
www.gamewell-fci.com
Gentex Corporation
www.gentex.com
Honeywell Building Solutions
https://buildingsolutions.honeywell.com
HSI Fire & Safety Group LLC
www.homesafeguard.com
Johnson Controls
www.tycosimplexgrinnell.com
Google Nest
www.nest.com
SDi
www.sdifire.com
Siemens Industry, Inc.
www.usa.siemens.com/industry
Xtralis Inc. (now part of Honeywell)
www.xtralis.com
Johnston Controls  
www.simplexgrinnell.com

Light Engine America Inc.  

Potter Electric Signal Company, LLC  
www.pottersignal.com

Siemens Industry, Inc.  
www.usa.siemens.com/industry

**Notification Devices**

Bosch Security Systems  
www.boschsecurity.us

Eaton Cooper Safety  
www.cooperwheelock.com

Fire-Lite Alarms by Honeywell International, Inc.  
www.firelite.com

Gamewell-FCI by Honeywell  
www.gamewell-fci.com

Gentex Corporation  
www.gentex.com

Honeywell Building Solutions  
https://buildingsolutions.honeywell.com

Johnson Controls  
www.simplexgrinnell.com

Light Engine America Inc.  

Potter Electric Signal Company, LLC  
www.pottersignal.com

Siemens Industry, Inc.  
www.usa.siemens.com/industry

Valcom  
www.valcom.com

**Fuses**

Eaton’s Bussmann Division  
www.cooperbussmann.com

Littelfuse, Inc.  
www.littelfuse.com

Mersen Electrical Power  
ep-us.mersen.com

**Ground Fault Personnel Protection**

Bryant a Hubbel Company  
www.bryant-electric.com

Eaton Residential & Wiring Devices Division  
www.cooperwiringdevices.com

Eaton  
www.eaton.com/electricalusa

Hubbell Wiring Device-Kellems  
www.hubbell-wiring.com

Legrand, North America  
www.legrand.us

Leviton Manufacturing Company, Inc.  
www.leviton.com

Pass & Seymour by Legrand  
www.passandseymour.com

Schneider Electric  
www.schneider-electric.us

Siemens Industry, Inc.  
www.usa.siemens.com/industry

Technology Research, LLC, a Southwire company  
www.trci.net

Tower Manufacturing Corporation  
www.towermfg.com

Western Automation R & D Corp.  
www.mainsafe.com

Wiremold Cable Management Products by Legrand  
www.wiremold.com

**Grounding Products**

Burndy, LLC  
www.burndy.com

Connector Manufacturing Company, a subsidiary of Burndy, LLC  
www.cmclugs.com

Galvan Industries, Inc.  
www.galvanelectrical.com

Hubbell Power Systems  
www.hubbellpowersystems.com

ILSCO  
www.ilSCO.com

Panduit Corporation  
www.panduit.com

nVent ERICO  
www.ericostore.com

TE Connectivity  
www.te.com

ABB Installation Products, Inc.  
http://tnb.abb.com/weareabb/

**Health Care Communications and Emergency Call Systems**

Aiphone Corporation  
www.aiphone.com

Ascom Wireless Solutions  
www.ascom.us

Austco Marketing & Services USA Ltd  
www.austco.com

Cornell Communications, Inc.  
www.cornell.com

Crest Healthcare Supply  
www.cresthealthcare.com

Curbell Medical Products, Inc.  
www.curbellmedical.com

Eaton  
www.eaton.com/electricalusa

Engineered Electronics, Inc.  
www.eeiusa.com

Hillrom  
www.hill-rom.com

Inovonics  
www.inovonics.com

Philips  
www.usa.philips.com/healthcare

Rauland, a division of AMETEK, Inc.  
www.rauland.com

RF Technologies, Inc.  
www.rft.com

Silversphere, LLC  
www.silversphere.com
<table>
<thead>
<tr>
<th><strong>PRODUCTS &amp; MANUFACTURERS: Lighting</strong></th>
</tr>
</thead>
</table>

**Industrial Automation Control Products & Systems**

**Control/Monitor Switches**
- **ABB Inc.**
  - www.abb.com
- **Carlo Gavazzi Automation Components**
  - www.gavazzionline.com
- **Eaton**
  - www.eaton.com/electricalusa
- **Electro Switch Corporation**
  - www.electroswitch.com
- **Hubbell Incorporated**
  - www.hubbell.com
- **Joslyn Clark Controls, Inc.**
  - www.joslynclark.com
- **Reliance Controls Corporation**
  - www.reliancecontrols.com
- **Rockwell Automation, Inc.**
  - www.rockwellautomation.com
- **Schneider Electric**
  - www.schneider-electric.us
- **WEG Electric Corp.**
  - www.weg.net/us
- **Weidmuller Inc.**
  - www.weidmuller.com

**Motion Control**
- **ABB Inc.**
  - www.abb.com
- **Delta Electronics, Inc.**
  - www.delta-americas.com
- **Mitsubishi Electric Automation, Inc.**
  - www.meau.com
- **Rockwell Automation, Inc.**
  - www.rockwellautomation.com

**Power Electronics**
- **ABB Inc.**
  - www.abb.com
- **ABB Installation Products, Inc.**
  - www.tnb.com
- **Ametek Solidstate Controls**
  - www.solidstatecontrolsinc.com
- **APC by Schneider Electric**
  - www.apc.com
- **Construction Innovations, LLC**
  - www.constructioninnovations.com
- **Delta Electronics, Inc.**
  - www.delta-americas.com
- **Emerson Automation Solutions**
- **Liebert Services**
  - www.liebert.com
- **Mitsubishi Electric Power Products, Inc.**
  - www.meppi.com
- **PDI**
  - www.pdicorp.com
- **Schneider Electric**
  - www.schneider-electric.us
- **SolaHD**
  - www.emerson.com/en-us/automation/solahd
- **Toshiba International Corporation**
  - www.toshiba.com/ind
- **VERTIV**
  - www.vertivco.com/en-us

**System Elements**
- **ABB Inc.**
  - www.abb.com
- **Carlo Gavazzi Automation Components**
  - www.gavazzionline.com

**Insulating Materials**
- **3M Electrical OEM Materials**
  - www.iptllc.net
- **ABB Inc.**
  - www.abb.com
- **Accurate Plastics, Inc.**
  - www.acculam.com
- **DuPont**
  - www.dupont.com
- **ELANTAS PDG, Inc.**
  - www.elantas.com/pdg
- **Iten Industries**
  - www.itenindustries.com
- **Mar-Bal, Inc.**
  - www.mar-bal.com
- **Raychem, a product group of TE Connectivity**
  - raychem.te.com
- **Röchling Glastic Composites**
  - www.glastic.com
- **Sumitomo Electric Interconnect Products, Inc.**
  - www.seipusa.com
- **The Gund Company, Inc.**
  - www.thegundcompany.com

**Lighting**

**Area Lighting**
- **ABB Installation Products, Inc.**
  - www.tnb.com
- **Acuity Brands, Inc.**
  - www.acuitybrandslighting.com

[Sources: Tektone Sound & Signal Manufacturing, Inc.; West-Com Nurse Call System, Inc.; Industrial Automation Control Products & Systems; Control/Monitor Switches; ABB Inc.; Carlo Gavazzi Automation Components; Eaton; Electro Switch Corporation; Hubbell Incorporated; Joslyn Clark Controls, Inc.; Reliance Controls Corporation; Rockwell Automation, Inc.; Schneider Electric; WEG Electric Corp.; Weidmuller Inc.; Motion Control; ABB Inc.; Delta Electronics, Inc.; Mitsubishi Electric Automation, Inc.; Rockwell Automation, Inc.; Schneider Electric; WEG Electric Corp.; Weidmuller Inc.; Power Electronics; ABB Inc.; ABB Installation Products, Inc.; Ametek Solidstate Controls; APC by Schneider Electric; Construction Innovations, LLC; Delta Electronics, Inc.; Emerson Automation Solutions; Liebert Services; Mitsubishi Electric Power Products, Inc.; PDI; Schneider Electric; SolaHD; Toshiba International Corporation; VERTIV; System Elements; ABB Inc.; Carlo Gavazzi Automation Components; Electrical Standards & Products Guide; NEMA]
**PRODUCTS & MANUFACTURERS:** Lighting

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<tr>
<th>Category</th>
<th>Company Name</th>
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<td>Lighting Product</td>
<td>Emerson Automation Solutions</td>
<td><a href="http://www.egseg.com">www.egseg.com</a></td>
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<td>Architectural Area Lighting</td>
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<td>Atlas Lighting Products, Inc.</td>
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<td>Eaton Lighting Solutions</td>
<td><a href="http://www.cooperlighting.com">www.cooperlighting.com</a></td>
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<td>Holophane Company an Acuity Brands Company</td>
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<td>Hubbell Lighting, Inc.</td>
<td><a href="http://www.hubbelllighting.com">www.hubbelllighting.com</a></td>
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<td>Leviton Manufacturing Company, Inc.</td>
<td><a href="http://www.leviton.com">www.leviton.com</a></td>
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<td>Lutron Electronics Company, Inc.</td>
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<td>Osram Sylvania, Inc.</td>
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<td>Signify</td>
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<td>TCP International Holdings Ltd.</td>
<td><a href="http://www.tcpi.com">www.tcpi.com</a></td>
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<td>Universal Lighting Technologies</td>
<td><a href="http://www.unvlt.com">www.unvlt.com</a></td>
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<td>Emergency Lighting</td>
<td>ABB Installation Products, Inc.</td>
<td><a href="http://www.tnb.com">www.tnb.com</a></td>
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<td></td>
<td>Acuity Brands, Inc.</td>
<td><a href="http://www.acuitybrandslighting.com">www.acuitybrandslighting.com</a></td>
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<td>Cree Lighting</td>
<td><a href="http://www.creelighting.com">www.creelighting.com</a></td>
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<td>Eaton Lighting Solutions</td>
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<td><a href="http://www.junolightinggroup.com">www.junolightinggroup.com</a></td>
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<td>KIM Lighting</td>
<td><a href="http://www.kimlighting.com">www.kimlighting.com</a></td>
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<td><a href="http://www.lithonia.com">www.lithonia.com</a></td>
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<td>Prescolite</td>
<td><a href="http://www.prescolite.com">www.prescolite.com</a></td>
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<td></td>
<td>Progress Lighting</td>
<td>progresslighting.com</td>
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<td>RAB Lighting</td>
<td><a href="http://www.rabweb.com">www.rabweb.com</a></td>
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<td><a href="http://www.signify.com">www.signify.com</a></td>
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<td>Ballast and Driver</td>
<td>Acuity Brands, Inc.</td>
<td><a href="http://www.acuitybrandslighting.com">www.acuitybrandslighting.com</a></td>
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<td></td>
<td>Eaton Residential &amp; Wiring Devices Division</td>
<td><a href="http://www.cooperwiringdevices.com">www.cooperwiringdevices.com</a></td>
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<td>GE Current, a Daintree company</td>
<td><a href="http://www.currentbyge.com">www.currentbyge.com</a></td>
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<td>GE Lighting</td>
<td><a href="http://www.gelighting.com">www.gelighting.com</a></td>
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<td>Halco Lighting Technologies</td>
<td><a href="http://www.halcolighting.com">www.halcolighting.com</a></td>
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<td>O-Z/Gedney</td>
<td><a href="http://www.o-zgedney.com">www.o-zgedney.com</a></td>
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<td></td>
<td>Prescolite</td>
<td><a href="http://www.prescolite.com">www.prescolite.com</a></td>
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<td>RAB Lighting</td>
<td><a href="http://www.rabweb.com">www.rabweb.com</a></td>
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<td>Satco Products, Inc.</td>
<td><a href="http://www.satco.com">www.satco.com</a></td>
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<td></td>
<td>Signify</td>
<td><a href="http://www.signify.com">www.signify.com</a></td>
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</table>
Westgate MFG Inc.
www.westgatemfg.com

**Indoor Lighting**
ABB Installation Products, Inc.
www.tnb.com

Acuity Brands, Inc.
www.acuitybrandslighting.com

Architectural Area Lighting
www.aal.net

Atlas Lighting Products, Inc.
www.atlaslightingproducts.com

Columbia Lighting
www.columbia-ltg.com

Cree Lighting
www.creelighting.com

Emerson Automation Solutions
www.egseg.com

Holophane Company an Acuity Brands Company
www.holophane.com

Hubbell Lighting, Inc.
www.hubbelllighting.com

Intense Lighting A Leviton Company
www.intenselighting.com

Juno Lighting Group an Acuity Brands Company
www.junolightinggroup.com

KIM Lighting
www.kimlighting.com

LEDVANCE LLC
www.sylvania.com

Lithonia Lighting, an Acuity Brands Company
www.lithonia.com

MaxLite
www.maxlite.com

Prescolite
www.prescolite.com

Progress Lighting
progresslighting.com

RAB Lighting
www.rabweb.com

Satco Products, Inc.
www.satco.com

Signify
www.signify.com

TCP International Holdings Ltd.
www.tcpi.com

Universal Lighting Technologies
www.unvlt.com

**Lampholders**
Eaton Residential & Wiring Devices Division
www.cooperwiringdevices.com

Hubbell Incorporated Wiring Device-Kellems
www.hubbell-wiring.com

Leviton Manufacturing Company, Inc.
www.leviton.com

Pass & Seymour by Legrand
www.passandseymour.com

TE Connectivity
www.te.com

**Light Source**
Cree, Inc.
www.cree.com

Cree Lighting
www.creelighting.com

EiKO Global, LLC
www.eiko.com

EYE Lighting International of North America, Inc.
www.eyelighting.com

Feit Electric Company, Inc.
www.feit.com

Finally Bulb Light Company, a part of Lucidity Lights, Inc.
www.finallybulbs.com

GE Current, a Daintree company
www.currentbyge.com

GE Lighting
www.gelighting.com

Halco Lighting Technologies
www.halcolighting.com

LEDVANCE LLC
www.ledvance.com

Lutron Electronics Company, Inc.
www.lutron.com

MaxLite
www.maxlite.com

OSRAM Opto Semiconductors GmbH
www.osram-os.com

Oslm Sylvania, Inc.
www.sylvania.com

OttLite Technologies, Inc.
www.ottlite.com

Signify
www.signify.com

Satco Products, Inc.
www.satco.com

Southwire Company
www.southwire.com

TCP International Holdings Ltd.
www.tcpi.com

Universal Lighting Technologies
www.unvlt.com

Westinghouse Lighting
www.westinghouselighting.com

**Lighting Control Devices**
Eaton Residential & Wiring Devices Division
www.cooperwiringdevices.com

Enerlites Inc.
www.enerlites.com

Leviton Manufacturing Company, Inc.
www.leviton.com

Lutron Electronics Company, Inc.
www.lutron.com

Pass & Seymour by Legrand
www.passandseymour.com

Schneider Electric
www.schneider-electric.us

WattStopper
www.wattstopper.com
### Lighting Controls
- **Acuity Brands, Inc.**
  - www.acuitybrandslighting.com
- **Eaton Residential & Wiring Devices Division**
  - www.coopercontrol.com
- **ENCELIUM by OSRAM**
  - www.osram-americas.com
- **GE Current, a Daintree company**
  - www.currentbyge.com
- **Holophane Company an Acuity Brands Company**
  - www.holophane.com
- **Hubbell Control Solutions**
  - www.hubbell-automation.com
- **Hubbell Incorporated**
  - www.hubbell.com
- **Hubbell Lighting, Inc.**
  - www.hubbelllighting.com
- **Juno Lighting Group an Acuity Brands Company**
  - www.junolightinggroup.com
- **Leviton Manufacturing Company, Inc.**
  - www.leviton.com
- **Lithonia Lighting, an Acuity Brands Company**
  - www.lithonia.com
- **Lutron Electronics Company, Inc.**
  - www.lutron.com
- **Pass & Seymour by Legrand**
  - www.passandseymour.com
- **RAB Lighting**
  - www.rabweb.com
- **Schneider Electric**
  - www.schneider-electric.us
- **Sensor Switch, an Acuity Brands Company**
  - www.sensorswitch.com
- **Signify**
  - www.signify.com
- **Universal Lighting Technologies**
  - www.unvl.com
- **WattStopper**
  - www.wattstopper.com

### Outdoor Lighting
- **ABB Installation Products, Inc.**
  - www.tnb.com
- **Acuity Brands, Inc.**
  - www.acuitybrandslighting.com
- **Architectural Area Lighting**
  - www.aal.net
- **Atlas Lighting Products, Inc.**
  - www.atlaslightingproducts.com
- **Cree Lighting**
  - www.cree.com
- **Dialight**
  - www.dialight.com
- **Eaton Lighting Solutions**
  - www.cooperlighting.com
- **Emerson Automation Solutions**
  - www.egse.com
- **EYE Lighting International of North America, Inc.**
  - www.eyeinternational.com
- **Holophane Company an Acuity Brands Company**
  - www.holophane.com
- **Hubbell Lighting, Inc.**
  - www.hubbelllighting.com
- **Intense Lighting A Leviton Company**
  - www.intenselighting.com
- **Juno Lighting Group an Acuity Brands Company**
  - www.junolightinggroup.com
- **KIM Lighting**
  - www.kimlighting.com
- **Lithonia Lighting, an Acuity Brands Company**
  - www.lithonia.com
- **MaxLite**
  - www.maxlite.com
- **Prescolite**
  - www.prescolite.com
- **Progress Lighting**
  - progresslighting.com
- **RAB Lighting**
  - www.rabweb.com

### Remote Illumination Lighting
- **Satco Products, Inc.**
  - www.satco.com
- **Signify**
  - www.signify.com
- **Westgate MFG Inc.**
  - www.westgatemfg.com

### Roadway Lighting
- **Acuity Brands, Inc.**
  - www.acuitybrandslighting.com
- **Architectural Area Lighting**
  - www.aal.net
- **Atlas Lighting Products, Inc.**
  - www.atlaslightingproducts.com
- **Cree Lighting**
  - www.cree.com
- **Dialight**
  - www.dialight.com
- **Eaton Lighting Solutions**
  - www.cooperlighting.com
- **EYE Lighting International of North America, Inc.**
  - www.eyeinternational.com
- **Holophane Company an Acuity Brands Company**
  - www.holophane.com
- **Hubbell Lighting, Inc.**
  - www.hubbelllighting.com
- **KIM Lighting**
  - www.kimlighting.com
- **Lithonia Lighting, an Acuity Brands Company**
  - www.lithonia.com
- **RAB Lighting**
  - www.rabweb.com

### Specialty Lighting
- **ABB Installation Products, Inc.**
  - www.tnb.com
- **Acuity Brands, Inc.**
  - www.acuitybrandslighting.com
Architectural Area Lighting
www.aal.net

Dual-Lite
www.dual-lite.com

Eaton Lighting Solutions
www.cooperlighting.com

Emerson Automation Solutions
www.egseg.com

Holophane Company an Acuity Brands Company
www.holophane.com

Hubbell Lighting, Inc.
www.hubbelllighting.com

Juno Lighting Group an Acuity Brands Company
www.junolightinggroup.com

KIM Lighting
www.kimlighting.com

LEDVANCE LLC
www.ledvance.com

Lithonia Lighting, an Acuity Brands Company
www.lithonia.com

Prescolite
www.prescolite.com

RAB Lighting
www.rabweb.com

Signify
www.signify.com

Low Voltage Distribution Equipment

ABB Inc.
www.abb.com

Boltswitch, Inc.
www.boltswitch.com

Construction Innovations, LLC
www.constructioninnovations.com

Durham Company
www.durhamcompany.com

Eaton
www.eaton.com/electricalusa

Eaton’s Bussmann Division
www.cooperbussmann.com

Hubbell Incorporated
www.hubbell.com

Hubbell Power Systems
www.hubbellpowersystems.com

Hubbell Wiring Device-Kellems
www.hubbell-wiring.com

Legrand, North America
www.legrand.us

Leviton Manufacturing Company, Inc.
www.leviton.com

Mersen USA Newburyport-MA, LLC
ep-us.mersen.com

Milbank Manufacturing Company
www.milbankworks.com

Post Glover Resistors, Inc.
www.postglover.com

Reliance Controls Corporation
www.reliancecontrols.com

Rockwell Automation, Inc.
www.rockwellautomation.com

Schneider Electric
www.schneider-electric.us

Siemens Industry, Inc.
www.usa.siemens.com/industry

Universal Electric Corporation
www.uecorp.com

Z-Power & Distribution
zpoweranddistribution.com

Low Voltage Surge Protective Devices

ABB Installation Products, Inc.
www.tnb.com

ASCO Power Technologies
www.ascopower.com

CITEL Inc.
www.citel.us

Cooper Power Systems by Eaton
www.cooperpower.com

Cooper Wiring Devices by Eaton
www.cooperwiringdevices.com

Eaton
www.eaton.com/electricalusa

Emerson Automation Solutions
www.egseg.com

Hubbell Power Systems
www.hubbellpowersystems.com

Hubbell Wiring Device-Kellems
www.hubbell-wiring.com

Leviton Manufacturing Company, Inc.
www.leviton.com

Mersen USA Newburyport-MA, LLC
ep-us.mersen.com

MVC-Maxivolt
www.maxivolt.com

Pass & Seymour by Legrand
www.passandseymour.com

nVent ERICO
www.erico.com

Phoenix Contact
www.phoenixcontact.com/usa_home

Raycap, Inc.
www.rayvoss.com

Schneider Electric
www.schneider-electric.us

Space Age Electronics, Inc.
www.1sae.com

SolaHD
www.emerson.com/en-us/automation/solahd

SSI An ILSCO Company
www.surgesuppression.com

Technology Research, LLC, a Southwire company
www.trci.net

Wiremold Cable Management Products by Legrand
www.wiremold.com

Medical Imaging & Technology

Acertara Acoustic Laboratories
www.acertaralabs.com

Advanced Accelerator Applications, USA
www.adacap.com
<table>
<thead>
<tr>
<th>Products &amp; Manufacturers: Motor and Generator</th>
</tr>
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<tbody>
<tr>
<td>Agfa HealthCare</td>
</tr>
<tr>
<td><a href="http://www.agfahealthcare.com">www.agfahealthcare.com</a></td>
</tr>
<tr>
<td>Bayer HealthCare, LLC.</td>
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<tr>
<td><a href="http://www.radiologysolutions.bayer.com">www.radiologysolutions.bayer.com</a></td>
</tr>
<tr>
<td>Blue Earth Diagnostics</td>
</tr>
<tr>
<td><a href="http://www.blueearthdiagnostics.com">www.blueearthdiagnostics.com</a></td>
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<tr>
<td>Bracco Diagnostics, Inc.</td>
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<tr>
<td><a href="http://www.bracco.com">www.bracco.com</a></td>
</tr>
<tr>
<td>Canon Healthcare Solutions</td>
</tr>
<tr>
<td><a href="http://www.usa.canon.com/cusa/healthcare">www.usa.canon.com/cusa/healthcare</a></td>
</tr>
<tr>
<td>Canon Medical Systems USA, Inc.</td>
</tr>
<tr>
<td>us.medical.canon</td>
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<tr>
<td>Cardinal Health</td>
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<tr>
<td><a href="http://www.cardinalhealth.com">www.cardinalhealth.com</a></td>
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<tr>
<td>Cerveau Technologies Inc.</td>
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<tr>
<td>cerevautechnologies.com</td>
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<tr>
<td>Change Healthcare</td>
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<tr>
<td><a href="http://www.mckesson.com">www.mckesson.com</a></td>
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<td>Curium</td>
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<td><a href="http://www.curiumpharma.com">www.curiumpharma.com</a></td>
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<td>Digirad</td>
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<td><a href="http://www.digirad.com">www.digirad.com</a></td>
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<td>Dilon Technologies, Inc.</td>
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<td><a href="http://www.dilon.com">www.dilon.com</a></td>
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<td>EIZO, Inc.</td>
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<td><a href="http://www.eizo.com/global/solutions/medical">www.eizo.com/global/solutions/medical</a></td>
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<td>Eli Lilly &amp; Company</td>
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<td><a href="http://www.lilly.com">www.lilly.com</a></td>
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<td>EOS Imaging</td>
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<td><a href="http://www.eos-imaging.com">www.eos-imaging.com</a></td>
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<tr>
<td>Esaote North America</td>
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<td><a href="http://www.esaoteusa.com">www.esaoteusa.com</a></td>
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<tr>
<td>eV Products, Inc., dba Kromek</td>
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<tr>
<td><a href="http://www.kromek.com">www.kromek.com</a></td>
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<tr>
<td>FUJIFILM Medical Systems U.S.A., Inc.</td>
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<tr>
<td><a href="http://www.fujifilm.com/products/medical/">www.fujifilm.com/products/medical/</a></td>
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<td>FUJIFILM Sonosite, Inc.</td>
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<td><a href="http://www.sonosite.com">www.sonosite.com</a></td>
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<tr>
<td>GE Healthcare</td>
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<tr>
<td>www3.gehealthcare.com</td>
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<td>Hitachi Healthcare Americas</td>
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<td><a href="http://www.hitachimed.com">www.hitachimed.com</a></td>
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<td>Hologic, Inc.</td>
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<td><a href="http://www.hologic.com">www.hologic.com</a></td>
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<td>iCAD, Inc.</td>
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<td><a href="http://www.icadmed.com">www.icadmed.com</a></td>
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<td>Invivo Corporation</td>
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<td><a href="http://www.invivocorp.com">www.invivocorp.com</a></td>
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<td>Imagen</td>
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<td>imagen.ai</td>
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<td>Imalogix</td>
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<td><a href="http://www.imalogix.com">www.imalogix.com</a></td>
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<td>Ionetix Corporation</td>
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<td><a href="http://www.ionetix.com">www.ionetix.com</a></td>
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<tr>
<td>Konica Minolta Medical Imaging USA Inc.</td>
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<td><a href="http://www.konicaminolta.com/medicalusa">www.konicaminolta.com/medicalusa</a></td>
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<tr>
<td>Laitek Inc.</td>
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<tr>
<td><a href="http://www.laitek.com">www.laitek.com</a></td>
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<tr>
<td>Lantheus Medical Imaging, Inc.</td>
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<tr>
<td><a href="http://www.lantheus.com">www.lantheus.com</a></td>
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<tr>
<td>Liebel-Flarsheim a wholly owned subsidiary of Guerbet Group</td>
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<td><a href="http://www.guerbet.com/en">www.guerbet.com/en</a></td>
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<tr>
<td>Life Molecular Imaging</td>
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<tr>
<td>piramal.com/imaging/</td>
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<td>lifeIMAGE</td>
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<td><a href="http://www.lifeimage.com">www.lifeimage.com</a></td>
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<td>MEDIAN Technologies</td>
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<td><a href="http://www.mediantechnologies.com">www.mediantechnologies.com</a></td>
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<td>MedTrace Pharma, Inc.</td>
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<tr>
<td>medtrace.dk</td>
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<td>Medtronic, Inc.</td>
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<tr>
<td><a href="http://www.medtronic.com">www.medtronic.com</a></td>
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<tr>
<td>Modus Medical Devices Inc.</td>
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<td>modusqa.com</td>
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<tr>
<td>NeuroLogica, a subsidiary of Samsung Electronics</td>
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<td><a href="http://www.neurologica.com">www.neurologica.com</a></td>
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<tr>
<td>Neusoft Medical Systems, USA, Inc.</td>
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<td><a href="http://www.neusoft.com">www.neusoft.com</a></td>
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<tr>
<td>Numa, Inc.</td>
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<td><a href="http://www.numa-inc.com">www.numa-inc.com</a></td>
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<td>PACSHealth, LLC</td>
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<td><a href="http://www.pacshealth.com">www.pacshealth.com</a></td>
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<tr>
<td>Philips</td>
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<td><a href="http://www.usa.philips.com/healthcare">www.usa.philips.com/healthcare</a></td>
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<tr>
<td>PKG Inc.</td>
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<td><a href="http://www.pkguis.com">www.pkguis.com</a></td>
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<tr>
<td>Planmed</td>
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<td><a href="http://www.planmed.com">www.planmed.com</a></td>
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<td>Samsung Medison</td>
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<td><a href="http://www.samsungmedison.com">www.samsungmedison.com</a></td>
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<tr>
<td>Shimadzu Medical Systems USA, a part of Shimadzu Corporation</td>
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<tr>
<td><a href="http://www.shimadzu.com/med">www.shimadzu.com/med</a></td>
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<tr>
<td>Siemens Healthineers</td>
</tr>
<tr>
<td>usa.healthcare.siemens.com</td>
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<tr>
<td>United Imaging Healthcare</td>
</tr>
<tr>
<td><a href="http://www.united-imaging.com">www.united-imaging.com</a></td>
</tr>
<tr>
<td>Varex Imaging</td>
</tr>
<tr>
<td><a href="http://www.vareximaging.com">www.vareximaging.com</a></td>
</tr>
<tr>
<td>VISUS Health IT GmbH</td>
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<tr>
<td><a href="http://www.visus.com">www.visus.com</a></td>
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<tr>
<td>Volpara Solutions Limited</td>
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<tr>
<td>volparasolutions.com</td>
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<tr>
<td>Xoran Technologies, LLC</td>
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<tr>
<td><a href="http://www.xorantech.com">www.xorantech.com</a></td>
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<tr>
<td>Ziehm Imaging, Inc.</td>
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<td><a href="http://www.ziehm.com">www.ziehm.com</a></td>
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</tbody>
</table>

**Motor and Generator**

<p>| ABB Motors and Mechanical Inc.               |
| new.abb.com/motors-generators                |
| Bison Gear &amp; Engineering Corporation        |
| ww.bisongear.com                             |
| Bluffton Motor Works WEG Group               |
| <a href="http://www.blufftonmotorworks.com">www.blufftonmotorworks.com</a>                   |
| Brook Crompton Americas                      |
| <a href="http://www.brookcrompton.com">www.brookcrompton.com</a>                        |
| Cummins, Inc.                                |
| <a href="http://www.cummins.com">www.cummins.com</a>                              |
| GE Industrial Motors, a Wolong Company       |
| <a href="http://www.gemotorswolong.com">www.gemotorswolong.com</a>                       |</p>
<table>
<thead>
<tr>
<th><strong>Products &amp; Manufacturers: Power Equipment</strong></th>
</tr>
</thead>
</table>

### Metallic Boxes and Covers

- **ABB Installation Products, Inc.**
  - www.tnb.com
- **Allied Moulded Products, Inc.**
  - www.alliedmoulded.com
- **Arlington Industries, Inc.**
  - www.aifittings.com
- **Eaton’s Crouse-Hinds Business**
  - www.crouse-hinds.com
- **Emerson Automation Solutions**
  - www.egseg.com
- **HOTWIRE LLC**
  - tryhotwire.com
- **Hubbell Incorporated**
  - www.hubbell.com
- **Hubbell Wiring Device-Kellems**
  - www.hubbell-wiring.com
- **IPEX USA, LLC**
  - www.ipexna.com/usa
- **Interpower Corporation**
  - www.interpower.com
- **Killark, a division of Hubbell, Inc.**
  - www.hubbell-killark.com
- **Leviton Manufacturing Company, Inc.**
  - www.leviton.com
- **MELTRIC Corporation**
  - www.meltric.com
- **Pass & Seymour by Legrand**
  - www.passandseymour.com

### Nonmetallic Boxes and Covers

- **ABB Installation Products, Inc.**
  - www.tnb.com
- **Allied Moulded Products, Inc.**
  - www.alliedmoulded.com
- **Arlington Industries, Inc.**
  - www.aifittings.com
- **Eaton’s Crouse-Hinds Business**
  - www.crouse-hinds.com
- **Emerson Automation Solutions**
  - www.egseg.com
- **HOTWIRE LLC**
  - tryhotwire.com
- **Hubbell Incorporated**
  - www.hubbell.com
- **Hubbell Wiring Device-Kellems**
  - www.hubbell-wiring.com
- **IPEX USA, LLC**
  - www.ipexna.com/usa
- **Interpower Corporation**
  - www.interpower.com
- **Killark, a division of Hubbell, Inc.**
  - www.hubbell-killark.com
- **Leviton Manufacturing Company, Inc.**
  - www.leviton.com
- **MELTRIC Corporation**
  - www.meltric.com
- **Pass & Seymour by Legrand**
  - www.passandseymour.com

### Electrical Connector

- **3M**
  - www.3m.com/electrical
- **ABB Installation Products, Inc.**
  - www.tnb.com
- **ASK Products, Inc.**
  - www.ask-power.com
- **BURNDY, LLC**
  - www.burndy.com
- **Connector Manufacturing Company, a subsidiary of Burndy, LLC**
  - www.cmclugs.com
Eaton’s Power Systems  
www.cooperpower.com

Galvan Industries, Inc.  
www.galvanelectrical.com

Hubbell Power Systems  
www.hubbellpowersystems.com

ILSCO  
www.ilSCO.com

MELTRIC Corporation  
www.meltric.com

Panduit Corporation  
www.panduit.com

nVent ERICO  
www.erico.com

Polaris Sales Co. Inc.  
polarisconnectors.com

South Atlantic, LLC  
www.southatlanticllc.com

TE Connectivity  
www.te.com

**Electrical Measuring Equipment**

Aclara Meters  
www.aclara.com

Brooks Utility Products  
www.brooksutility.com

Durham Company  
www.durhamcompany.com

Eaton  
www.eaton.com

Honeywell Smart Energy  
www.elsterelectricity.com

Hubbell Power Systems  
www.hubbell.com/hubbellpowersystems

Itron, Inc.  
www.itron.com

Landis+Gyr  
www.landisgyr.com

Milbank Manufacturing Company  
www.milbankworks.com

Radian Research, Inc.  
www.radianresearch.com

Schneider Electric  
www.schneider-electric.com

Sensus, A Xylem Brand  
sensus.com

Siemens Industry, Inc.  
www.usa.siemens.com/industry

**High Voltage Insulator**

Hendrix Molded Products  
www.maronutility.com/MoldedProducts.aspx

Hubbell Power Systems  
www.hubbellpowersystems.com

K-Line Insulators, Inc.  
www.k-line.net

Lapp Insulators, LLC  
www.lappinsulator.com

NGK-Locke Polymer Insulators, Inc.  
www.ngk-polymer.com

Preformed Line Products  
www.preformed.com

Raychem, a product group of TE Connectivity  
raychem.te.com

Sediver USA, Inc.  
www.sediver.com

PPC USA, Inc.  
www.ppcinsulators.com

Victor Insulators, Inc.  
www.victorinsulators.com

**Surge Arrester**

ABB Inc.  
www.abb.com

Eaton Residential & Wiring Devices Division  
www.cooperpower.com

Hubbell Power Systems  
www.hubbellpowersystems.com

Siemens Industry, Inc.  
www.usa.siemens.com/Industry

TE Connectivity  
www.te.com

**Raceways**

**Polymer Guards**

ABB Installation Products, Inc.  
www.tnb.abb.com

Hubbell Incorporated  
www.hubbell.com

IPEX USA, LLC  
www.ipexamericA.com

**Polymer Raceway Products**

ABB Installation Products, Inc.  
www.tnb.com

AFC Cable Systems, Inc., a part of Atkore International  
www.afcweb.com

Allied Tube & Conduit, a part of Atkore International  
www.allieddeg.us

Anamet Electrical, Inc.  
www.anamet.com

Champion Fiberglass, Inc.  
www.championfiberglass.com

Electri-Flex Company  
www.electri-flex.com

FRE Composites  
www.frecomposites.com

Hubbell Incorporated  
www.hubbell.com

IPEX USA, LLC  
www.ipexamericA.com

Panduit Corporation  
www.panduit.com

Phoenix Contact  
www.phoenixcontact.com/usa_home

Southern Pipe, Inc.  
www.southern-pipe.com

Southwire Company  
www.southwire.com

Underground Devices, Inc.  
www.ud Devices.com

United Fiberglass of America, Inc.  
www.unitedfiberglass.com
PRODUCTS & MANUFACTURERS: Switches

Wiremold Cable Management Products by Legrand
www.wiremold.com

Thermoplastic Raceway (PVC, Polyethylene, Polyolefin)
ABB Installation Products, Inc.
www.tnb.com

AFC Cable Systems, Inc., a part of Atkore International
www.afcweb.com

Hubbell Incorporated
www.hubbell.com

IPEX USA, LLC
www.ipexamerica.com

Panduit Corporation
www.panduit.com

Southern Pipe, Inc.
www.southern-pipe.com

Underground Devices, Inc.
www.udevices.com

Wiremold Cable Management Products by Legrand
www.wiremold.com

Thermoset Raceway (Fiberglass)
Champion Fiberglass, Inc.
www.championfiberglass.com

FRE Composites
www.frecomposites.com

United Fiberglass of America, Inc.
www.unitedfiberglass.com

Receptacles

ABB Inc.

Bryant Electric
www.bryant-electric.com

Eaton Residential & Wiring Devices Division
www.cooperwiringdevices.com

Enerlites Inc.
www.enerlites.com

Hubbell Wiring Device-Kellems
www.hubbell-wiring.com

Leviton Manufacturing Company, Inc.
www.leviton.com

Lutron Electronics Company, Inc.
www.lutron.com

Pass & Seymour by Legrand
www.passandseymour.com

Sky Technologies
www.safetyquicklight.com

Wiremold Cable Management Products by Legrand
www.wiremold.com

Residential & Commercial Controls

APCOM, Inc.
www.apcom-inc.com

Braeburn Systems, LLC
www.braeburnonline.com

Johnson Controls
www.tycosimplexgrinnell.com

Google Nest
www.nest.com

Resideo Technologies, Inc.
www.resideo.com

Security Imaging and Communications

AS&E
www.as-e.com

OSI Systems, Inc.
www.osi-systems.com

Rapiscan Systems
www.rapiscansystems.com

TeleSecurity Sciences, Inc.
www.telesecuritysciences.com

Steel Conduit and Electrical Metallic Tubing

ABB Installation Products, Inc.
www.tnb.com

Allied Tube & Conduit, a part of Atkore International
www.alliedeg.us

Republic Conduit, a Nucor company
www.republicconduit.com

Robroy Industries, Inc.
www.robroy.com

Western Tube & Conduit Corporation
www.westerntube.com

Wheatland Tube Company
www.wheatland.com

Switches

Bryant Electric, a division of Hubbell, Inc.
www.bryant-electric.com

Cooper Wiring Devices by Eaton
www.cooperwiringdevices.com

Eaton
www.eaton.com/electricalusa

Enerlites Inc.
www.enerlites.com

Hubbell Wiegmann, a subsidiary of Hubbell Incorporated
www.hubbell-wiegmann.com

Hubbell Wiring Device-Kellems
www.hubbell-wiring.com

Leviton Manufacturing Company, Inc.
www.leviton.com

Lutron Electronics Company, Inc.
www.lutron.com

MELTRIC Corporation
www.meltric.com

Pass & Seymour by Legrand
www.passandseymour.com

Rittal Corporation
www.rittal.us

WattStopper
www.wattstopper.com
### Switchgear

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<th>Company Name</th>
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<tr>
<td>ABB Inc.</td>
<td><a href="http://www.abb.com">www.abb.com</a></td>
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<td>ABB Installation Products, Inc.</td>
<td><a href="http://www.tnb.com">www.tnb.com</a></td>
</tr>
<tr>
<td>Eaton Residential &amp; Wiring Devices Division</td>
<td><a href="http://www.cooperpower.com">www.cooperpower.com</a></td>
</tr>
<tr>
<td>Eaton</td>
<td><a href="http://www.eaton.com/electricalusa">www.eaton.com/electricalusa</a></td>
</tr>
<tr>
<td>Federal Pacific</td>
<td><a href="http://www.federalpacific.com">www.federalpacific.com</a></td>
</tr>
<tr>
<td>G&amp;W Electric, Inc.</td>
<td><a href="http://www.gwelec.com">www.gwelec.com</a></td>
</tr>
<tr>
<td>GE Grid Solutions</td>
<td><a href="http://www.gegridsolutions.com">www.gegridsolutions.com</a></td>
</tr>
<tr>
<td>Hitachi T&amp;D Solutions, Inc.</td>
<td>hvbi.hitachi.us</td>
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<tr>
<td>Hubbell Power Systems</td>
<td><a href="http://www.hubbellpowersystems.com">www.hubbellpowersystems.com</a></td>
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<tr>
<td>Mersen Electrical Power</td>
<td>ep-us.mersen.com</td>
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<td>Mitsubishi Electric Power Products, Inc.</td>
<td><a href="http://www.meppi.com">www.meppi.com</a></td>
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<tr>
<td>ROMAC PCI</td>
<td><a href="http://www.powercontrolsinc.com">www.powercontrolsinc.com</a></td>
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<tr>
<td>S&amp;C Electric Company</td>
<td><a href="http://www.sandc.com">www.sandc.com</a></td>
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<tr>
<td>Schneider Electric</td>
<td><a href="http://www.schneider-electric.us">www.schneider-electric.us</a></td>
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<tr>
<td>Siemens Industry, Inc.</td>
<td><a href="http://www.usa.siemens.com/industry">www.usa.siemens.com/industry</a></td>
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<tr>
<td>Toshiba International Corporation</td>
<td><a href="http://www.toshiba.com/ind">www.toshiba.com/ind</a></td>
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<td>Z-Power &amp; Distribution</td>
<td>zpoweranddistribution.com</td>
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### Transformers

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<td>ABB Inc.</td>
<td><a href="http://www.abb.com">www.abb.com</a></td>
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<td>Eaton’s Power Systems</td>
<td><a href="http://www.cooperpower.com">www.cooperpower.com</a></td>
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<tr>
<td>Eaton</td>
<td><a href="http://www.eaton.com/electricalusa">www.eaton.com/electricalusa</a></td>
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<tr>
<td>Emerson</td>
<td><a href="http://www.emersonelectric.com">www.emersonelectric.com</a></td>
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<tr>
<td>Federal Pacific</td>
<td><a href="http://www.federalpacific.com">www.federalpacific.com</a></td>
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<tr>
<td>Hammond Power Solutions, Inc.</td>
<td><a href="http://www.hammondpowersolutions.com">www.hammondpowersolutions.com</a></td>
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<tr>
<td>Hitachi T&amp;D Solutions, Inc.</td>
<td><a href="http://www.hitachi-tds.com">www.hitachi-tds.com</a></td>
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<td>Hubbell Acme</td>
<td><a href="http://www.acmetransformer.com/en">www.acmetransformer.com/en</a></td>
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<tr>
<td>Jinpan International USA Ltd.</td>
<td><a href="http://www.jstusa.net">www.jstusa.net</a></td>
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<tr>
<td>MGM Transformer Company</td>
<td><a href="http://www.mgm-transformer.com">www.mgm-transformer.com</a></td>
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<tr>
<td>Milbank Manufacturing Company</td>
<td>milbankworks.com</td>
</tr>
<tr>
<td>Mitsubishi Electric Power Products, Inc.</td>
<td><a href="http://www.meppi.com">www.meppi.com</a></td>
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<tr>
<td>PDI</td>
<td><a href="http://www.pdicorp.com">www.pdicorp.com</a></td>
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<td>Schneider Electric</td>
<td><a href="http://www.schneider-electric.us">www.schneider-electric.us</a></td>
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<tr>
<td>Siemens Industry, Inc.</td>
<td>new.siemens.com</td>
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<tr>
<td>VanTran Industries</td>
<td><a href="http://www.vantran.com">www.vantran.com</a></td>
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<td>360 Network Solutions, LLC</td>
<td><a href="http://www.360ns.net">www.360ns.net</a></td>
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<tr>
<td>Applied Information, Inc.</td>
<td><a href="http://www.appinfoinc.com">www.appinfoinc.com</a></td>
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<tr>
<td>Daktronics</td>
<td><a href="http://www.daktronics.com/transportation">www.daktronics.com/transportation</a></td>
</tr>
<tr>
<td>Eberle Design, Inc.</td>
<td><a href="http://www.editraffic.com">www.editraffic.com</a></td>
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<tr>
<td>Horizon Signal Technologies</td>
<td><a href="http://www.horizonsignal.com">www.horizonsignal.com</a></td>
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<tr>
<td>Intellitec, Inc.</td>
<td><a href="http://www.intellitec.com">www.intellitec.com</a></td>
</tr>
<tr>
<td>John Thomas, Inc.</td>
<td><a href="http://www.crashcushions.com">www.crashcushions.com</a></td>
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<tr>
<td>McCain Inc.</td>
<td><a href="http://www.mccain-inc.com">www.mccain-inc.com</a></td>
</tr>
<tr>
<td>Parsons</td>
<td>delcantechnologies.com</td>
</tr>
<tr>
<td>Qualcomm</td>
<td><a href="http://www.qualcomm.com">www.qualcomm.com</a></td>
</tr>
<tr>
<td>Sunrise SESA Technologies, Inc.</td>
<td><a href="http://www.sesamerica.com">www.sesamerica.com</a></td>
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<td>Siemens Industry, Inc.</td>
<td><a href="http://www.usa.siemens.com/industry">www.usa.siemens.com/industry</a></td>
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<tr>
<td>Skyline Products</td>
<td><a href="http://www.skylineproducts.com">www.skylineproducts.com</a></td>
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<tr>
<td>Temple, Inc.</td>
<td>temple-inc.com</td>
</tr>
<tr>
<td>Ver-Mac</td>
<td><a href="http://www.ver-mac.com">www.ver-mac.com</a></td>
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<td><a href="http://www.abb.com">www.abb.com</a></td>
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<td>Ametek Solidstate Controls, Inc.</td>
<td><a href="http://www.solidstatecontrolsinc.com">www.solidstatecontrolsinc.com</a></td>
</tr>
<tr>
<td>APC by Schneider Electric</td>
<td><a href="http://www.apc.com">www.apc.com</a></td>
</tr>
<tr>
<td>Delta Products Corporation</td>
<td><a href="http://www.delta-americas.com">www.delta-americas.com</a></td>
</tr>
<tr>
<td>Emerson Automation Solutions</td>
<td><a href="http://www.egseg.com">www.egseg.com</a></td>
</tr>
<tr>
<td>Toshiba International Corporation</td>
<td><a href="http://www.toshiba.com/ind">www.toshiba.com/ind</a></td>
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</tbody>
</table>
**PRODICTS & MANUFACTURERS:** Wire & Cable

**Three-Phase UPS**

- VERTIV Liebert
  - www.liebert.com
- ABB Inc.
  - www.abb.com
- Ametek Solidstate Controls, Inc.
  - www.solidstatecontrolsinc.com
- APC by Schneider Electric
  - www.apc.com
- Toshiba International Corporation
  - www.toshiba.com/ind
- VERTIV Liebert
  - www.liebert.com

**Wire & Cable**

**Building Wire and Cable**

- AFC Cable Systems, Inc., a part of Atkore International
  - www.afcweb.com
- Anamet Electrical, Inc.
  - www.anamet.sealtite.com
- Cable USA LLC
  - cableusallc.com
- Cerro Wire, LLC
  - www.cerrowire.com
- Colonial Wire & Cable Co., Inc.
  - colonialwire.com
- Copperweld Bi-Metallics, LLC
  - www.copperweld.com
- Electri-Flex Company
  - www.electriflex.com
- Encore Wire Corporation
  - www.encorewire.com
- International Metal Hose Company
  - www.metalhose.com
- Nexans
  - www.nexans.ca
- Okonite Company, The
  - www.okonite.com
- Service Wire Company
  - www.servicewire.com
- Southwire Company
  - www.southwire.com
- United Copper Industries
  - www.unitedcopper.com
- Viakable, S.A. de C.V.
  - www.viakable.com

**Flexible Cords**

- Bryant Electric, a division of Hubbell, Inc.
  - www.bryant-electric.com
- Coleman Cable, LLC
  - www.coleman cable.com
- Electri-Cord Manufacturing Company
  - www.electri-cord.com
- Hubbell Wiring Device-Kellem
  - www.hubbell-wiring.com
- Interpower Corporation
  - www.interpower.com
- Nexans
  - www.nexans.ca
- SEA Wire and Cable, Inc.
  - www.sea-wire.com
- Southwire Company
  - www.southwire.com

**High Performance Wire and Cable**

- AFC Cable Systems, Inc., a part of Atkore International
  - www.afcweb.com
- Cable USA, LLC
  - www.cableusa.cc
- Champlain Cable Corporation
  - www.champcable.com
- Coleman Cable, LLC
  - www.coleman cable.com
- Comtran Cable, LLC
  - comtrancorp.com
- Freeport-McMoRan
  - www.fcx.com
- Marine Tech Wire and Cable, Inc.
  - www.marinetechnowire.com
- Monroe Cable Company, Inc., The
  - www.mono ropecableusa.com
- Nexans
  - www.nexans.ca
- Okonite Company, The
  - www.okonite.com
- Quirk Wire Company, Inc.
  - www.quirkwire.com
- Radix Wire
  - www.radix-wire.com
- Raychem, a product group of TE Connectivity
  - raychem.te.com
- RSCC Wire and Cable
  - www.r-scc.com
- Rubadue Wire Co., Inc.
  - www.rubadue.com
- SEA Wire and Cable, Inc.
  - www.sea-wire.com
- Southwire Company
  - www.southwire.com
- Virginia Insulated Products, Inc.
  - www.vipwire.com
- WireMasters, Inc.
  - www.wiremasters.net

**Magnet Wire**

- CONDUMEX S.A. DE C.V.
  - www.condumex.com
- Elektrisola, Inc.
  - www.elektrisola-usa.com
- Magnekon S.A. de C.V., a Viakable company
  - www.magnenkon.com
- MWS Wire Industries
  - www.mwswire.com
- Rea Magnet Wire Company, Inc.
  - www.reawire.com
- Rubadue Wire Co., Inc.
  - www.rubadue.com
- SEA Wire and Cable, Inc.
  - www.sea-wire.com
- Superior Essex, Inc.
  - www.superioressex.com
- Virginia Insulated Products, Inc.
  - www.vipwire.com
- Zeus Industrial Products, Inc.
  - www.zeusinc.com

www.nema.org
## Products & Manufacturers: Wiring Devices

### Power and Control Cable
- **AFC Cable Systems, Inc., a part of Atkore International**
  - [www.afcweb.com](http://www.afcweb.com)
- **CME Wire & Cable**
  - [www.cmewire.com](http://www.cmewire.com)
- **Electri-Cord Manufacturing Company**
  - [www.electri-cord.com](http://www.electri-cord.com)
- **Freeport-McMoRan**
  - [www.fcx.com](http://www.fcx.com)
- **Marmon Utility LLC**
  - [www.marmonutility.com](http://www.marmonutility.com)
- **Nexans**
  - [www.nexans.ca](http://www.nexans.ca)
- **Okonite Company, The**
  - [www.okonite.com](http://www.okonite.com)
- **Phoenix Contact**
  - [www.phoenixcontact.com/usa_home](http://www.phoenixcontact.com/usa_home)
- **RSCC Wire and Cable**
  - [www.r-scc.com](http://www.r-scc.com)
- **Rubadue Wire Co., Inc.**
  - [www.rubadue.com](http://www.rubadue.com)
- **SEA Wire and Cable, Inc.**
  - [www.sea-wire.com](http://www.sea-wire.com)

### Wiring Devices

- **Bryant Electric, a division of Hubbell, Inc.**
  - [www.bryant-electric.com](http://www.bryant-electric.com)
- **Eaton Residential & Wiring Devices Division**
  - [www.cooperwiringdevices.com](http://www.cooperwiringdevices.com)
- **Enerlites Inc.**
  - [www.enerlites.com](http://www.enerlites.com)
- **Hubbell Incorporated**
  - [www.hubbell.com](http://www.hubbell.com)
- **Hubbell Wiring Device-Kellems**
  - [www.hubbell-wiring.com](http://www.hubbell-wiring.com)
- **Interpower Corporation**
  - [www.interpower.com](http://www.interpower.com)
- **Legrand, North America**
  - [www.legrand.us](http://www.legrand.us)
- **Leviton Manufacturing Company, Inc.**
  - [www.leviton.com](http://www.leviton.com)
- **Lutron Electronics Company, Inc.**
  - [www.lutron.com](http://www.lutron.com)
- **Pass & Seymour by Legrand**
  - [www.passandseymour.com](http://www.passandseymour.com)
- **Schneider Electric**
  - [www.schneider-electric.us](http://www.schneider-electric.us)
- **Sky Technologies**
  - [www.safetyquicklight.com](http://www.safetyquicklight.com)
- **TayMac by Hubbell, Inc.**
  - [www.taymac.com](http://www.taymac.com)
- **TE Connectivity**
  - [www.te.com](http://www.te.com)
- **Technology Research, LLC, a Southwire company**
  - [www.trci.net](http://www.trci.net)
- **Titan3 Technology LLC**
  - [www.titan3.com](http://www.titan3.com)
- **WattStopper**
  - [www.wattstopper.com](http://www.wattstopper.com)
- **Wiremold Cable Management Products by Legrand**
  - [www.wiremold.com](http://www.wiremold.com)
ASSOCIATE MEMBERS

Industrial Supplier

Companies that supply raw, manufactured materials, components or products

Apple Inc.  
Cupertino CA  
www.apple.com

Arkema Inc.  
King Prussia PA  
www.arkema.com

Ascend Performance Materials  
Houston TX  
www.ascendmaterials.com

Budde Marketing Systems, Inc.  
Homer Glen IL  
www.buddemarketing.com

ELTEK International Laboratories  
Saint Charles MO  
www.elteklabs.com

INTEGRATED Engineering Software  
Winnipeg MB  
www.integratedsoft.com

Jor-Mac Company  
Lomira WI  
www.jor-mac.com

Kirk Key Interlock Company  
North Canton OH  
www.kirkkey.com

Meister International, LLC  
Ross OH  
www.meisterintl.com

Plusrite Electric (Jiangsu) Co., Ltd.  
Jiangsu China  
www.pluslight.com

PPG Industrial Coatings  
Pittsburgh PA  
corporate.ppg.com

Robertson Inc.  
Burlington ON  
www.robertsonscrew.com

Synaptronics  
Columbia MD  
www.synaptronics.com

Mission Controls & Automation  
www.mission-controls.com

MRO Supply  
www.mrosupply.com

Rexel Inc.  
Dallas TX  
www.rexelusa.com

Sy Kessler Sales Inc.  
Dallas TX  
www.sykessler.com

VantagePQ Solutions, LLC  
Wake Forest NC  
www.vantagepq.com

Association

Organizations that have an interest in NEMA-related issues

American Public Power Association  
Arlington VA  
www.publicpower.org

CABA  
Ottawa ON  
www.caba.org

IMSA  
Rockledge FL  
www.imsasafety.org

The Vinyl Institute  
Alexandria VA  
www.vinylinfo.org

Wholesale Trade

Companies that are authorized to distribute NEMA Member products

Batteries Plus Bulbs  
Hartland WI  
www.batteriesplus.com

Controls & Electric Motor Company Inc.  
Joplin MO  
www.cemcomo.com

Graybar Electric Company, Inc.  
Saint Louis MO  
www.graybar.com

Medical Outfitters, Inc.  
Miami FL  
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