

ELECTRICAL CONSTRUCTION EQUIPMENT DIRECTORY 2012

This Directory contains all Listings and Classifications in effect as of March 28, 2012 for product categories covered.

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ELECTRICAL CONSTRUCTION EQUIPMENT DIRECTORY

Table of Contents

Introduction

Installation and Use of Products Bearing the UL Mark	viii
Use of this Directory	viii
Look for the UL Mark	
Identification of UL Listed and Classified Products	ix
Identification of UL Listed Products	x
Identification of UL Listed Gas-Fired Products	x
Identification of UL Listed Environmental and Public Health (EPH) Products ...	xi
Identification of UL Classified Products	xi
Identification of UL Classified Environmental and Public Health (EPH) Products	xi
Identification of UL Listed Products that are Also Classified in Accordance with International or Regional Standards	xii
Identification of Products Classified in Accordance with International or Regional Standards Only	xii
Products Listed by Report	
Specifying UL Listed and Classified Products	

Electrical Equipment for Use in Ordinary Locations (AALZ)	xiii
---	------

Directory of Product Categories and Names of Companies Qualified to Use the UL Mark

Advertising Displays, Nonilluminated (AAVU)	1
Elevator and Escalator Systems, Subsystems, Components and Functions (AECO) .	1
Appliance Controls (ATNZ)	4
Appliance Outlet Centers (AUJZ)	12
Arc-detection and -mitigation Equipment (AVWD)	14
Arc-fault Circuit Interrupters (AVYI)	15
Architectural and Floating Fountains (AWEG)	19
Armored Cable (AWEZ)	19
Attachment Plugs (AXGV)	22
Boat Cable (BDFX)	29
Boxes, Enclosures, Handholes and Vaults, Underground, Utility Specification (BGHL)	31
Boxes, Junction and Pull (BGUZ)	32
Busways, Metal Enclosed, Over 600 Volts (CVZW)	38
Busways and Associated Fittings (CWFT)	39
Cabinets and Cutout Boxes (CYIV)	41
Cable Assemblies and Fittings for Industrial Control and Signal Distribution (CYJV)	49
Cable Trays (CYNW)	51
Cable Trays, Nonmetallic (CYOV)	55



Documents

Document Sharing Hub

Capacitors (CYWT)	56
Circuit Breakers (DHJR)	58
Circuit Breakers and Metal-clad Switchgear Over 600 Volts (DLAH)	80
Circuit Protectors (DLBX)	86
Class 2 and Communication Cable Management Systems (DLPV)	86
Cold Cathode Transformers and Power Supplies (DUEC)	87
Communication Cable Assemblies (DUNH)	88
Communications Cable (DUZX)	88
Communications Cable Verified in Accordance with National or International Specifications (DVBG)	138
Community Antenna Television Cable (DVCS)	144
Computer Interconnection Cable Assemblies (DVPJ)	150
Conductor Termination Compounds (DVYW)	154
Conduit and Fittings (DWFV)	155
Connectors, Special Purpose (ECIS)	189
Cord Sets and Power-supply Cords (ELBZ)	191
Cord Sets with Leakage-current Detection and Interruption (ELGN)	228
Crane and Hoist Electrification Systems (ELPX)	228
Crane Equipment Over 600 Volts (ELRK)	229
Current Taps and Adapters (EMDV)	230
Data Processing Cable (EMRB)	234
Electric Signs Verified for Energy Efficiency in Accordance with California Code of Regulations, Title 24, Part 6, Section 148 (ENVS)	237
Dielectric Mediums (EOUV)	239
Dimmers (EOVZ)	241
Earthquake-actuated Equipment (FFPC)	246
Earthquake-actuated Shutoff Systems (FFPH)	246
Electric Vehicle Systems (FFQM)	247
Electrical Metallic Tubing (FJMX)	252
Electrical Nonmetallic Tubing (FKHU)	258
Electric Discharge Lamp Control Equipment (FKOT)	259
Electrically-conductive Corrosion-resistant Compounds (FOIZ)	287
Elevator Equipment (FQKR)	288
Energy and Industrial Systems Certified for Functional Safety (FSPC)	295
Emergency Lighting and Power Equipment (FTBR)	298
Engine Generators (FTCA)	310
Energy Usage Monitoring Systems (FTRZ)	310
Engine Generators (FTSR)	312
Equipment Ground-fault Protective Devices (FTTE)	315
Exit Fixtures (FWBO)	315
Exit Sign Conversion Kits (FWCF)	319
Exit Fixture to Exit Light Conversions, Retrofit (FWCN)	319
Factory Automation Equipment (GPNY)	320
Fan-speed Controls (GQHG)	322
Fc Cable (GQKT)	323
Fire Alarm Cable (HNGV)	324
Luminaires and Fittings (HYXT)	333
Flat Conductor Cable, Type Fcc (IKKT)	587
Flat Conductor Cable Fittings (IKMW)	588
Flexible Metallic Tubing (ILJW)	588
Flexible Stage and Lighting Power Cable (ILPH)	589
Fuel Cell Equipment (IRGN)	590
Fuel Gas Booster Compressor Equipment (IUXX)	591



Fused Power-circuit Devices (IYSR)	592
Fuseholders (IYXV)	593
Fuses (JCQR)	599
Generators (JZGZ)	619
Ground-fault Circuit Interrupters (KCXS)	629
Ground-fault Sensing and Relaying Equipment (KDAX)	634
Grounding and Bonding Equipment (KDER)	635
Grounding and Bonding Equipment, Communication (KDSH)	646
Grounding Equipment, Neutral Grounding Devices, Over 600 Volts (KDZC)	648
Hoistway Cable (MSZR)	649
Industrial Control Equipment (NIMX)	650
Instrumentation Tray Cable (NYTT)	1021
Insulating Devices and Materials (NYYV)	1024
Irrigation Cable (OFFY)	1029
Lampholders (OIMZ)	1030
Lighting and Power Equipment, Auxiliary (OUST)	1055
Lightning Protection (OVGR)	1055
Surge-protective Devices Classified for Use in Specified Equipment (OWIW)	1057
Limited Combustible Cable (OWKZ)	1058
Low-voltage AC Power-switching Devices (PAPU)	1058
Management Equipment, Energy (PAZX)	1063
Marina and Boatyard Cable (PDYQ)	1077
Medium-voltage Power Cable (PITY)	1078
Medium-voltage Cable Classified in Accordance with UL 1072, with Metric Conductor Sizes (PIVW)	1080
Metal-clad Cable (PJAZ)	1081
Metal-clad Cable Connectors, Type MC (PJOX)	1084
Metal-clad Cable Classified in Accordance with UL 1569, with Metric Conductor Sizes (PJPI)	1086
Meter-mounting Equipment (PJSR)	1086
Mineral-insulated Metal-sheathed Cable (PPKV)	1091
Motor-generator Sets (PQYW)	1092
Motors, Inverter Duty (PRHJ)	1092
Mounting Posts and Pedestals for Distribution Equipment (PUPR)	1093
Multioutlet Assemblies (PVGT)	1094
Multi-point Interconnection Power Cable Assemblies for Industrial Machinery (PVVA)	1100
Neon Transformers and Power Supplies (PWIK)	1101
Network-powered Broadband Communications Cable (PWIP)	1102
Nonmetallic-sheathed Cable (PWVX)	1103
Nonmetallic Extensions (PXXT)	1107
Nonmetallic-sheathed Cable Interconnectors (QAAV)	1108
Optical Fiber Cable (QAYK)	1109
Optical Fiber/communications/signaling/coaxial Cable Raceway (QAZM)	1117
Optical Fiber/communications/signaling/coaxial Cable Outlet Boxes (QAZR)	1119
Cable Routing Assemblies (QBAA)	1120
Optical Fiber Branching Devices (QBEA)	1121
Optical Fiber Cable Assemblies and Connectors (QBFA)	1122
Outlet Boxes and Fittings (QBPZ)	1123
Outlet Circuit Testers (QCYU)	1182
Packaged Pumping Systems (QCZJ)	1183
Panelboards, Modular (QFOF)	1186
Passenger Boarding Bridges (QGLA)	1187



Distributed Generation Power Systems Equipment (QHWJ)	1187
Pin-and-sleeve-type Plugs, Receptacles and Cable Connectors (QLGD)	1233
Receptacle-plug Combinations, Pin-and-sleeve Type, Classified for Use in Specific Combinations (QLKH)	1237
Portable Power Cable (QPMU)	1237
Power and Control Tray Cable (QPOR)	1239
Power and Control Tray Cable Connectors (QPOZ)	1246
Power Converters/inverters and Power Converter/inverter Systems (QPPY)	1247
Power Distribution Blocks (QPQS)	1248
Power Distribution Centers for Communications Equipment (QPQY)	1249
Power Distribution Equipment, Portable (QPRW)	1252
Power-limited Circuit Cable (QPTZ)	1256
Power Outlets and Power Outlet Fittings (QPYV)	1278
Power Supplies (QQAQ)	1280
Nonmetallic Underground Conduit with Conductors (QQRK)	1333
Prefabricated Assemblies (QQRX)	1334
Commercial and Industrial Prefabricated Buildings and Units (QRXA)	1342
Press and Other Power-operated Machine Controls and Systems (QUEQ)	1344
Process Control Equipment, Electrical (QUYX)	1345
Electrical Quick-connect Terminals (RFWV)	1354
Raceway (RGKT)	1359
Receptacle Closures (RQYF)	1367
Receptacles (RTDV)	1368
Repackaged Electrical Construction Equipment (TEOZ)	1379
Robots and Robotic Equipment (TETZ)	1385
Sanitation, Food Service Equipment (TSQS)	1387
Semiconductor Manufacturing Equipment (TWKH)	1438
Service Cable (TXKT)	1439
Shipboard Cable, Marine (UBVZ)	1447
Shipboard Cable, Marine, Classified in Accordance with International Specifications (UBWK)	1455
Signs (UXYT)	1456
Surge-protective Devices (VZCA)	1533
Surface Vehicle Cable (VZSA)	1541
Swimming Pool and Spa Equipment (WABX)	1541
Switchboards (WEIR)	1556
Switches (WFXV)	1564
Switchgear Assemblies, Metal Enclosed, Low-voltage-power Circuit-breaker Type (WUTZ)	1602
Switchgear Over 600 Volts (WVDA)	1605
Automatic Electrical Controls for Household and Similar Use (XAAA)	1609
Temperature-indicating and -regulating Equipment (XAPX)	1611
Temperature-indicating and -regulating Equipment, Electrical (XATJ)	1619
Temporary-lighting Strings (XBRT)	1619
Relocatable Power Taps (XBYS)	1621
Termination Boxes (XCKT)	1627
Traffic Signal Cable Classified in Accordance with IMSA Specifications (XNTL)	1630
Trailing Cable Classified in Accordance with Din Publication Din Vde 0250 Part 813 (XNUA)	1631
Transformers (XNWX)	1631
Transit Application Equipment and Systems (XUPY)	1647
Underground Feeder and Branch Circuit Cable (YDUX)	1647
Uninterruptible Power-supply Equipment (YEDU)	1651

Unit Substations (YEFR)	1657
Unit Substations Over 600 Volts (YEFV)	1658
Wind Turbine Generating Systems (ZGAA)	1659
Wire (ZGZX)	1662
Wire Connectors (ZMKQ)	1795
Positioning Devices (ZODZ)	1821
Wire-pulling Compounds (ZOKZ)	1825
Wireway, Auxiliary Gutters and Associated Fittings (ZOYX)	1826

Indexes:

List of Company Identifications	1830
Index of Companies	1853
Index of Product Categories	1937

OVERVIEW OF THE UL FAMILY OF COMPANIES, THE UL MARK AND CONFORMITY ASSESSMENT SERVICES

UL Marks	1964
Conformity Assessment Services	1964
Listing Service	
Classification Service	
Component Recognition Service	
Multiple Product Category Investigation	
Certificate Service	
Multiple Listing, Recognition or Classification Service	

Other UL Services

Field Engineering Services	1967
Field Evaluation Service	
Field Inspection Service	
Electromagnetic Compatibility Testing	1968
<i>The International "emc-mark"</i>	
Performance Testing	1968
<i>Lan Cable Performance Testing</i>	
<i>Energy Verification Service</i>	
<i>Other Performance Testing</i>	
International Certification	1969
Specialized Services	1969
Customer Service Professionals (CSPs)	
Regulatory Services	
Local Engineering Services	
Fact-finding Investigations	
Research Services	
Verification Services Testing and Auditing	

UL Information Services

UL's Technical Information Services	1971
---	------



Documents

Document Sharing Hub

Product Directory CDs	
UL's Website	
Helping Clients Promote Their UL Certification in Advertising Materials	
UL Standards for Safety	
<i>Standards and Standards-on-Diskette Subscription Services</i>	
<i>UL Standards Publications</i>	
<i>UL StandardsInfoNet</i>	
UL Knowledge Services	1972
Regulatory Services Staff	1974

Introduction

This Directory contains the names of companies authorized to use the UL Mark on or in connection with products that have been investigated by UL and found to be in compliance with UL's requirements. These companies, as well as the manufacturers and submitters of the products, have entered into an Agreement with UL to use the UL Mark only on or in connection with products manufactured in compliance with UL's requirements. It should be noted that UL certified products of different makes or model designations are not necessarily equivalent in quality or performance.

The appearance of catalog or model numbers or other specific product designations in this Directory signifies that: (1) representative samples of these products have been submitted to UL and found to comply with the applicable requirements, and that (2) the manufacturer has been authorized to use the appropriate UL Mark on production that continues to comply with UL's requirements and is subject to UL's Follow-Up Service. Since manufacturers are not obligated to apply the UL Mark on all of their production, products that do not bear the UL Mark are not required by UL to comply with UL's requirements. Accordingly, the appearance of a company's name or a specific product designation in this Directory does **not** in itself ensure that products so specified or identified are subject to UL's Follow-Up Service. The manufacturer's products are not subject to UL's Follow-Up Service unless they bear the UL Mark. **Only those products bearing the appropriate UL Mark and the company's name, trade name, trademark or other authorized identification should be considered as being covered by UL's Listing or Classification and Follow-Up Service. The UL Mark provides evidence of listing or labeling, which may be required by installation codes or standards.**

Many of the products bearing the UL Mark incorporate components that bear the UL Recognized Component Mark . The Recognized Component Mark is applicable to components that are incomplete in construction features or limited in performance capabilities. **The Recognized Component Mark does not provide evidence of listing or labeling, which may be required by installation codes or standards.**

This Directory contains Listings and Classifications in effect as of March 28, 2012. Records of Listings and Classifications issued or withdrawn after this date will be found in UL's Listing Information database. In addition, Listings and Classifications issued after the effective date will be found in UL's Online Certifications Directory at www.ul.com/database and will appear in the next annual Directory.

Note: At the back of this Directory is important information about UL services for manufacturers and other clients, Authorities Having Jurisdiction, and consumers.

Installation and Use of Products Bearing the UL Mark

Authorities Having Jurisdiction should be consulted as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, systems, devices and materials.

UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. UL shall not incur any obligation or liability for any loss, expense or damages, including incidental or consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guide Information.

Use of this Directory

This Directory includes the following:

- General Guide Information for each product category that includes references to the requirements used for the investigation of the products and the UL Mark to be used on the product;
- Information relating to limitations or special conditions applying to the product;
- Names of companies that are authorized to provide products bearing the UL Mark.

The companies whose names appear in this Directory may not be the manufacturer of the product, but are qualified to provide products that bear the UL Mark.

UL Listings and Classifications are arranged alphabetically in this Directory by product category and alphabetically by company name under each category. The four-letter code (shown in parentheses) following each category title is the product category guide designation.

Under individual product categories, each company is assigned an alphanumeric file number (starting with letters such as AU, BP, E, EX, MH, MP, MQ, R, S or SA). This number may not be required to be marked on the product. The file number can be used to identify a particular company and the associated product category.

To assist in the use of the Directory, an Index of Product Categories, an Index of Companies and a List of Company Identifications are provided (see Table of Contents). The List of Company Identifications contains the trade names or trademarks of companies that have chosen to use such identification in place of or in addition to their company name.

UL's General Guide Information at the beginning of each product category provides important information regarding the scope and limitation of UL's certification of the product and a general description of the UL Marks authorized for products in that category.

This information may include the identification of published standards that have been used to investigate products in that category. There may not be a published standard against which a product can be tested and evaluated to determine its acceptability for the UL Mark. If no applicable standard is available, UL will exercise its judgment in the selection of applicable requirements from standards and other sources and will develop requirements to cover uses and conditions for which specific requirements did not previously exist.

The scope of each UL Standard for Safety and Outline of Investigation can be accessed at <http://ulstandardsinfo.net.ul.com>.

The information in the individual Listing or Classification varies from category to category depending on the needs of the users of the Directory. Certain Listings or Classifications contain specific model or catalog designations, others contain general types of products, and others include the company name only.

For some product categories, UL's Online Certifications Directory may include additional product information that does not appear in this Directory. To obtain additional information for a particular Listing or Classification or information on UL Listed and Classified products and Recognized Components, contact the Customer Experience Center by telephone: +1.877.UL.HELPS (1.877.854.3577) or e-mail at cec.us@us.ul.com.

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Look for the UL Mark

Identification of UL Listed and Classified Products

The symbol  and the name "Underwriters Laboratories Inc." in various forms and abbreviations are registered with the U.S. Patent and Trademark Office, and in numerous other countries. Subject to the terms of UL's Follow-Up Service Agreement, companies are permitted to use the symbol  or other specified forms of UL's name as part of the UL Mark on products that are Listed or Classified and that comply with UL's requirements.

The product name as indicated in the General Guide Information for each product category is generally included as part of the UL Mark, but may be omitted when, in UL's opinion, the use of the name is unnecessary and the UL Mark is directly and permanently applied to the product by stamping, molding, ink-stamping, silk screening or similar processes.

A separable UL Mark (not part of a nameplate and in the form of decals, stickers or labels) will always include the following four elements: UL's symbol , the word "LISTED" or "CLASSIFIED," the product or category name, and a control number assigned by UL.

The complete UL Mark will appear on the product unless otherwise indicated in the General Guide Information for a specific product category.

When a UL Listed product is of such a size, shape, material or surface texture that, in UL's opinion, it is impossible to apply legibly the complete marking to the product, the complete UL Listing Mark will appear on the smallest unit container in which the product is packaged. In these cases UL may authorize the use of the UL symbol  on the product in addition to the complete UL Mark on the package.

When a UL Classified product is of such a size, shape, material or surface texture that, in UL's opinion, it is impossible to apply legibly the complete marking to the product, the complete UL Classification Mark will appear on the smallest unit container in which the product is packaged. In these cases there shall be no reference to UL on the product.

Refer to the General Guide Information for each product category for additional information on the specific UL Mark for the products in the category.

Identification of UL Listed Products

The UL Listing Mark generally includes the UL symbol or it may include other registered forms as authorized by UL. The UL Listing Mark includes: (1) the UL symbol shown below; (2) the word "LISTED" ; (3) the product identity; and (4) a control number assigned by UL.



Identification of UL Listed Gas-Fired Products

The UL Listing Mark for gas-fired products certified to UL Standards includes: (1) the UL symbol with the words "GAS-FIRED" above the UL symbol as shown below; (2) the word "LISTED" below the UL symbol; (3) the product identity; and (4) a control number assigned by UL.

GAS-FIRED



LISTED

The UL Listing Mark for gas-fired products certified to ANSI Z21 or Z83 Series Standards includes: (1) the UL symbol with the words "GAS-FIRED" above the UL symbol as shown below; (2) the word "LISTED" below the UL symbol; (3) the ANSI/CSA or ANSI/CGA Standard designation; and (4) a control number assigned by UL.

GAS-FIRED



[identification of standard]

LISTED



Documents

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Identification of UL Listed Environmental and Public Health (EPH) Products

The UL Listing Mark for Environmental and Public Health (EPH) products certified to UL Standards includes: (1) the UL symbol with the letters EPH inside a triangular background as shown below; (2) the word “LISTED” below the UL symbol; (3) the product identity; and (4) a control number assigned by UL.



The UL Listing Mark for Environmental and Public Health (EPH) products certified to standards of other organizations for foreseeable hazards includes: (1) the UL symbol with the letters EPH inside a triangular background as shown below; (2) the word “LISTED” below the UL symbol; (3) the product identity; (4) the standard designation; and (5) a control number assigned by UL.



[identification of standard]

Identification of UL Classified Products

The UL Classification Mark may appear in various forms as authorized by UL. The UL Classification Mark includes: (1) the UL symbol; (2) the word “CLASSIFIED” above the UL symbol; (3) the product identity; (4) a control number assigned by UL; and (5) indication of the extent of UL’s evaluation of the product, e.g. “AS TO [nature of hazard] ONLY” ; rating or classification as specified in the General Guide Information pertaining to the product category; “IN ACCORDANCE WITH [designation and title of standard published by other organization]” ; or “FOR USE WITH [identification of specified product].” A typical Classification Mark is shown below:



AS TO [nature of hazard] ONLY
or
IN ACCORDANCE WITH
[identification of standard]

Identification of UL Classified Environmental and Public Health (EPH) Products

The UL Classification Mark for Environmental and Public Health (EPH) products certified to standards of other organizations for EPH evaluations only includes: (1) the UL symbol with the letters EPH inside a triangular background, as shown below; (2) the word “CLASSIFIED” above the UL symbol; (3) the product identity; (4) the standard designation; and (5) a control number assigned by UL.



[identification of standard]

Additional information regarding the UL Marks for Environmental and Public Health (EPH) can be found at the back of this directory under **Other UL Services** and online at www.ul.com/eph.

Identification of UL Listed Products that are Also Classified in Accordance with International or Regional Standards

The UL Listing Mark and Classification Mark shown above can be combined for products that not only meet the applicable UL requirements but also comply with the requirements of the applicable international or regional standards. For these products the combination UL Listing and Classification Mark is shown below:



**ALSO CLASSIFIED
IN ACCORDANCE WITH
[identification of standard]**

Identification of Products Classified in Accordance with International or Regional Standards Only

UL provides a service for the Classification of products that have been determined to comply with the appropriate requirements of the applicable international or regional standards only. For these products, the Classification Mark may appear in various forms as authorized by UL. A typical form which may be authorized is shown below. When the complete Classification Mark cannot be applied to the product, no reference to UL on the product is permitted.



**[product identity]
IN ACCORDANCE WITH
[identification of standard]**

Products Listed by Report

Certain products are Listed under a special service designated as "Listed by Report." These are usually products or constructions for which there are no generally recognized installation requirements. The description of this type of product or construction and information concerning proper field assembly and/or installation are contained in a Report identified by the reference and date shown by the Listing. Products Listed by Report are eligible to bear a UL Mark, which includes a reference to the Report number and date. Copies of the Report may be obtained upon application to the company whose product is Listed.

Specifying UL Listed and Classified Products

Specifying UL Listed and Classified products up front is one of the best methods used by designers, consultants, insurers and others to help gain jurisdictional acceptance. A typical specification reads: "The [product] must bear the UL Mark." Or, if the specification cannot be that precise, an alternate wording would read: "The [product] must meet the requirements of UL. The UL Mark on the product will be accepted as evidence of compliance."

Products, equipment and materials evaluated by UL in accordance with international or regional standards only are intended for installation and use where the specified standards have been adopted.

Electrical Equipment for Use in Ordinary Locations (AALZ) GENERAL

Electrical equipment for use in unclassified (ordinary) locations is intended to be installed in accordance with ANSI/NFPA 70, “National Electrical Code” (NEC). Electrical equipment for use in hazardous (classified) locations, as defined by the NEC, may also be used in ordinary locations.

INVESTIGATION REQUIREMENTS AND STANDARDS

Electrical equipment for use in ordinary locations has been investigated with reference to risks to life and property and for potential conformity to the installation and use provisions of the NEC.

Some products are certified for uses not within the scope of the NEC. Such products are investigated for the specifications or the use conditions indicated in the general Guide Information for each product category.

The standards used to investigate products are identified in the general Guide Information for each product category. There may not always be a published standard for investigating a product to determine its acceptability for Listing or Classification. If no applicable standard is available, UL will exercise its judgment in the selection of applicable requirements from related standards and other sources to develop the requirements to cover uses and conditions for which specific requirements did not previously exist.

Products, equipment and construction materials certified by UL in accordance with international or regional standards only (e.g., products Classified to an IEC or ISO Standard) are intended for distribution, installation and use in areas of the world where the specified standards have been adopted and are in effect as national or regional standards.

The general Guide Information for each product category describes the limitations relative to the products covered, such as current, voltage and horsepower limits, markings, special descriptions and installation provisions.

INSTALLATION REQUIREMENTS

Ordinary locations, as defined in the NEC, include:

Damp Location — Partially protected locations under canopies, marquees, roofed open porches, and like locations, and interior locations subject to moderate degrees of moisture, such as some basements, barns, and cold-storage warehouses.

Dry Location — A location not normally subject to dampness or wetness. A location classified as dry may be temporarily subject to dampness or wetness, as in the case of a building under construction.

Wet Location — Installations underground or in concrete slabs or masonry in direct contact with the earth, and locations subject to saturation with water or other liquids, such as vehicle washing areas, and locations exposed to weather and unprotected.

Outdoor Use — In general, individual appliances and equipment have been investigated only for use indoors, in dry locations. An exception is where outdoor use is specifically permitted by the Article of the NEC concerned with the product installation. See also the general Guide Information for the product category or included in the individual Listing. In some cases the title (e.g., Snow Movers, Swimming Pool Fixtures) indicates the conditions for which the product has been investigated.

Cord- and plug-connected appliances obviously intended for outdoor use, such as gardening appliances, are not intended for use in the rain, and should be stored indoors when not in use.

Enclosure Types

Section 110.11 of the NEC specifies that equipment shall be identified for use in certain operating environments. Section 300.6 provides guidance regarding protection against corrosion and Table 430.91 provides the basis for selecting motor controller enclosure types for use in specific locations. To assist inspection authorities, UL requires type designations on power distribution and control equipment enclosures such as cabinets and cutout boxes, enclosed panelboards or switchboards, meter sockets, enclosed circuit breakers or switches, industrial control and other equipment. The following table summarizes the intended uses of the various type enclosures for other than hazardous locations:

Enclosure Type Number	Provides a Degree of Protection Against the Following Environmental Conditions*
1	Indoor use
2	Indoor use, limited amounts of falling water
3R	Outdoor use, undamaged by the formation of ice on the enclosure**
3RX	Same as 3R plus resists corrosion
3	Same as 3R plus windblown dust
3X	Same as 3 plus resists corrosion
3S	Same as 3R plus windblown dust, external mechanisms remain operable while ice laden
3SX	Same as 3S plus resists corrosion
4	Outdoor use, splashing water, windblown dust, hose-directed water, undamaged by the formation of ice on the enclosure**
4X	Same as 4 plus resists corrosion
5	Indoor use to provide a degree of protection against settling airborne dust, falling dirt, and dripping noncorrosive liquids
6	Same as 3R plus entry of water during temporary submersion at a limited depth
6P	Same as 3R plus entry of water during prolonged submersion at a limited depth
12, 12K	Indoor use, dust, dripping noncorrosive liquids
13	Indoor use, dust, spraying water, oil and noncorrosive coolants

*All type enclosures provide a degree of protection against ordinary corrosion and against accidental contact with the enclosed equipment when doors of covers are closed and in place. All type enclosures provide protection against a limited amount of falling dirt.

**All outdoor type enclosures provide a degree of protection against rain, snow and sleet. Outdoor enclosures are also suitable for use indoors if they meet the environmental conditions present.

An enclosure that complies with the requirements for more than one type of enclosure may be marked with multiple designations.

Enclosures marked with a type may also be marked as follows:

- A Type 1 enclosure may be marked “Indoor Use Only”
- A Type 3, 3X, 3S, 3SX, 4, 4X, 6 or 6P enclosure may be marked “Raintight”
- A Type 3R or 3RX enclosure may be marked “Rainproof”
- A Type 4, 4X, 6 or 6P enclosure may be marked “Watertight”
- A Type 3X, 3RX, 3SX, 4X or 6P enclosure may be marked “Corrosion Resistant”
- A Type 2, 5, 12, 12K or 13 enclosure may be marked “Driptight”
- A Type 3, 3X, 3S, 3SX, 5, 12K or 13 enclosure may be marked “Dusttight”

For equipment designated “Raintight,” testing designed to simulate exposure to a beating rain will not result in entrance of water. For equipment designated “Rainproof,” testing designed to simulate exposure to a beating rain will not interfere with the operation of the apparatus or result in wetting of live parts and wiring within the enclosure. “Watertight” equipment is so constructed that water does not enter the enclosure when subjected to a stream of water. “Corrosion resistant” equipment is so constructed that it provides degree of protection against exposure to corrosive agents such as salt spray.

“Driptight” equipment is so constructed that falling moisture or dirt does not enter the enclosure. “Dusttight” equipment is so constructed that circulating or airborne dust does not enter the enclosure.

Sizes and Ratings

The scope of product sizes and ratings appearing in the general Guide Information for some product categories is intended to indicate the current range of Listed products, however, it is not necessarily indicative of limitations for those Listed products.

Marked ratings of utilization equipment include ampere, wattage or volt-ampere ratings. Motor-operated utilization equipment may also be marked with a horsepower rating. The actual marked ratings (other than the horsepower rating) and other markings or instructions, if any, are to be used to select branch-circuit conductors, branch-circuit overcurrent protection, control devices and disconnecting means.

The ampere or wattage marking on power-consuming equipment is valid only when the equipment is supplied at its marked rated voltage. In general, the current input to heating appliance or resistance heating equipment will increase in direct proportion to an increase in the supply voltage, while the current

input to an induction motor supplying a constant load will increase approximately in direct proportion to a decrease in the supply voltage. These increases in current can cause overcurrent protection devices to open even when these devices are properly selected on the basis of nameplate ratings.

Appliance and Utilization Equipment Terminations

Except as noted in the general Guide Information for some product categories, most terminals, unless marked otherwise, are for use only with copper wire. If aluminum or copper-clad aluminum wire can be used, marking to indicate this fact is provided. Such marking is required to be independent of any marking on terminal connectors, such as on a wiring diagram or other visible location. The marking may be in an abbreviated form, such as “AL-CU.”

Except as noted in the general Guide Information for some product categories, the termination provisions are based on the use of 60°C insulated conductors in circuits rated 100 A or less, and the use of 75°C insulated conductors in higher rated circuits as specified in Table 310.16 of the NEC. If the termination provisions on equipment are based on the use of other conductors, the equipment is either marked with both the size and temperature rating of the conductors to be used or with only the temperature rating of the conductors to be used. If the equipment is only marked for use with conductors having a higher (75 or 90°C) temperature rating (wire size not specified), the 60°C ampacities (for circuits rated 100 A or less) and 75°C ampacities (for circuits rated over 100 A) should be used to determine wire size. Conductors having a temperature rating higher than specified may be used, though not required, if the size of the conductors is determined on the basis of the 60°C ampacity (circuits rated 100 A or less) or 75°C ampacity (circuits rated over 100 A).

Distribution and Control Equipment Terminations

Most terminals are suitable for use only with copper wire. Where aluminum or copper-clad aluminum wire can or shall be used (some crimp terminals may be Listed only for aluminum wire), there is marking to indicate this. Such marking is required to be independent of any marking on terminal connectors, such as on a wiring diagram or other visible location. The marking may be in an abbreviated form, such as “AL-CU.”

Except as noted in the following paragraphs or in the general Guide Information for some product categories, the termination provisions are based on the use of 60°C ampacities for wire size Nos. 14-1 AWG, and 75°C ampacities for wire size Nos. 1/0 AWG and larger, as specified in Table 310.16 of the NEC.

Some distribution and control equipment is marked to indicate the required temperature rating of each field-installed conductor. If the equipment, normally intended for connection by wire sizes within the range 14-1 AWG, is marked “75C” or “60/75C,” it is intended that 75°C insulated wire may be used at full 75°C ampacity. Where the connection is made to a circuit breaker or switch within the equipment, such a circuit breaker or switch must also be marked for the temperature rating of the conductor.

A 75°C conductor temperature marking on a circuit breaker or switch normally intended for wire sizes 14-1 AWG does not in itself indicate that 75°C insulated wire can be used unless 1) the circuit breaker or switch is used by itself, such as in a separate enclosure, or 2) the equipment in which the circuit breaker or switch is installed is also so marked.

A 75 or 90°C temperature marking on a terminal (e.g., AL7, CU7AL, AL7CU or AL9, CU9AL, AL9CU) does not in itself indicate that 75 or 90°C insulated wire can be used unless the equipment in which the terminals are installed is marked for 75 or 90°C.

Higher temperature rated conductors than specified may be used if the size is based on the above statements.

Copper-clad Aluminum Conductors — Copper-clad aluminum conductors are subject to the ampacity requirements applicable to aluminum conductors.

Copper Pigtail Leads — Copper pigtail leads may be used with aluminum or copper-clad aluminum supply wires in dry locations if 1) the splicing devices are Listed for use in joining copper to aluminum, 2) there is sufficient wiring space, and 3) the means provided for connecting the wiring system are acceptable for the wire size used.

Wiring Devices — Supply terminals of 15 A and 20 A switches and receptacles not marked “CO/ALR” are for use with copper and copper-clad aluminum conductors only. Terminals marked “CO/ALR” are for use with aluminum, copper and copper-clad aluminum conductors.

Screwless pressure terminal connectors of the conductor push-in type are for use only with copper and copper-clad aluminum conductors, both solid and stranded, unless otherwise limited by marking.

Terminals of switches and receptacles rated 30 A and above not marked “AL/CU” are for use with copper conductors only. Terminals of switches rated 30 A and above marked “AL/CU” are for use with aluminum, copper and copper-clad aluminum conductors.

Wire Connectors — Combinations of dissimilar conductors in terminal or splicing connectors are acceptable only in dry locations and when the connectors are identified as suitable for such intermixing. See also the information under Wire Connectors and Soldering Lugs (ZMVV).

Terminals — Product terminals, including wire connectors and terminal screws, are acceptable for connection of only one conductor, unless there is marking or a wiring diagram indicating the number of conductors which may be connected.

Tightening Torque — Some equipment may be marked to show a tightening torque for wire connectors intended for use with field wiring.

Supply Cords — When flexible supply cords or cord sets are replaced on utilization equipment and appliances, the replacement should be of the same type, AWG size, voltage rating and temperature rating as originally used.

INSTRUCTIONS AND PRODUCT MARKINGS

These products are intended to be installed in accordance with the installation instructions provided with the product. It is critical that the cautionary statements and installation and operating instructions on the product and in accompanying literature be followed.

FIELD MODIFICATIONS

The UL Mark applies to the product as it is originally manufactured when shipped from the factory. Authorized use of the UL Mark is the manufacturer's declaration that the product was originally manufactured in accordance with the applicable requirements. UL does not know what the effect of a modification may have on the safety of the product or the continued validity of the UL certification mark unless the field modifications have been specifically investigated by UL. Unless UL investigates a modified product, UL cannot indicate that the product continues to meet UL's safety requirements.

The only exception for a field modification authorized by UL is when the product has specific replacement markings. For example, a switchboard may have specific grounding kits added in the field. The switchboard is marked with a list of specific kit numbers that have been investigated for use in that particular switchboard. Only grounding kits that are included on the product have been investigated for use in that product.

MARINE EQUIPMENT

Certain equipment has been specifically investigated and certified for use aboard marine vessels. Such equipment has been investigated in accordance with the applicable requirements of UL, the United States Coast Guard (USCG), the American Boat and Yacht Council, Inc. (ABYC), and the National Fire Protection Association (NFPA). For additional information, see the general Guide Information for the specific product category. Equipment bearing UL's Marine Mark is suitable for use only with stranded copper wire.

UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. UL shall not incur any obligation or liability for any loss, expense or damages, including incidental or consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guide Information.

2012 ELECTRICAL CONSTRUCTION EQUIPMENT DIRECTORY

ADVERTISING DISPLAYS, NONILLUMINATED (AAVU)

ADVERTISING DISPLAYS, NONILLUMINATED (AAVU)

This listing covers electrically operated, nonilluminated, units intended to draw attention to, or to display, demonstrate or advertise products.

Advertising displays intended for permanent installation indoors only are so marked. Cord and plug connected advertising displays suitable for outdoor use are marked "Outdoor".

Advertising displays including illumination, are Listed under Electric Signs (UYXT). Advertising displays that include a changing message sign are covered under the categories of Electric Signs (UYXT) and Signs, Changing Message (UYFS).

For additional information, see Electrical Equipment for Use in Ordinary Locations (AALZ).

The basic standards used to investigate products in this category are UL 48, "Electric Signs" and UL 73, "Motor-Operated Appliances".

The Listing Mark of UL on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Listing Mark for these products includes the UL symbol (as illustrated in the Introduction of this Directory) together with the word "LISTED," a control number, and one of the following product names as appropriate: "Advertising Display", "Non-Illuminated Advertising Display", "Animated Display", or other appropriate product name.

UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. UL shall not incur any obligation or liability for any loss, expense or damages, including incidental or consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guide Information.

MIDWEST CUSTOM CASE INC

UNIT A 425 CROSSINGS DR, UNIVERSITY PARK IL 60466

E349674

ELEVATOR AND ESCALATOR SYSTEMS, SUBSYSTEMS, COMPONENTS AND FUNCTIONS (AECO)

GENERAL

This category covers elevator and escalator systems, subsystems, components and related functions investigated for conformance to ASME A17.7/CSA B44.7, "Performance-Based Safety Code for Elevators and Escalators."

Elevator and escalator systems include subsystems, components and functions investigated as complete units. Subsystems, components and functions of a system are specifically designated in the installation instructions provided with the system.

Where an elevator system is designated as a "model elevator," it is considered representative of series-produced elevators with the same design and configuration. All permitted variations between the model elevator and the installed elevators are clearly specified (with minimum and maximum values, features, etc.) in the technical documentation accompanying the Certificate of Conformance.

Continued surveillance of the manufacture of approved designs of systems, subsystems, components and functions is a part of this program. Inspections and tests of representative installations are made to determine the correctness of installation of subsystems, components and functions, wiring, quality of workmanship, operability of circuits, and maintenance.

This category does not cover the investigation of the design, construction, operation, inspection, testing, maintenance, alteration, or repair of elevator and escalator systems, subsystems, components and related functions using the conventional process of implementing ANSI/ASME A17.1/CSA B44, "Safety Code for Elevators and Escalators" (Option 1 as described in ASME A17.7/CSA B44.7).

RELATED PRODUCTS

Certain elevator and escalator products may be certified using the requirements contained in various UL Standards and/or ANSI/ASME A17.1/CSA B44. These certifications are covered under various product categories. The following is a partial list of where information can be found on these products.

Elevator control panels consisting of assemblies of equipment intended to control elevators, dumbwaiters, escalators, moving walks, inclined lifts and their associated equipment are covered under Elevator Control Panels (FQPB).

Elevator control panels intended for use in hazardous (classified) locations are covered under Elevator Control Panels for Use in Hazardous Locations (FSNA). Elevator control panels relating to hazardous (classified) locations that are intended for installation in unclassified locations are covered under Elevator Control Panels Relating to Hazardous Locations (FSSA).

Accessories and controllers intended for use in elevator applications, including elevator accessories such as push buttons, indicator lights and luminaires, and elevator controls such as power supplies (motor and door operators) are covered under Elevator Controls and Accessories (FQMW).

Elevator hoistway door interlocks and elevator hoistway door combination mechanical locks and electric contacts are covered under Elevator Door-locking Devices and Contacts (FQXZ).

Elevator door-locking devices and contacts intended for use in hazardous (classified) locations are covered under Elevator Door-locking Devices and Contacts for Use in Hazardous Locations (FSNT).

Switches intended for use with elevator system cars or shafts are covered under Elevator Switches (FRAH).

Passenger elevator car enclosures incorporating materials and equipment such as decorative panels, suspended ceilings and luminaires are covered under Passenger Elevator Car Enclosures (FRBK).

ADDITIONAL INFORMATION

For additional information, see Electrical Equipment for Use in Ordinary Locations (AALZ), Mechanical Equipment and Associated Products (AAME) and Building Materials (AABM).

REQUIREMENTS

The basic standards used to investigate products in this category are:

ANSI/ASME A17.1/CSA B44, "Safety Code for Elevators and Escalators"

ANSI/ASME A17.5/CSA B44.1, "Elevator and Escalator Electrical Equipment"

ASME A17.7/CSA B44.7, "Performance-Based Safety Code for Elevators and Escalators"

ISO/TS 22559-1, "Safety Requirements for Lifts (Elevators) – Part 1: Global Essential Safety Requirements (GESRs) for Lifts (Elevators)"

CERTIFICATE OF CONFORMANCE

The Certificate of Conformance serves as evidence that a representative sample of the elevator or escalator system, subsystem or component and related functions has been investigated for conformance to ASME A17.7/CSA B44.7.

The Certificate (and accompanying documents, if any) is intended to provide Authorities Having Jurisdiction with basic information on the requirements for installation and maintenance of an elevator or escalator system, subsystem or component and related functions for conformance to ASME A17.7/CSA B44.7.

The Certificate does not cover the final installation of the entire elevator or escalator equipment in the building or structure.

The Certificate includes:

1. the name and address of the
 - a. manufacturer of the subsystem, component or function, and the name and address of the applicant (if other than the manufacturer), or
 - b. supplier whose products are the subject of the certification;

2. the scope of the certification, including, as appropriate,
 - a. the product(s) certified, which is permitted to be identified by type or range of products. Where the certification is for a function, the product identity includes the word "Function";
 - b. relevant parts of ASME A17.7/CSA B44.7 (e.g., GESRs, SPs) to which each product or product type is certified, and
 - c. statement of compliance with ASME A17.7/CSA B44.7;
 - d. where the certification is for a function, the identity of all of the components, firmware, software, etc., associated with the function; and
3. the effective date of the Certificate and the term (time limit), or expiration date;
4. a unique Certificate number;
5. critical information related to installation or maintenance and any conditions or limitations on the installation and use of the product(s).

UL MARK

In addition to the Certificate of Conformance noted above, the Classification Mark of UL also appears on the subsystem or component and is the only method provided by UL to identify subsystems or components manufactured under its Classification and Follow-Up Service. The Classification Mark for these products includes the UL symbol, the word "CLASSIFIED" above the UL symbol (as illustrated in the Introduction of this Directory), and the following additional information:

[PRODUCT IDENTITY, MODEL, STYLE, etc.]
IN ACCORDANCE WITH ASME A17.7/CSA B44.7
Certificate No.

The Certificate number identifies the Certificate(s) of Conformance that contains the basic information on the use of the product in the elevator system, and the requirements for installation and maintenance of an elevator or escalator system, subsystem or component and related functions for conformance with the requirements of ASME A17.7/CSA B44.7.

If a component or subsystem is certified for use with more than one system, the Classification Mark may contain more than one Certificate number.

Where the certification is for a function, the Classification Mark appears on each of the critical parts associated with the function or on a major part of the system incorporating key components of the function (such as a control panel). The product identity includes the word "Function" (e.g., "Function Software," "Switch Override Function") and the certificate identifies all of the components, firmware, software, etc., associated with the function.

UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. UL shall not incur any obligation or liability for any loss, expense or damages, including incidental or consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guide Information.

AVANTI WIND SYSTEMS INC
5150 S TOWNE DR, NEW BERLIN WI 53151

SA33120

Model or Type Dsg	Certificate No.	Effective Date	Expiration Date
Model elevator system 50LZXXXX (See Notes Below)	2011120809CA35125 (Revised 2012-02-09)	December 8, 2011	December 8, 2014

Notes:

1. "50" specifies the manufacturing location – New Berlin, WI USA
2. "L" specifies Shark Model
3. "Z" specifies the manufacturer or design and can be from 0 to 9
4. "XXXX" specifies the serial number

OTIS ELEVATOR CO
ENGINEERING CENTER 5 FARM SPRINGS, FARMINGTON CT
06032

SA33084

Model or Type Dsg	Certificate No.	Effective Date	Expiration Date
Coated Steel Belts Model AAA717X1 (Drawing: DWG AAA717X)	2009031209CA07092 (Revised 2011-09-01) Reissued as 2012031212CA14332	March 12, 2012	March 12, 2015
Model AAA717AD1 (Drawing: DWG AAA717AD)	2009031209CA07092 (Revised 2011-09-01) Reissued as 2012031212CA14332	March 12, 2012	March 12, 2015
Model AAA717W1 (Drawing: DWG AAA717W)	2009031209CA07092 (Revised 2011-09-01) Reissued as 2012031212CA14332	March 12, 2012	March 12, 2015
Model AAA717R1 (Drawing: DWG AAA717R)	2009031209CA07092 (Revised 2011-09-01) Reissued as 2012031212CA14332	March 12, 2012	March 12, 2015
Model AAA717AJ2 (Drawing: DWG AAA717AJ) Coated Steel Belt Terminations Model TAA20650F1	2011111411CA52962	November 14, 2011	November 14, 2014
Model TAA20650F2	2009031209CA07092 (Revised 2011-09-01) Reissued as 2012031212CA14332	March 12, 2012	March 12, 2015
Model TAA20650H1	2009031209CA07092 (Revised 2011-09-01) Reissued as 2012031212CA14332	March 12, 2012	March 12, 2015
Model TAA20650H2	2009031209CA07092 (Revised 2011-09-01) Reissued as 2012031212CA14332	March 12, 2012	March 12, 2015
Model TAA20650H6	2009031209CA07092 (Revised 2011-09-01) Reissued as 2012031212CA14332	March 12, 2012	March 12, 2015



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2012 ELECTRICAL CONSTRUCTION EQUIPMENT DIRECTORY

ELEVATOR AND ESCALATOR SYSTEMS, SUBSYSTEMS, COMPONENTS AND FUNCTIONS (AECO)

3

Model or Type Dsg	Certificate No.	Effective Date	Expiration Date
Model TAA20650H7	2009031209CA07092 (Revised 2011-09-01) Reissued as 2012031212CA14332	March 12, 2012	March 12, 2015
Model AAA20650S1	2009031209CA07092 (Revised 2011-09-01) Reissued as 2012031212CA14332	March 12, 2012	March 12, 2015
Model AAA20650S2	2009031209CA07092 (Revised 2011-09-01) Reissued as 2012031212CA14332	March 12, 2012	March 12, 2015
Model AAA20650S4	2009031209CA07092 (Revised 2011-09-01) Reissued as 2012031212CA14332	March 12, 2012	March 12, 2015
Model AAA20650Y1	2011111411CA52962	November 14, 2011	November 14, 2014
Model AAA20650Y2	2011111411CA52962	November 14, 2011	November 14, 2014
Model AAA20650Y3	2011111411CA52962	November 14, 2011	November 14, 2014
Model AAA20650Y4	2011111411CA52962	November 14, 2011	November 14, 2014
Model AAA20650Y5	2011111411CA52962	November 14, 2011	November 14, 2014
Model AAA20650Y6	2011111411CA52962	November 14, 2011	November 14, 2014
Model AAA20650Y7	2011111411CA52962	November 14, 2011	November 14, 2014
Model AAA20650Y8	2011111411CA52962	November 14, 2011	November 14, 2014
Model AAA20650AD1	2011111411CA52962	November 14, 2011	November 14, 2014
Coated Steel Belt Monitoring Systems "PULSE"			
Model ABA21700X101	2009031209CA07092 (Revised 2011-09-01) Reissued as 2012031212CA14332	March 12, 2012	March 12, 2015
Model ABA21700X102	2009031209CA07092 (Revised 2011-09-01) Reissued as 2012031212CA14332	March 12, 2012	March 12, 2015
Model ABA21700X103	2009031209CA07092 (Revised 2011-09-01) Reissued as 2012031212CA14332	March 12, 2012	March 12, 2015
Model ABA21700X107	2009031209CA07092 (Revised 2011-09-01) Reissued as 2012031212CA14332	March 12, 2012	March 12, 2015
Model ABA21700X108	2009031209CA07092 (Revised 2011-09-01) Reissued as 2012031212CA14332	March 12, 2012	March 12, 2015
Model ABA21700X109	2009031209CA07092 (Revised 2011-09-01) Reissued as 2012031212CA14332	March 12, 2012	March 12, 2015
Model AAA21700AC101	2009031209CA07092 (Revised 2011-09-01) Reissued as 2012031212CA14332	March 12, 2012	March 12, 2015
Model AAA21700AC102	2009031209CA07092 (Revised 2011-09-01) Reissued as 2012031212CA14332	March 12, 2012	March 12, 2015
Model AAA21700AC103	2009031209CA07092 (Revised 2011-09-01) Reissued as 2012031212CA14332	March 12, 2012	March 12, 2015
Model AAC21700AG109	2011111411CA52962	November 14, 2011	November 14, 2014
Model AAC21700AG110	2011111411CA52962	November 14, 2011	November 14, 2014
Model AAC21700AG111	2011111411CA52962	November 14, 2011	November 14, 2014
Model AAC21700AG112	2011111411CA52962	November 14, 2011	November 14, 2014
Model AAC21700AG113	2011111411CA52962	November 14, 2011	November 14, 2014
Model AAC21700AG114	2011111411CA52962	November 14, 2011	November 14, 2014
Model AAC21700AG115	2011111411CA52962	November 14, 2011	November 14, 2014
Model AAC21700AG116	2011111411CA52962	November 14, 2011	November 14, 2014

SAFEWORKS L L C

365 UPLAND DR, TUKWILA WA 98188

SA33229

Model or Type Dsg	Certificate No.	Effective Date	Expiration Date
Model elevator system			
Turbine Service Lift Models W A B C D E F (See Notes Below)	2011030108CA11063	March 1, 2011	March 1, 2014

Note:

- "AB" specifies the tower model / manufacturer and can be any alpha numeric combination
- "C" specifies a door type and can be any of the following:
 - 0 indicating a hinged window
 - 1 indicating a sliding window
 - 2 indicating a rolling window
 - 3 indicating a full rolling door
 - 5 indicating a full sliding door
- "D" specifies the tower height and can be from 0 to 9
- "E" specifies supply voltage and can be any of the following:
 - 0 indicating 208 VAC
 - 1 indicating 400 VAC
 - 2 indicating 600 VAC
 - 3 indicating 690 VAC (stepped down to 600 VAC by a transformer supplied by the end use customer)
 - 4 indicating 480 VAC
- "F" specifies compliance to ASME A17.7 requirements and is a 1



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THYSSENKRUPP ELEVATOR

SA33179

9280 CRESTWYN HILLS DR, GERMANTOWN TN 38125

Model or Type Dsg Function:	Certificate No.	Effective Date	Expiration Date
Door bypass switch functions for TAC50-04 Traction Control System	2010073009CA48622 (Revised 2011-05-02)	July 30, 2010	July 30, 2013
Hoistway access bypass functions for TAC50-04 Traction Control System	2010073009CA48622 (Revised 2011-05-02)	July 30, 2010	July 30, 2013
Hoistway access transfer switch functions for TAC50-04 Traction Control System	2010073009CA48622 (Revised 2011-05-02)	July 30, 2010	July 30, 2013
Hoistway access up and down switch functions for TAC50-04 Traction Control System	2010073009CA48622 (Revised 2011-05-02)	July 30, 2010	July 30, 2013
In-car stop switch override function for TAC50-04 Traction Control System	2010073009CA48622 (Revised 2011-05-02)	July 30, 2010	July 30, 2013
Inspection transfer switch functions for TAC50-04 Traction Control System	2010073009CA48622 (Revised 2011-05-02)	July 30, 2010	July 30, 2013
Inspection up and down switch functions for TAC50-04 Traction Control System	2010073009CA48622 (Revised 2011-05-02)	July 30, 2010	July 30, 2013

Model or Type Dsg Function:	Certificate No.	Effective Date	Expiration Date
Door bypass switch functions for TAC32 Hydro Control System	2011033010ME07795	April 29, 2011	April 29, 2014
Hoistway access bypass functions for TAC32 Hydro Control System	2011033010ME07795	April 29, 2011	April 29, 2014
Hoistway access transfer switch functions for TAC32 Hydro Control System	2011033010ME07795	April 29, 2011	April 29, 2014
Hoistway access up and down switch functions for TAC32 Hydro Control System	2011033010ME07795	April 29, 2011	April 29, 2014
In-car stop switch override function for TAC32 Hydro Control System	2011033010ME07795	April 29, 2011	April 29, 2014
Inspection transfer switch functions for TAC32 Hydro Control System	2011033010ME07795	April 29, 2011	April 29, 2014
Inspection up and down switch functions for TAC32 Hydro Control System	2011033010ME07795	April 29, 2011	April 29, 2014
Operation in Leveling or Truck Zone functions for TAC32 Hydro Control System	2011033010ME07795	April 29, 2011	April 29, 2014

APPLIANCE CONTROLS (ATNZ)

GENERAL

This category covers controllers (single device or interconnected series of components) with one or more input power and possibly signal ports. Included are controllers with solid-state circuitry, and one or more output switching components to directly control all or a portion of household type appliances, such as portable luminaires, audio/video equipment, etc. These controllers typically respond directly or indirectly to sensors or remote control signals to affect operation or electronically store or process information by virtue of a memory system.

These controls are intended only for nonindustrial appliances.

RATINGS

Appliance controls are rated maximum 16 A and are intended to be installed on a 20 A maximum branch circuit. The voltage is limited according to the end-product standard. They are not intended for controlling motor-operated appliances unless specifically identified for such use, e.g., appliance controls designated for control of electric fans. They have been investigated for use in nominal 25°C environments, unless otherwise stated in the individual Listings.

PRODUCT MARKINGS

Controls typically have resistive or general use (power factor 0.75 – 0.80) loads. A controller may be specifically identified for other load types, e.g., "Suitable for ___ W lamp loads," or "Suitable for ___ hp electric fans," where the blank identifies the numerical value of the rating.

RELATED PRODUCTS

Devices intended to be part of a building control system are covered under Management Equipment, Energy (PAZX).
Devices that use light and/or motion (passive infrared)-sensitive switches are covered under Switches, Photoelectric (WJCT).
Devices intended for industrial applications are covered under Power Circuit and Motor-mounted Apparatus (NMTR).
Devices such as thermostats are covered under Temperature-indicating and Regulating Equipment (XAPX).

ADDITIONAL INFORMATION

For additional information, see Electrical Equipment for Use in Ordinary Locations (AALZ).

REQUIREMENTS

The basic standard used to investigate products in this category is UL 244A, "Solid-State Controls for Appliances." Controls for devices investigated to end-product standards, such as ANSI/UL 508, "Industrial Control Equipment," are identified in the individual Listings.

UL MARK

The Listing Mark of UL on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Listing Mark for these products includes the UL symbol (as illustrated in the Introduction of this Directory) together with the word "LISTED," a control number, and the product name "Appliance Control," or other appropriate product name as shown in the individual Listings.

UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. UL shall not incur any obligation or liability for any loss, expense or damages, including incidental or consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guide Information.

AARON & ANDREW INC 11F 138 ALY 162 GIN-YE 3 RD DA-CHI, TAIPEI 104 TAIWAN	E351695
ADVANCED CONTROL TECHNOLOGIES INC 6805 HILLSDALE CT, INDIANAPOLIS IN 46250	E130109
AEON LABS L L C 1228 NORVELL ST., EL CERRITO CA 94530 Appliance controls.	E344580
AIR COOL INDUSTRIAL CO LTD 75 CHUNG SHAN RD, SEC 3 TANTZU HSIANG, TAICHUNG HSIEN 427 TAIWAN Wall unit controls.	E317994
AIRLINE MECHANICAL CO LTD 20TH & 21ST FL KAM MAN FUNG FTY BLDG 6 HONG MAN ST, CHAI WAN HONG KONG Wireless Remote Switch, Direct plug-in units.	E344138
ALARM DEVICE MFG CO 165 EILEEN WAY, SYOSSET NY 11791 Automatic light controllers.	E148580
ALL-LINE INTERNATIONAL INC 5TH FL 102 KUANG FU S RD, TAIPEI 106 TAIWAN Remote receivers. Wireless door chime, Receivers. Outlet appliance controls. Cord-Connected electronic timers.	E102968
ALLIED INNOVATIONS L L C 7215 BERMUDA RD, LAS VEGAS NV 89119 Appliance controls.	E159252
ALUTRON MODULES INC UNIT 8 240 INDUSTRIAL PKY S, AURORA, ON L4G 3V6 CANADA Outdoor appliance controls.	E120066
AMERICA ELEX INC 13188 FLORES ST, SANTA FE SPRINGS CA 90670 Household Use Appliance Control, Touch Dimmer w/Receptacles.	E325689
AMERICAN TACK & HARDWARE CO INC SADDLE RIVER EXECUTIVE CENTRE SUITE 11 RTE 17 S, SADDLE RIVER NJ 07458 Appliance control - lamp dimmers, Touch switches, Motion switches, Direct plug-in photoelectric switches, Direct plug-in touch actuated switches, Direct plug-in remote actuated switches, Dimmer switch with piercing contacts, Plug-in lamp dimmers.	E72217
AMX L L C 3000 RESEARCH DR, RICHARDSON TX 75082 Appliance controls, Appliance control accessories-IR receivers.	E205789
ANDEV INC 8 SHERRYWOOD RD, WAPPINGERS FALLS NY 12590 Direct plug-in units.	E250562
ANSEN ELECTRONICS CO 3RD FL, ROOM 40, 2ND FL, ROOM 73-78 SINO INDUSTRIAL PLAZA KOWLOON BAY, 9 KAI CHENG RD, KOWLOON HONG KONG Wireless remote door chimes.	E302157
APEK SECURE-LITE CO LTD 13TH FL-2 171 SUNGTEH RD, TAIPEI TAIWAN Direct plug-in units.	E253419
AUTOMATIC MFG LTD BLK B, 15TH FL VERISTRONG INDUSTRIAL CENTRE 36 AU PUI WAN ST, FO TAN SHATIN N T HONG KONG Wall mounted time delay switches.	E102497



AVANTI PRODUCTS, DIV OF MACKLE CO INC 10880 NW 30TH ST, MIAMI FL 33172 Appliance controls.	E201624
BRIGHT IMAGE CORP 2830 S 18TH AVE, BROADVIEW IL 60155 Direct plug-in variable setting portable light dimmers, Direct plug-in photo-sensor control, Direct plug-in single preset setting portable light ("Bulb Life Saver") dimmers, Touch switches, RF - Controlled switches, Solid state dimmers.	E88759
BROAN-NUTONE L L C 926 W STATE ST PO BOX 140, HARTFORD WI 53027 Accessory controls, Appliance switch units.	E104744
BRYANT HUBBELL INC (DELAWARE) 40 WATERVIEW DR, SHELTON CT 06484 Infrared motion switches, Motion switches, Power switch packs, Slave relay packs, Ultrasonic motion switches, Ultrasonic and infrared motion switches, Ultrasonic with/without infrared sensor detector switches.	E172164
CAPITAL PROSPECT LTD ROOM 1303, BLK B VERISTRONG IND CTR 36 AU PUI WAN ST, FOTAN HONG KONG	E218064
CENTRALITE SYSTEMS INC 6420 WALL ST, MOBILE AL 36695	E303231
CHAMBERLAIN GROUP INC 845 LARCH AVE, ELMHURST IL 60126 Indoor household appliance controls.	E102902
CHAMPION COOLER CORP 1724 S SCULLIN, DENISON TX 75020 Control boards, Remote controls.	E240959
CHAO TAI ELECTRON CO LTD 266 ERSHENG 2ND RD CHIEN CHEN DIST, KAOHSIUNG 806 TAIWAN Cord connected control units.	E228941
CHIAN CHYUN ENTERPRISE CO LTD 22 ALLEY 15 - LANE 151 CHUNG SHAN RD SEC 2, SHU-LIN, TAIPEI HSIEN 238 TAIWAN Appliance timers.	E207460
CHIEN CHUEN PLASTIC CO LTD 289 PENG YI RD TAI PING CITY, TAICHUNG HSIEN 411 TAIWAN	E244252
COMPUTIME LTD 17/F GREAT EAGLE CENTRE 23 HARBOUR RD, WANCHAI HONG KONG	E84982
COOPER CONTROLS, DIV OF COOPER INDUSTRIES 203 COOPER CIR, PEACHTREE CITY GA 30269	E104279
COOPER LIGHTING, DIV OF COOPER INDUSTRIES INC 1121 HWY 74 S, PEACHTREE CITY GA 30269	E238374
COOPER WIRING DEVICES 203 COOPER CIR, PEACHTREE CITY GA 30269 Automotive radio receiver units, Home access units.	E130381
COOPER WIRING DEVICES 203 COOPER CIR, PEACHTREE CITY GA 30269	E325082
CRESTRON ELECTRONICS INC 15 VOLVO DR, ROCKLEIGH NJ 07647	E239013
CULLIGAN INTERNATIONAL CO SUITE 1100 9399 W HIGGINS RD, ROSEMONT IL 60018 Remote wireless displays.	E325183
DGC PRODUCTS INC 10 WINTERBERRY LN, MILFORD MA 01757 Direct plug-in wall outlet appliance controllers.	E334442
DIGI INTERNATIONAL 11001 BREN RD E, MINNETONKA MN 55343	E321891



Direct plug-in units.

ECHELON CORP 550 MERIDIAN AVE, SAN JOSE CA 95126 Lamp control modules, Lamp modules.	E215620
ELAN INDUSTRIES INC UNIT B 401 REMINGTON BLVD, BOLINGBROOK IL 60440 Gas appliance fan timer controls.	E229216
ELDAT GMBH IM GEWERBEPARK 14 15711, KOENIGS WUSTERHAUSEN GERMANY Appliance controls.	E254519
EMERSON ELECTRIC CO INSINKERATOR DIV 4700 21ST ST, RACINE WI 53406 Air-switch boxes.	E113049
EVERFLOURISH ELECTRICAL CO LTD WUXIANG TOWN RENJIU VILLAGE YINZHOU, NINGBO, ZHEJIANG 315111 CHINA Cord-connected remote power units.	E335102
EVERSPRING INDUSTRY CO LTD 3RD FL 50 SEC 1 ZHONGHUA RD TUCHENG DISTRICT, NEW TAIPEI 236 TAIWAN Direct plug-in units.	E256953
EVOLVE GUEST CONTROLS INC 85 DENTON AVE, NEW HYDE PARK NY 11040-4002	E334901
FEELUX CO LTD 624-8 SUKWOON-RI KWANGJEOK-MYUN, YANGJU-SI, KYUNGGI-DO 482-844 REPUBLIC OF KOREA Cord connected remote power boosters, Power boosters, Remote power boosters.	E330844
FRANKLIN ELEC-WATER TRANSFER SYSTEMS, SUB OF FRANKLIN ELECTRIC CO INC 301 N MACARTHUR BLVD, OKLAHOMA CITY OK 73127 Landscape lighting system power units.	E234501
FRONTIER TECHNOLOGY CO LTD 6TH FL 495 CHUNG CHENG RD HSIN-TEIN, TAIPEI HSIEN 231 TAIWAN Electronic timers.	E166259
GE LIGHTING BLDG 335C NELA PARK 1975 NOBLE RD, CLEVELAND OH 44112	E197056
GEORGE RISK INDUSTRIES INC 802 S ELM, KIMBALL NE 69145 Current controllers.	E218606
GOES ENERGY INC SUITE 4 13101 S PENN, OKLAHOMA CITY OK 73170 Power Factor Correction Units.	E348071
GOLO CHANG CO LTD 4TH FL 50-3 SAN MIN RD, LU-CHOU, TAIPEI HSIEN 247 TAIWAN Solid state dimmers.	E143676
GOOD WAY TECHNOLOGY CO LTD 3RD FL 135 LN 235 BAOCIAO RD SINDIAN DIST, NEW TAIPEI 231 TAIWAN Direct Plug-In Power Controllers.	E345146
HEATHCO L L C 2445 NASHVILLE RD, BOWLING GREEN KY 42102 Direct plug-in doorbells, Remote controlled appliance control receivers, Wireless switched electrical outlet and transmitter assemblies.	E112259
HERA LIGHTING L P 3025 BUSINESS PARK DR, NORCROSS GA 30071 Appliance controls.	E250226
HOME AUTOMATION INC 4330 MICHOU D BLVD, NEW ORLEANS LA 70129	E248732



Appliance controls, Direct plug-in interface modules, Powerline phase couplers.

HOMERUN HOLDINGS CORP 3400 COPTER RD, PENSACOLA FL 32514	E257233
HONEYWELL INTERNATIONAL INC ACS ENVIRONMENTAL & COMBUSTION CONTROLS 1985 DOUGLAS DR N, GOLDEN VALLEY MN 55422 Power packs, Ultrasonic motion detection switches.	E163097
HONEYWELL SECURITY SUITE 100 2 CORPORATE CENTER DR PO BOX 9040, MELVILLE NY 11747 Remote controlled switched receptacles.	E233359
HUBBELL BUILDING AUTOMATION INC SUITE 100 BLDG 1 9601 DESSAU RD, AUSTIN TX 78754	E118233
HUBBELL BUILDING AUTOMATION INC SUITE 100 BLDG 1 9601 DESSAU RD, AUSTIN TX 78754	E229140
HUBBELL BUILDING AUTOMATION INC SUITE 100 BLDG 1 9601 DESSAU RD, AUSTIN TX 78754 Infrared motion switches, Motion switches, Slave relay packs, Ultrasonic and infrared motion switches, Ultrasonic motion switches, Ultrasonic with or without infrared sensor motion detector switches.	E88585
HUBBELL INC WIRING DEVICE DIV 40 WATERVIEW DR, SHELTON CT 06484	E172129
IKEA WHOLESALE INC PLYMOUTH COMMONS, PLYMOUTH MEETING PA 19462 Appliance controls.	E234062
INNCOM INTERNATIONAL INC SUITE 1 277 W MAIN ST, NIAHTIC CT 06357 Appliance controls; Appliance control, Cord connected unit; Appliance control, open-type, two channel lamp dimmers; Cord connected units, Hardwired units, Open-type, Outlet box units, Remote door bell units, Wall Box Infrastructure (WBI) series.	E231654
INTERMATIC INC INTERMATIC PLAZA 7777 WINN RD, SPRING GROVE IL 60081 Portable lamp timers, Permanently installed timing switches.	E78300
INTERNATIONAL ELECTRONICS INC SUITE 150 1950 CAMINO VIDA ROBLE, CARLSBAD CA 92008 Power access systems.	E185469
JAPEN INDUSTRIAL CO LTD 2 ALLEY 25 LANE 185 CHUNG CHENG RD LU-CHOU DIST, NEW TAIPEI 247 TAIWAN Foot operated incandescent lamp dimmers, Dimmer switches.	E126209
JASCO PRODUCTS CO L L C BLDG B 10 E MEMORIAL RD, OKLAHOMA CITY OK 73114	E195414
JOSEPH ENTERPRISES INC SUITE 300 425 CALIFORNIA ST, SAN FRANCISCO CA 94104 Sound actuated switches.	E92622
JUBILANT LTD ROOM B, 17TH AV PRAIA GRANDE 369 KENG OU COMMERCIAL BLDG MACAU Appliance control dimmers, Appliance control touch dimmers - receptacles.	E349108
KAB ENTERPRISE CO LTD 21ST FL-1 33 MIN SHENG RD, SEC 1, PAN-CHIAO, TAIPEI HSIEN 220 TAIWAN	E211835
KAOYI ELECTRONIC CO LTD 241 SEC 1 MEILIAO RD HOMEI TOWN, CHANGHUA HSIEN 508 TAIWAN	E149873
KEDU ELECTRIC CO LTD PUQI INDUSTRIAL ZONE C HONGQIAO, YUEQING, ZHEJIANG 325608 CHINA	E311100
KREG TOOL CO 201 CAMPUS DR, HUXLEY IA 50124	E324405



Cord-connected remote power units.

LEVITON MFG CO INC 201 N SERVICE RD, MELVILLE NY 11747	E66800
LINEAR L L C SUITE 150 1950 CAMINO VIDA ROBLE, CARLSBAD CA 92008 Indoor household appliance controls.	E237770
LINX TECHNOLOGIES 159 ORT LN, MERLIN OR 97532 Wall mounted receptacle appliance controls.	E334278
LITHONIA CONTROL SYSTEMS, DIV OF LITHONIA LIGHTING 1 LITHONIA WY, CONYERS GA 30012 Power extenders.	E300367
LITHONIA LIGHTING, UNIT OF ACUITY BRANDS INC 1400 LESTER RD, CONYERS GA 30012 Dimmer units.	E316440
LIVING INDEPENDENTLY GROUP INC SUITE 1003 352 7TH AVE, NEW YORK NY 10001 RF Appliance controls.	E323834
LUMENERGI INC SUITE B 8371 CENTRAL AVENUE, NEWARK CA 94560 Appliance Control, Class 2 Lighting Accessory, Wall-box mounted units.	E347481
LUTRON ELECTRONICS CO INC 7200 SUTER RD, COOPERSBURG PA 18036	E174075
LVS INC 2555 NICHOLSON ST, SAN LEANDRO CA 94577	E177193
M H RHODES, DIV OF CAPEWELL COMPONENTS CO L L C 105 NUTMEG RD S, SOUTH WINDSOR CT 06074 Wall mounted fixed wiring units.	E252289
MASCO CORP 7500 HOLLAND RD, TAYLOR MI 48180	E315672
METROPOLITAN INDUSTRIES INC 37 FORESTWOOD DR, ROMEOVILLE IL 60446 Appliance control – Pump controls.	E344996
MICHILIN PROSPERITY CO LTD 5TH FL 11 SANNING ST SANCHUNG DISTRICT, NEW TAIPEI 241 TAIWAN Direct plug-in remote power units.	E337981
MONSTER CABLE PRODUCTS INC 455 VALLEY DR, BRISBANE CA 94005 Appliance controls, Electronic switches, Switch remote units, Remote controlled RF switch receivers.	E313289
MW MCWONG INTERNATIONAL INC 1921 ARENA BLVD, SACRAMENTO CA 95834 Infrared Occupancy Sensors.	E341446
NATIONAL LIGHTING CORP 16826 EDWARDS RD, CERRITOS CA 90703 Cord connected turn dimmers, Cord connected on/off switches.	E225988
NICOR INC SUITE A 2200 MIDTOWN PL NE, ALBUQUERQUE NM 87107 Door chimes.	E323445
NINGBO BAIHUANG ELECTRIC APPLIANCES CO LTD 180 YANSHAN RD HUXIMEN HENGHE TOWN CIXI, NINGBO, ZHEJIANG 315318 CHINA Direct plug-in remote appliance control units.	E251051
NINGBO YALING ELECTRICAL APPLIANCE CO LTD NO.16 INDUSTRY RD ZHANGQI TOWN CIXI, NINGBO, ZHEJIANG 315313 CHINA	E302571



Cord-Connected remote controls, Cord-connected remote power units.

OPTIWATT, SUB OF ROBINSON LIGHTING LTD 995 ARENA RD, WINNIPEG, MB R3G 3H7 CANADA Magnetically operated lighting control modules.	E156569
P T HO WAH GENTING KAWASAN BINTANG IND-II 29,29A & 30 JL BERIGJEN KATAMSO TANJUNG UNCANG, PULAU BATAM, RIAU 29422 INDONESIA Remotely operated switches.	E217511
PACE ELECTRONIC PRODUCTS 34 FOLEY DR, SODUS NY 14551 Fixed wiring units.	E340661
PASS & SEYMOUR INC PO BOX 4822, SYRACUSE NY 13221 Combination 3-way dimmer and 3-way switches, Motion detector wall switch sensor, Power packs, Ultrasonic/Infrared motion detection switches.	E172042
PHILIPS LIGHTING ELECTRONICS N A OHARE INTERNATIONAL CENTER 10275 W HIGGINS RD, ROSEMONT IL 60018	E332428
PHILIPS SOLID-STATE LIGHTING SOLUTIONS INC 3 BURLINGTON WOODS DR, BURLINGTON MA 01803 Cord-connected controller units.	E311553
PILOT INTERNATIONAL LTD ROOM 1708-09, 17/FL TOWER A, REGENT CENTRE 63 WO YI HOP RD, KWAI CHUNG, NT HONG KONG Plug-in solid state touch actuated switches.	E226652
POWERLINE CONTROL SYSTEMS 9031 RATHBURN AVE, NORTHRIDGE CA 91325 Appliance controls, Appliance controllers, Powerline RF carrier/receivers.	E174814
POWERTECH INDUSTRIAL CO LTD 10TH FL 407 CHUNG SHAN RD, SEC 2, CHUNG HO, TAIPEI HSIEN 235 TAIWAN Cord connected remote power units, Cord connected remote & timer power strips, Cord connected with motion sensor & timer power strips, Direct plug-in remote power units, Direct plug-in RF Repeaters, Flush-Type remote power units.	E202438
PRESAIR L L C 1009 W BOSTON POST RD, MAMARONECK NY 10543 Enclosed air actuated on/off switches, Direct plug in remote controlled air actuated switched receptacles.	E171193
PULP STUDIO INC 3211 S LA CIENEGA ST, LOS ANGELES CA 90016 Switchlite glass controllers.	E243212
QUEEN PUO ELECTRICAL CO LTD 10 LANE 162 YUAN TONG RD CHUNG HO DISTRICT, NEW TAIPEI CITY 235 TAIWAN Appliance controls.	E218719
RAB LIGHTING INC 170 LUDLOW AVE PO BOX 970, NORTHVALE NJ 07647	E113487
REGAL KING COMERCIAL OFFSHORE DE MACAU LTDA 8TH FL, UNIT K, CENTRO HOTLINE 335 ALAMEDA DR CARLOS D ASSUMPÇÃO, MACAU MACAU Appliance control dimmers, Appliance control touch dimmers – receptacles.	E204082
RITE-TECH INDUSTRIAL CO LTD 10TH FL 5 DUEN-HUA S RD, SEC 1, TAIPEI TAIWAN Cord connected remote power units, Direct Plug-In Controls.	E249669
SAFEGUARD AUTOMATIC INTERNATIONAL LTD 34 HORNSBY SQUARE SOUTHFIELDS INDUSTRIAL PARK LAINDON, BASILDON, ESSEX SS15 6SD UNITED KINGDOM Direct plug-in units.	E317834
SAFESTART SYSTEMS L L C SUITE 101 80 WELLS HILL RD, WESTON CT 06883	E327193



Appliance controls.

SAN SHIH ELECTRICAL ENTERPRISE CO LTD 209 COUNTY BLVD, SEC 3, PAN CHIAO, TAIPEI HSIEN 22043 TAIWAN Appliance controls, Cord-connected remote controlled appliance controllers, Direct plug-in remote controlled appliance controllers, Indoor timers.	E173709
SAP PRODUCTS LTD UNIT 7, 22ND FL, FUTURA PLAZA 111-113 HOW MING ST KWUN TONG, KOWLOON HONG KONG Sound actuated switches.	E241394
SCHLAGE LOCK CO 3899 HANCOCK EXPY, SECURITY CO 80911 Direct plug-in RF controlled lamp dimmers.	E325805
SCHNEIDER ELECTRIC AUSTRALIA PTY LTD 33-37 PORT WAKEFIELD RD, GEPPS CROSS 5094 AUSTRALIA Direct plugin units, Fixed wiring units, Fixed wiring units, wireless dimmer controls.	E316613
SCHNEIDER ELECTRIC USA INC POWER MANAGEMENT OPERATION SUITE 100 295 TECH PARK DR, LA VERGNE TN 37086 Appliance controls.	E346704
SEARS ROEBUCK & CO 3333 BEVERLY RD, HOFFMAN ESTATES IL 60179	E71809
SENSOR SWITCH INC 900 NORTHROP RD, WALLINGFORD CT 06492 Fixed wiring units, Transmitters.	E239836
SHEENWAY ASIA LTD AUSTIN TOWER, ROOM 1313, 13TH FL 22-26 AUSTIN AVE TSIM SHA TSUI, KOWLOON HONG KONG	E315168
SHEN ZHEN CHUANG JIE XING ELECTRONICS LTD BLDG A6, 3RD FL LAO DONG 1ST INDUSTRIAL ZONE BAO'AN, XI XIANG TOWN, SHENZHEN, GUANGDONG 518102 CHINA Cord connected remote power units, Direct plug-in remote power units, Direct plug-in remote wireless doorbells.	E242401
SILVERPLUS INC 10F-2 659 SEC 1 NEIHU RD, TAIPEI 114 TAIWAN Direct plug-in units.	E330772
SIN TON ELECTRIC CO LTD 20315 THELMA AVE, SARATOGA CA 95070 Appliance controls.	E202064
STEINEL AMERICA INC 9051 LYNDAL AVE S, BLOOMINGTON MN 55420	E331712
STEWART ELECTRONICS INC 1154 JORDAN RD, LYMAN SC 29365-9748 Auxiliary switches, Dimmer switches, Programmable switches, Relay control modules, Relay control plug-in modules.	E180376
STYLING CITY INDUSTRIES LTD INTERNATIONAL PLAZA, 4TH FL, ROOM 418 20 SHEUNG YUET RD, KOWLOON BAY, KOWLOON HONG KONG Direct plug-in remote actuated switches.	E250238
SUNBEAM PRODUCTS INC DBA JARDEN CONSUMER SOLUTIONS 2381 EXECUTIVE CENTER DR, BOCA RATON FL 33431 Appliance controls.	E248412
SUPER STAR TECHNOLOGY CO LTD 5 LN 306 TAI-LIN RD SEC 2 TAI-SHAN SHIANG, TAIPEI HSIEN 243 TAIWAN Appliance controls with remote controlled receptacles, Appliance controls with remote switches, Appliance remote controls with computer control option, Appliance touch controls with remote switches, Wireless remote door chimes.	E121729
SUPER X MFG LTD UNIT 1001 FOOK LEE COMMERCIAL CENTRE 33 LOCKHART RD, WAN CHAI HONG KONG	E126379



Touch dimmers.

SYNAPSE WIRELESS INC 500 DISCOVERY DR, HUNTSVILLE AL 35806 Wireless Lighting Controllers.	E346690
TECHNICAL CONSUMER PRODUCTS INC 325 CAMPUS DR, AURORA OH 44202 Hard wired econotrol receivers, Wall box mounted econotrol dimmer switches.	E246455
TECMARK CORP 7745 METRIC DR, MENTOR OH 44060 Air actuated On/Off switches.	E122805
THE WATT STOPPER INC 2800 DE LA CRUZ BLVD, SANTA CLARA CA 95050	E101196
THOMAS & BETTS CORP 8155 T & B BLVD, MEMPHIS TN 38125 Appliance controls, Appliance touch controls, Lamp holder adapter switches, Remote wall switches, Sound operated switches, Wireless wall switch ceiling adapters.	E120456
TORK INC 1 GROVE ST, MOUNT VERNON NY 10550 Infrared motion switches, Motion switches, Photoelectric Switches, Power switch packs, Ultrasonic and infrared motion switches, Ultrasonic motion switches, Ultrasonic/Infrared motion detection switches.	E108960
USA TECHNOLOGIES INC SUITE 140 100 DEERFIELD LN, MALVERN PA 19355 Cord-connected remote power units.	E300810
VANTAGE CONTROLS INC 1061 S 800 E, OREM UT 84097 AccentPoint dimmer - solid-state outlet adapters, AccentPoint relay - outlet adapters, High voltage relay stations, Drapery stations, Dual relay stacker switches, Electronic on/off switches	E229038
WATTS REGULATOR CO 815 CHESTNUT ST, NORTH ANDOVER MA 01845	E164904
WENZHOU MTLT ELECTRIC APPLIANCES CO LTD TIANCHENG INDUSTRIAL ZONE, YUEQING, ZHEJIANG 325609 CHINA	E347437
WIND HOVER MFG 1866 GOLF COURSE RD, BAYSIDE CA 95524 Sunrise simulator light switches.	E205268
XANBOO INC 115 W 30TH ST, NEW YORK NY 10001 Appliance controls, RF Appliance controls, RF dimming controls, RF siren controls.	E236898
YU YUAN INDUSTRIAL CO LTD 1ST FL 3 S LANE 267 TIAN SHIN RD, SEC 2, FENG YUAN, TAICHUNG 420 TAIWAN Wall unit controls.	E323012
ZING EAR ENTERPRISE CO LTD 1129 STAFFORD DR, CUPERTINO CA 95014 Dimmer controls.	E136609

APPLIANCE OUTLET CENTERS (AUJZ)

This category covers appliance outlet centers, which are factory-built assemblies incorporating pre-installed materials and equipment which, after installation, are usually concealed and may not be accessible for inspection at the installation site.

Materials, including the methods used for installation of electrical, mechanical and plumbing equipment incorporated in these assemblies by their manufacturer have been investigated for installation requirements in accordance with ANSI/NFPA 70, "National Electrical Code," NFPA's National Fire Codes, and model building, plumbing and mechanical codes.

Appliance outlet centers are intended for installation subject to approval by the Authority Having Jurisdiction.

Appliance outlet centers consist of one or more electrical outlets and may have one or more outlets of another type (i.e., gas, steam, water supply and drain) supported within a suitable enclosure. The enclosure itself may consist of individual components providing some compartmentalization and a single cover may be provided to enclose all compartments. They are intended for permanent indoor installation where more than one appliance may be used simultaneously. They are intended for connection to feeder circuits consistent with their marked ratings.

Components utilized in the assembly of appliance outlet centers are intended to be suitable for the use and are investigated to conform with the standard for safety which would be used if the component were to be submitted separately.

UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. UL shall not incur any obligation or liability for any loss, expense or damages, including incidental or consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guide Information.

COMMERCIAL APPLIANCE OUTLET CENTERS (AUUZ)**USE AND INSTALLATION**

This category covers appliance outlet centers, which consist of a group of outlets with or without suitable branch circuit overcurrent protective devices, branch circuit switching and/or timer provisions. This category also covers appliance outlet center enclosures intended for use with specific appliance outlet centers.

These products are not intended for use in residential dwellings.

Commercial appliance outlet centers may be provided as complete assemblies or as open-type designs intended to be mounted in specific enclosures. Devices that constitute an open-type assembly are marked to identify the specific commercial appliance outlet center enclosure into which they are intended to be installed. In addition, the enclosures are marked to indicate the specific commercial appliance outlet center(s) intended for use within the enclosure.

ADDITIONAL INFORMATION

For additional information, see Appliance Outlet Centers (AUJZ), Electrical Equipment for Use in Ordinary Locations (AALZ) and Plumbing and Associated Products (AAPP).

REQUIREMENTS

The basic standard used to investigate products in this category is ANSI/UL 891, "Dead-Front Switchboards."

These products are additionally investigated using ANSI/NFPA 70, "National Electrical Code" (NEC), to ensure compliance with the installation and use provisions of the NEC.

UL MARK

The Listing Mark of UL on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Listing Mark for these products includes the UL symbol (as illustrated in the Introduction of this Directory) together with the word "LISTED," a control number, and the product name "Commercial Appliance Outlet Center" or "Commercial Appliance Outlet Center Enclosure."

UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. UL shall not incur any obligation or liability for any loss, expense or damages, including incidental or consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guide Information.

AMERICAN FOODSERVICE, DIV OF STANDEX INTERNATIONAL 735 FLORENCE RD, SAVANNAH TN 38372	E328929
BOSTON RETAIL PRODUCTS INC 400 RIVERSIDE AVE, MEDFORD MA 02155	E235726
CACO MANUFACTURING CORP 5816 HEISER, HOUSTON TX 77087	E335262
CADDY CORP OF AMERICA PURELAND INDUSTRIAL PARK 509 SHARPTOWN RD PO BOX 345, BRIDGEPORT NJ 08014	E75612
COMBINED UTILITIES BOX SYSTEMS INC #4 5325 N COMMERCE AVE, MOORPARK CA 93021	E304966
COMMERCIAL KITCHENS INC 2320 PEYTON, HOUSTON TX 77032	E235500
COMMERCIAL STAINLESS FABRICATORS INC 1035 COBB IND PARK, MARIETTA GA 30066	E313516
DUNCAN FABRICATING CO 2505 S PARK DR, BIRMINGHAM AL 35211	E32316
EATON 2900 DOC BENNETT RD, FAYETTEVILLE NC 28306	E229162
GAYLORD INDUSTRIES 10900 SW AVERY ST, TUALATIN OR 97062	E73542
GREENHECK FAN CORP, DBA ACCUREX L L C 1100 INDUSTRIAL AVE PO BOX 410, SCHOFIELD WI 54476	E313951
GREENHECK FAN CORP 400 ROSS AVE PO BOX 410, SCHOFIELD WI 54476	E200616
H & K INTERNATIONAL INC 2200 SKYLINE DR, MESQUITE TX 75149	E152104
HALTON INDOOR CLIMATE SYSTEMS LTD 1021 BREVIK PL, MISSISSAUGA, ON L4W 3R7 CANADA	E123959
HIGH MARK MFG INC 205 SW 12TH ST, LOVELAND CO 80537	E237666
HOOD DEPOT INTERNATIONAL INC SUITE H 710 S POWER LINE RD, DEERFIELD BEACH FL 33442	



Commercial Appliance Outlet Centers (AUUZ)–Continued

HUBBELL INC WIRING DEVICE DIV 40 WATERVIEW DR, SHELTON CT 06484	E302222
LAUNDRY SYSTEMS OF THE CAROLINAS 3611 E CROFT CIR, SPARTANBURG SC 29302	E208649
LOW TEMP INDUSTRIES INC, DBA LTI 9192 TARA BLVD PO BOX 795, JONESBORO GA 30237	E76672
MCDONALD'S CORP KROC DR C O B, OAK BROOK IL 60521	E137534
SPENCER FABRICATIONS INC 29511 COUNTY RD 561, TAVARES FL 32778	E199192
SUN AIR 4031 TULL AVE, MUSKOGEE OK 74403	E245206
UNIFIED BRANDS INC 1055 MENDELL DAVIS DR, JACKSON MS 39272	E56744
WIREMOLD CO 60 WOODLAWN ST, WEST HARTFORD CT 06110	E317375

RESIDENTIAL APPLIANCE OUTLET CENTERS (AVGQ)**USE**

This category covers appliance outlet centers intended for use in residential dwellings.

ADDITIONAL INFORMATION

For additional information, see Appliance Outlet Centers (AUJZ), Electrical Equipment for Use in Ordinary Locations (AALZ) and Plumbing and Associated Products (AAPP).

REQUIREMENTS

The basic requirements used to investigate products in this category are contained in ANSI/NFPA 70, "National Electrical Code."

UL MARK

The Listing Mark of UL on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Listing Mark for these products includes the UL symbol (as illustrated in the Introduction of this Directory) together with the word "LISTED," a control number, and the product name "Residential Appliance Outlet Center."

UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. UL shall not incur any obligation or liability for any loss, expense or damages, including incidental or consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guide Information.

IPS CORP 202 INDUSTRIAL PARK LN, COLLIERVILLE TN 38017	E32022
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ARC-DETECTION AND -MITIGATION EQUIPMENT (AVWD)**ARC-MITIGATION EQUIPMENT (AVWP)****GENERAL**

This category covers systems for mitigation of arcing faults within equipment rated up to 600 V ac by creating an alternate path of lower impedance for fault current. These devices may also provide a signal intended for operation of a protective device that opens the faulted circuit, or may include the protective device as part of the equipment.

These devices are completely enclosed units that may either be stand-alone units or a vertical section in a series of sections constituting an assembly of distribution equipment. Where provided as a vertical section in a series of sections constituting an assembly, the mitigation equipment may additionally be Listed as a section of that assembly, and may additionally be Classified as "arc resistant."

The enclosure is marked with one or more of the following Enclosure Type ratings for which it was investigated: Type 1, 2, 3, 3R, 3S, 4, 4X, 5, 6, 6P, 12, 12K or 13. The intended uses for each Enclosure Type are as indicated in Electrical Equipment for Use in Ordinary Locations (AALZ).

These devices have been investigated for operation within the voltage, current, and time parameters as specified by the manufacturer. The use of arc-mitigation equipment does not ensure that the protected equipment will meet the requirements of ANSI/IEEE C37.20.7, "Guide for Testing Metal-Enclosed Switchgear Rated up to 38kV for Internal Arcing Faults."

The ability of these devices to reduce or eliminate damage to equipment, or to reduce the likelihood of personal injury during internal arcing fault conditions, has not been investigated.

RELATED PRODUCTS

Assemblies of vertical sections containing switches, overcurrent devices or other protective devices are covered under Switchboards, Dead-front (WEVZ).

Assemblies of metal-enclosed vertical sections containing low-voltage-power circuit breakers rated up to 600 V ac, including those investigated as "arc resistant," are covered under Switchgear Assemblies, Metal Enclosed, Low-voltage-power Circuit-breaker Type (WUTZ).

Assemblies of vertical sections containing combination motor controllers are covered under Motor Control Centers (NJAV).

ADDITIONAL INFORMATION

For additional information, see Electrical Equipment for Use in Ordinary Locations (AALZ).

REQUIREMENTS

The basic requirements used to investigate products in this category are contained in UL Subject 2748, "Outline of Investigation for Arcing Fault Mitigation Equipment."

UL MARK

Arc-mitigation Equipment (AVWP)–Continued

The Classification Mark of UL on the product is the only method provided by UL to identify products manufactured under its Classification and Follow-Up Service. The Classification Mark for these products includes the UL symbol, the word “CLASSIFIED” above the UL symbol (as illustrated in the Introduction of this Directory), and the following additional information:

**ARC-MITIGATION EQUIPMENT
AS TO FIRE AND SHOCK HAZARDS ONLY**

Control No.

Where provided as a vertical section in a series of sections constituting an assembly, the Classification Mark covers only the section so marked.

GENERAL ELECTRIC CO

510 E AGENCY RD, WEST BURLINGTON IA 52655

Switchgear, Model(s) Type AKD-20

E76012**ARC-FAULT CIRCUIT INTERRUPTERS (AVYI)****USE**

This category covers arc-fault circuit interrupters (AFCI) intended to mitigate the effects of arcing faults that may pose a risk of fire ignition under certain conditions if the arcing persists.

These devices have been investigated to determine their ability to recognize and react to arcing faults. They have also been investigated to determine resistance to unwanted tripping because of the presence of arcing that occurs in control and utilization equipment under normal operating conditions and to verify that operation is not unduly inhibited by the presence of loads and circuit characteristics that may mask or attenuate unwanted arcing.

PRODUCT MARKINGS

Arc-fault circuit interrupters are marked to identify the type of device to aid the user in determining the intended location in a circuit.

UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. UL shall not incur any obligation or liability for any loss, expense or damages, including incidental or consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guide Information.

ARC-FAULT CIRCUIT INTERRUPTERS, BRANCH/FEEDER TYPE (AVZQ)**USE**

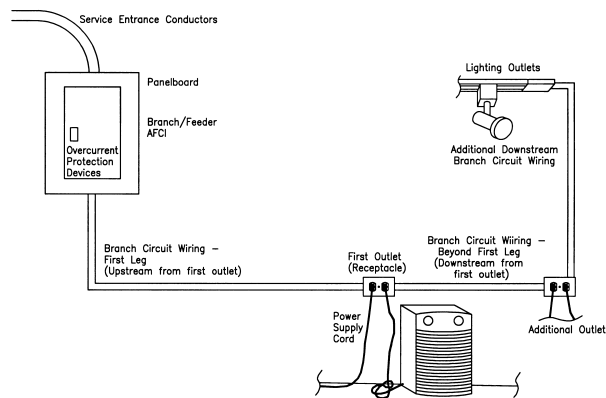
This category covers arc-fault circuit interrupters intended to be installed at the origin of a branch circuit or feeder, such as at a panelboard, where they can function to de-energize the entire branch circuit when an arc fault is detected.

These devices are intended to provide protection of the branch-circuit wiring, feeder wiring, or both, against the unwanted effects of arcing. These devices also provide protection to cord sets and power-supply cords connected to receptacles as shown below.

These devices may be self-contained within an enclosure, separate devices intended to be mounted in an enclosure, or integrated as part of another device, such as a circuit breaker.

PROTECTION PROVIDED

The following branch-circuit diagram and arc-fault protection table illustrate the protection provided by a branch/feeder AFCI under various arc-fault scenarios.

**Arc-fault Scenario****Branch-circuit Wiring**

Parallel Arcing Detection

Series Arcing Detection (With Ground)

Series Arcing Detection Without Ground (#)

Protection Provided

Y

Y

N

Cord Sets (Extension Cords), Power-supply Cords

Parallel Arcing Detection

Series Arcing Detection

Y

N

Notes

- Y – Arc-fault protection provided
- N – Arc-fault protection not provided
- (#) Branch-circuit wiring systems without ground were permitted prior to the 1962 NEC
- Parallel arcing detection includes arcing line-to-line and line-to-ground

RATINGS

These devices are rated 15 or 20 A, 120 or 120/240 V.

PRODUCT MARKINGS

Branch/feeder-type AFCIs are marked “Branch/Feeder Type Arc-Fault Circuit-Interrupter” or “Branch/Feeder Type AFCI” where visible, with a dead-front or faceplate removed, while the device is installed.

Arc-fault Circuit Interrupters, Branch/Feeder Type (AVZQ)–Continued

ADDITIONAL INFORMATION

For additional information, see Arc-fault Circuit Interrupters (AVYI) and Electrical Equipment for Use in Ordinary Locations (AALZ).

REQUIREMENTS

The basic standard used to investigate products in this category is ANSI/UL 1699, “Arc-Fault Circuit-Interrupters.”

UL MARK

The Listing Mark of UL on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Listing Mark for these products includes the UL symbol (as illustrated in the Introduction of this Directory) together with the word “LISTED,” a control number, and the product name “Branch/Feeder Arc Fault Circuit Interrupter” (or “Branch/Feeder AFCI”).

UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. UL shall not incur any obligation or liability for any loss, expense or damages, including incidental or consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guide Information.

EATON

E45310

1000 CHERRINGTON PKY, MOON TOWNSHIP PA 15108

EATON

E7819

1000 CHERRINGTON PKY, MOON TOWNSHIP PA 15108

Branch/Feeder Type AFCI, (Design 4), Model BR with Suffix AF.

Branch/Feeder Type AFCI, (Design 4), Model CH with Suffix AF.

Branch/Feeder Type AFCI, Model BR with Suffix AF and QBAF.

Branch/Feeder Type AFCI, (Design 6), Model BR with Suffix AF.

Branch/Feeder Type AFCI, (Design 6), Model CH with Suffix AF.

Branch/Feeder Type AFCI, Model BR with Suffix AF.

Branch/Feeder Type AFCI, (Design 7), Model CH with Suffix AF.

Branch/Feeder Type AFCI, Model BR with Suffix AF.

Branch/Feeder Type AFCI, (Design 8), Model CH with Suffix AF.

Branch/Feeder Type AFCI, Model BR with Suffix AF.

Branch/Feeder Type AFCI, Model CH with suffix AF or AFIT.

Branch/Feeder Type AFCI, Model BRAF with suffix AF or AFIT.

GENERAL ELECTRIC CO

E11592

41 WOODFORD AVE, PLAINVILLE CT 06062

Branch/Feeders Type AFCI, Models THQL-AF, THHQL-AF, THQB-AF, THHQB-AF, TXQL-AF, TXQB-AF.

SCHNEIDER ELECTRIC USA INC / SQUARE D CO

E84967

1010 AIRPARK CENTER DR, NASHVILLE TN 37217

Circuit Breaker and Branch/Feeder Arc Fault Circuit Interrupters, Types QO, QOB, Series 1, single pole rated 15A and 20A.

Circuit Breakers also Arc Fault Circuit Interrupter, Types HOM, CHOM, Series 1.

SIEMENS INDUSTRY INC

E82615

5400 TRIANGLE PKY NW, NORCROSS GA 30092

Branch/feeder-type AFCI, Models QAF, BAF, BQAF, MP-AT, QAFH, BAFH, BQAFH, MP-HAT.

Branch/feeder-type AFCI, Models QAF, BAF, MP-AT, QAFH, BAFH, MP-HAT.

Branch/feeder-type AFCI, Models QAF, BAF, MP-AT, QAFH, BAFH, MP-HAT.

% - Complementary Listed as DIVQ under E82615.

ARC-FAULT CIRCUIT INTERRUPTERS, COMBINATION TYPE (AWAH)

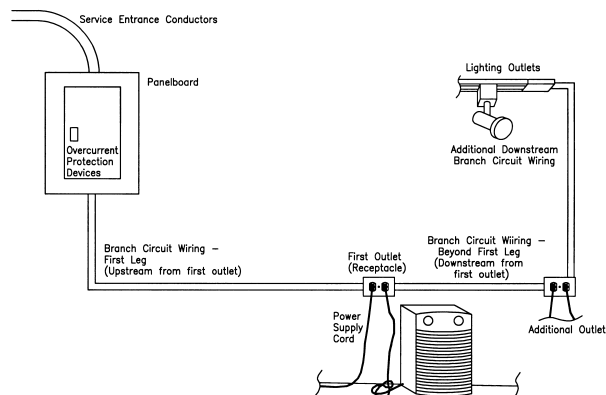
USE

This category covers arc-fault circuit interrupters that comply with the requirements for both branch/feeder-type AFCIs (see AVZQ) and outlet-circuit-type AFCIs (see AWCG). They are intended to provide protection of the branch-circuit wiring, feeder wiring, or both, and cord sets and power-supply cords connected to receptacles against the unwanted effects of arcing.

These devices may be self-contained with an enclosure, separate devices intended to be mounted in an enclosure or outlet box, or integrated as part of another device, such as a circuit breaker or outlet receptacle.

PROTECTION PROVIDED

The following branch-circuit diagram and arc-fault protection table illustrate the protection provided by a combination AFCI under various arc-fault scenarios.



Arc-fault Scenario	Protection Provided
Branch-circuit Wiring	
Parallel Arcing Detection	Y
Series Arcing Detection (With Ground)	Y
Series Arcing Detection Without Ground (#)	Y
Cord Sets (Extension Cords), Power-supply Cords	
Parallel Arcing Detection	Y
Series Arcing Detection	Y

Notes

- Y – Arc-fault protection provided
- (#) – Branch-circuit wiring systems without ground were permitted prior to the 1962 NEC
- Parallel arcing detection includes arcing line-to-line and line-to-ground
- Combination AFCIs located at other than the origin of the branch circuit do not protect upstream branch-circuit wiring, cord sets or power-supply cords

RATINGS

These devices are rated 15 or 20 A, 120 V or 120/240 V.

PRODUCT MARKINGS

Combination-type AFCIs are marked “Combination Type Arc-Fault Circuit-Interrupter” or “Combination Type AFCI” where visible, with a dead-front or faceplate removed, while the device is installed.

ADDITIONAL INFORMATION

For additional information, see Arc-fault Circuit Interrupters (AVYI) and Electrical Equipment for Use in Ordinary Locations (AALZ).

REQUIREMENTS

The basic standard used to investigate products in this category is ANSI/UL 1699, “Arc-Fault Circuit-Interrupters.”

UL MARK

The Listing Mark of UL on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Listing Mark for these products includes the UL symbol (as illustrated in the Introduction of this Directory) together with the word “LISTED,” a control number, and the product name “Combination Arc Fault Circuit Interrupter” (or “Combination AFCI”).

UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. UL shall not incur any obligation or liability for any loss, expense or damages, including incidental or consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guide Information.

EATON**E7819**

1000 CHERRINGTON PKY, MOON TOWNSHIP PA 15108

Molded-case circuit breaker with combination-type AFCI, Type CH with suffix CAF and CAFA or Type CH with a prefix of FCAF. Type BR with suffix CAF and CAFA.

Molded-case circuit breakers with arc fault circuit interrupters, Type BR/QB, with prefixes: BRCAF/BRHCAF/BRACAF/BRAHCAF/QBCAF/QBHCAF/QBACAF/QBAHCAF.

Molded case circuit breakers with combination arc fault circuit protection, Type CH, with Prefix CHCAF & CHHCAF.

Molded-case circuit breakers, combination with arc fault circuit interrupters, Type CH with prefix CHCAF.

Molded-case circuit breakers, combination with arc fault circuit interrupters, Type BR with prefix BRCAF.

Molded case circuit breakers with arc fault circuit interrupters: Combination, Plug-On-Neutral, Type CH, followed by F with prefix CAFPN.

GENERAL ELECTRIC CO**E11592**

41 WOODFORD AVE, PLAINVILLE CT 06062

Circuit breaker and combination-type AFCI, Types THQL-AF, THHQL-AF, THQB-AF, THHQB-AF, TXQL-AF, TXQB-AF, THQL1115AF2 MOD 3, THQL1120AF2 MOD 3, THQB1115AF2 MOD 3, THQB1120AF2 MOD 3, THHQL1115AF2 MOD 3, THHQL1120AF2 MOD 3, THHQB1115AF2 MOD 3, THHQB1120AF2 MOD 3, TXQL1115AF2 MOD 3, TXQL1120AF2 MOD 3, TXQB1115AF2 MOD 3, TXQB1120AF2 MOD 3.

Combination-type AFCI, Types THQLAF2, THHQLAF2.

SCHNEIDER ELECTRIC USA INC / SQUARE D CO**E84967**

1010 AIRPARK CENTER DR, NASHVILLE TN 37217

Combination-type AFCI, Cat. No. QO/QOB-CAFI.

Cat. No. HOM-CAFI.

SIEMENS INDUSTRY INC**E82615**

5400 TRIANGLE PKY NW, NORCROSS GA 30092

Combination-type AFCI, Type LEI.

Types QAF, BAF, MP-AT, QAFH, BAFH, MP-HAT.

ARC-FAULT CIRCUIT INTERRUPTERS, CORD TYPE (AWAY)**USE**

This category covers arc-fault circuit interrupters (AFCI) intended to be connected to a receptacle outlet.

These devices are intended to provide protection to the power-supply cord connected to it against the unwanted effects of arcing. The cord may be integral to the device. The device has no additional outlets.

RATINGS

These devices are rated 30 A maximum, 120 V or 120/240 V.

ADDITIONAL INFORMATION

For additional information, see Arc-fault Circuit Interrupters (AVYI) and Electrical Equipment for Use in Ordinary Locations (AALZ).

REQUIREMENTS

The basic standard used to investigate products in this category is ANSI/UL 1699, “Arc-Fault Circuit-Interrupters.”

UL MARK

The Listing Mark of UL on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Listing Mark for these products includes the UL symbol (as illustrated in the Introduction of this Directory) together with the word “LISTED,” a control number, and the product name “Cord Arc Fault Circuit Interrupter” (or “Cord AFCI”).

Documents
Document Sharing Hub

Arc-fault Circuit Interrupters, Cord Type (AWAY)–Continued

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NINGBO XIYU ELECTRONICS DEVELOPMENT CO LTD**E252489**

QIATOU INDUSTRY ZONE 6 DEVELOPMENT RD CIXI CITY,
NINGBO, ZHEJIANG 315317 CHINA

Cord-type AFCI, Cat. Nos. XY-12010A, XY-12013A, XY-12015A.
Cat. Nos. XY-24015A, XY-24020A, XY-24030A.

ARC-FAULT CIRCUIT INTERRUPTERS, OUTLET BRANCH CIRCUIT TYPE (AWBZ)**USE AND INSTALLATION**

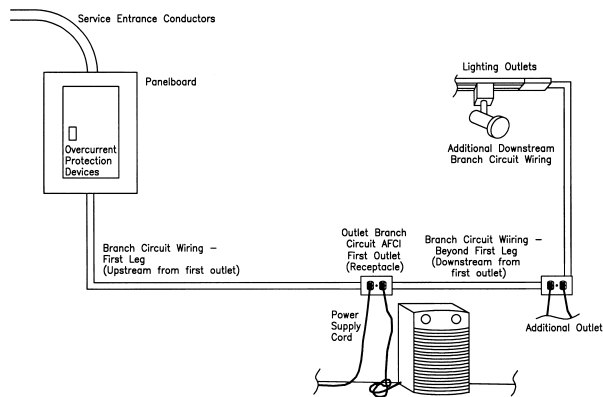
This category covers arc-fault circuit interrupters that have been investigated to provide protection of the downstream branch-circuit wiring, cord sets and power-supply cords against the unwanted effects of arcing. These devices also provide protection to upstream branch-circuit wiring as shown below.

These devices have feed-through connections.

These devices are intended to be installed as the first outlet in a branch circuit.

PROTECTION PROVIDED

The following branch-circuit diagram and arc-fault protection table illustrate the protection provided by an outlet branch-circuit AFCI under various arc-fault scenarios.

**Arc-fault Scenario****Branch-circuit Wiring – First Leg**

Parallel Arcing Detection
Series Arcing Detection (With Ground)
Series Arcing Detection Without Ground (#)

Protection Provided

N
Y
Y

Branch-circuit Wiring – Beyond First Leg

Parallel Arcing Detection
Series Arcing Detection (With Ground)
Series Arcing Detection Without Ground (#)

Y
Y
Y

Cord Sets (Extension Cords), Power-supply Cords

Parallel Arcing Detection
Series Arcing Detection

Y
Y

Notes

- Y - Arc-fault protection provided
- N - Arc-fault protection not provided
- (#) - Branch-circuit wiring systems without ground were permitted prior to the 1962 NEC
- Parallel arcing detection includes arcing line-to-line and line-to-ground

RATINGS

These devices are rated 15 or 20 A, 120 V.

ADDITIONAL INFORMATION

For additional information, see Arc-fault Circuit Interrupters (AVYI) and Electrical Equipment for Use in Ordinary Locations (AALZ).

REQUIREMENTS

The basic requirements used to investigate products in this category are contained in UL Subject 1699A, "Outline of Investigation for Outlet Branch Circuit AFCIs."

UL MARK

The Listing Mark of UL on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Listing Mark for these products includes the UL symbol (as illustrated in the Introduction of this Directory) together with the word "LISTED," a control number, and the product name "Outlet Branch Circuit Arc Fault Circuit Interrupter" (or "Outlet Branch Circuit AFCI").

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COOPER WIRING DEVICES

203 COOPER CIR, PEACHTREE CITY GA 30269

Outlet-branch-circuit-type AFCI, Cat. Nos. AFCI-15, AFCI-20; may be prefixed or suffixed with letters or numbers to denote colors or packaging variation.

E341748

Documents
Document Sharing Hub

Arc-fault Circuit Interrupters, Outlet Branch Circuit Type (AWBZ)–Continued

Outlet-branch-circuit-type AFCI, tamper resistant, Cat. Nos. TRAFCI-15, TRAFCI-20.
Outlet-branch-circuit-type AFCI, weather resistant, Cat. Nos. WRAFCI-15, WRAFCI-20.
Outlet-branch-circuit-type AFCI, tamper resistant and weather resistant, Cat. Nos. TWRAFCI-15, TWRAFCI-20.

LEVITON MFG CO INC**E342815**

201 N SERVICE RD, MELVILLE NY 11747

Outlet-branch-circuit-type AFCI, Cat. Nos. AFNT1, AFNT2; followed by up to three alphanumeric suffixes that represent variations in color.
Outlet-branch-circuit-type AFCI, tamper resistant, Cat. Nos. AFTR1, AFTR2; followed by up to three alphanumeric suffixes that represent variations in color.

Outlet-branch-circuit-type AFCI, weather resistant, Cat. Nos. AFWR1, AFWR2; followed by up to three alphanumeric suffixes that represent variations in color.

Outlet-branch-circuit-type AFCI, tamper resistant and weather resistant, Cat. Nos. AFTW1, AFTW2; followed by up to three alphanumeric suffixes that represent variations in color.

Outlet-branch-circuit-type AFCI, hospital grade, Cat. Nos. AFNT1-HG, AFNT1-HG; followed by up to three alphanumeric suffixes that represent variations in color.

Outlet-branch-circuit-type AFCI, tamper resistant and hospital grade, Cat. Nos. AFTR1-HG, AFTR2-HG; followed by up to three alphanumeric suffixes that represent variations in color.

Outlet-branch-circuit-type AFCI, blank face, Cat. Nos. AFBF2; followed by up to three alphanumeric suffixes that represent variations in color.

ARCHITECTURAL AND FLOATING FOUNTAINS (AWEG)**USE AND INSTALLATION**

This category covers electrical equipment systems intended for installation in accordance with Article 680 (Part V) and Article 682 of ANSI/NFPA 70, "National Electrical Code." Equipment may consist of pumps (including submersible pumps), lights, control panels, and timers. Equipment may also include wind sensors, light detectors, freeze prevention equipment, and the like. These systems may be submersible or intended for remote installation. Systems suitable for outdoor use are so marked.

RELATED PRODUCTS

Similar portable equipment is covered under Fountains, Small Decorative (IQRW).

Control panels for use with equipment intended for water-play fountains and water playground areas, swimming pools and spas, or fountains with water in common with swimming pools are covered under Controls (WAWU).

ADDITIONAL INFORMATION

For additional information, see Electrical Equipment for Use in Ordinary Locations (AALZ).

REQUIREMENTS

The basic standards used to investigate products in this category are ANSI/UL 778, "Motor-Operated Water Pumps," UL 676, "Underwater Lighting Fixtures," and UL 508A, "Industrial Control Panels."

UL MARK

The Listing Mark of UL on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Listing Mark for these products includes the UL symbol (as illustrated in the Introduction of this Directory) together with the word "LISTED," a control number, and the product name "Architectural Fountain," "Floating Fountain" or "Floating Fountain Equipment," or other appropriate product name as shown in the individual Listings.

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AQUILITY SYSTEMS INC**E335512**

6949 SW 21ST LN, GAINESVILLE FL 32607

Ponds and architectural fountains, Water level control systems.

FOUNTAIN PEOPLE INC**E200141**

4600 HWY 123, SAN MARCOS TX 78666

Architectural fountains.

GEO GLOBAL PARTNERS**E338997**

SUITE A 1727 OLD OKEECHOBEE RD, WEST PALM BEACH FL 33409

Floating UV Filter Systems for Ponds.

HALL FOUNTAINS INC**E184529**

5500 NW 22ND AVE, FT LAUDERDALE FL 33309

Architectural fountains, Floating fountains.

OASE PUMPS INC**E192236**

845 PALM DRIVE, HERMOSA BEACH CA 90254

Floating fountain equipment.

WALTZING WATER INC**E185321**

1410 SE 10TH ST, CAPE CORAL FL 33990

Architectural fountains.

WESCO FOUNTAINS INC**E121686**

3440 TECHNOLOGY DR, NOKOMIS FL 34275

Floating fountains.

ARMORED CABLE (AWEZ)**GENERAL**

This category covers armored cable in sizes 14–1 AWG copper and 12–1 AWG aluminum or copper-clad aluminum and rated 600 V or less. Aluminum-armored cable is suitable for use in alternating current circuits only. Armored cable is for use in accordance with Article 320 of ANSI/NFPA 70, "National Electrical Code."

ACTH — Indicates armored cable rated 75°C employing conductors having thermoplastic insulation.

ACTHH — Indicates armored cable rated 90°C employing conductors having thermoplastic insulation.

ACHH — Indicates armored cable rated 90°C employing conductors having thermosetting insulation.

Armored cable connectors (box connectors) other than the direct bearing setscrew type are suitable for use on cable employing aluminum armor.

For conductor termination information, see Electrical Equipment for Use in Ordinary Locations (AALZ).

PRODUCT MARKINGS

Armored cable complies with the Flame and Limited Smoke Test requirements specified in UL 1685, "Vertical-Tray Fire-Propagation and Smoke-Release Test for Electrical and Optical-Fiber Cables" and may be marked with the suffix "LS" and/or "For Use in Cable Trays."

Cable with aluminum armor is identified with the words "ALUMINUM ARMOR" on a marker tape and tag on coils.

Cable with copper-clad aluminum conductors is identified with the designation "AL (CU-CLAD)" or "Cu-Clad Al." on a tag, on the carton or reel. Cable with aluminum conductors is identified with the designation "AL" on a tag, on the carton or reel.

In addition, cable with compact-stranded copper conductors is identified with the designation "Compact Copper" or "CMPCT CU" following the conductor size and the words "Terminate with connectors identified for use with compact-stranded copper conductors" on a tag, on the carton or reel.

RELATED PRODUCTS

For fittings suitable as a grounding means, see Armored Cable Connectors (AWSX).

ADDITIONAL INFORMATION

For additional information, see Electrical Equipment for Use in Ordinary Locations (AALZ).

REQUIREMENTS

The basic standard used to investigate products in this category is ANSI/UL 4, "Armored Cable."

UL MARK

The Listing Mark of UL on the attached tag, the reel or the smallest unit container in which the product is packaged with or without the UL symbol on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Listing Mark for these products includes the UL symbol (as illustrated in the Introduction of this Directory) together with the word "LISTED," a control number, and the product name as appropriate: Armored cable that contains copper or copper-clad aluminum conductors has the product name "Armored Cable"; armored cable that contains aluminum conductors has the product name "Armored Aluminum Cable." Armored cable that has aluminum armor has the product name "Aluminum Armored Cable."

UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. UL shall not incur any obligation or liability for any loss, expense or damages, including incidental or consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guide Information.

AFC CABLE SYSTEMS INC 960 FLAHERTY DR, NEW BEDFORD MA 02745	E7330
BELDEN WIRE & CABLE CO 2200 US HWY 27 S, RICHMOND IN 47374	E199639
CONDUCTORES MONTERREY S A DE C V PLANTA SAN LUIS EJE 122 NO 305 ZONA INDUSTRIAL 78395, SAN LUIS POTOSI, SLP MEXICO	E125375
ELECTRI-FLEX CO 222 W CENTRAL AVE PO BOX 72260, ROSELLE IL 60172	E156054
ENCORE WIRE CORP 1324 MILLWOOD RD PO BOX 1149, MCKINNEY TX 75069	E306553
FRANCIS CABLE SYSTEMS UNIT 430 687 PROSPECT ST, LAKEWOOD NJ 08701	E161112
KAF-TECH INC 272 DUCHAINE BLVD, NEW BEDFORD MA 02745	E137685
LITE BRITE MFG CO INC 608 UNION ST, BROOKLYN NY 11215	E210724
NEXANS CANADA INC 140 ALLSTATE PKY, MARKHAM, ON L3R 0Z7 CANADA	E189080
NORTHERN CABLES INC 50 CALIFORNIA AVE PO BOX 1564, BROCKVILLE, ON K6V 6E6 CANADA	E208790
SOUTHWIRE CO 1 SOUTHWIRE DR, CARROLLTON GA 30119	E203538
TAIHAN ELECTRIC WIRE CO LTD 194-15 1-KA HOEHYUN-DONG CHUNG-KU CPO BOX 2624, SEOUL REPUBLIC OF KOREA	E111455

Armored Cable Connectors, Type AC (AWSX)—Continued

This category covers armored cable connectors suitable for use with armored cable (Type AC). These connectors are intended for installation and use in accordance with the following information and the limitations specified in Armored Cable (AWEZ).

The individual Listings for each connector used with nonmetallic-sheathed cable may have details about the size and number of the nonmetallic-sheathed cable it will secure.

All male threaded fittings have only been investigated for use with locknuts.

Additional Fittings — Connectors covered under Metal-clad Cable Connectors, Type MC (PJOX) and Power and Control Tray Cable Connectors (QPOZ) are also suitable for use with armored cable when specifically indicated on the device or carton. Temporary wiring, such as flexible cable or cord, may be secured by the use of a connector suitable for use with flexible cord.

Grounding — Armored cable connectors (Type AC) are considered suitable for grounding for use in circuits over and under 250 V and where installed in accordance with the NEC.

Size of Cable Used — Connectors of the 1/2 trade size, unless marked otherwise, are capable of holding 14–2 AWG armored cable and any larger size which it will accommodate.

Use with Aluminum Cable — Connectors other than direct-bearing set-screw type are suitable for use with aluminum-armored cable.

MARKINGS

Some connectors are also acceptable for use with flexible metal conduit, flexible cord, nonmetallic-sheathed cable, metal-clad (Type MC) cable, service-entrance cable, flexible nonmetallic tubing, or armored optical fiber cable as indicated on the device or carton. Connectors for use with nonmetallic-sheathed cable are also suitable for use with multiconductor underground feeder and branch-circuit cable where used in dry locations. Unless marked otherwise on the carton, the connectors are suitable for connection of only one cable per cable entry.

ADDITIONAL INFORMATION

For additional information, see Armored Cable (AWEZ) and Electrical Equipment for Use in Ordinary Locations (AALZ).

REQUIREMENTS

The basic standard used to investigate products in this category is ANSI/UL 514B, "Conduit, Tubing, and Cable Fittings."

UL MARK

The UL symbol on the product and the Listing Mark of UL on the smallest unit container in which the product is packaged is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Listing Mark for these products includes the UL symbol (as illustrated in the Introduction of this Directory) together with the word "LISTED," a control number, and the product name "Armored Cable Connector."

UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. UL shall not incur any obligation or liability for any loss, expense or damages, including incidental or consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guide Information.

AFC CABLE SYSTEMS INC 960 FLAHERTY DR, NEW BEDFORD MA 02745	E164166
ALL CURRENT ELECTRICAL SALES INC 1599 ADMIRAL WILSON BLVD, CAMDEN NJ 08109-3905	E325053
APPLETON ELECTRIC L L C 9377 W HIGGINS RD, ROSEMONT IL 60018	E14813
ARLINGTON INDUSTRIES INC 1 STAUFFER INDUSTRIAL PARK, SCRANTON PA 18517	E18304
ARTMARK PRODUCTS CORP 11315 NW 36TH TER, MIAMI FL 33178	E328238
BRIDGEPORT FITTINGS INC 705 LORDSHIP BLVD, STRATFORD CT 06615	E20534
CHANGZHOU YINLEI ELECTRONIC CO LTD 116 NORTH MIAOQIAN RD MIAOQIAO TOWN, WUJIN, JIANGSU 213167 CHINA	E315258
CITY ELECTRIC SUPPLY, DBA STATES ELECTRIC SUPPLY 4909 W KNOLLWOOD ST, TAMPA FL 33634	E352565
COOPER CROUSE-HINDS WOLF & 7TH NORTH ST PO BOX 4999, SYRACUSE NY 13221	E19188
EMCO ELECTRIC INTERNATIONAL 15656 PINEWOOD DR, STRONGSVILLE OH 44149	E232666
FLEXOTEK INC 425 STANLEY AVE, BROOKLYN NY 11207	E330505
FORTUNE INDUSTRIES INTERNATIONAL INC SUITE 101 6405 S 209TH ST, KENT WA 98032	E216785
FUZHOU JJ INDUSTRIES INC 2 WANGFENG RD YIXU MACHINERY & ELECTRONICS PARK CANGSHAN DISTRICT, FUZHOU, FUJIAN 350026 CHINA	E317577
HALEX CO, DIV OF SCOTT FETZER CO 23901 AURORA RD, BEDFORD HEIGHTS OH 44146	E23951
MADISON ELECTRIC PRODUCTS INC 26401 FARGO AVE, BEDFORD HEIGHTS OH 44146	E52213



Armored Cable Connectors, Type AC (AWSX)—Continued

NEER 9377 W HIGGINS RD, ROSEMONT IL 60018	E25014
NESCO 216 WILKINSON RD, BRAMPTON, ON L6T 4M4 CANADA	E331589
O-Z/GEDNEY L L C 9377 W HIGGINS RD, ROSEMONT IL 60018	E11852
PRODUCTO ELECTRIC CORP 11 KINGS HWY, ORANGEBURG NY 10962	E26103
RACO 3902 W SAMPLE ST PO BOX 4002, SOUTH BEND IN 46634	E195966
RACO 3902 W SAMPLE ST PO BOX 4002, SOUTH BEND IN 46634	E195969
RELIABLE ELECTRICAL SUPPLY INC STE 125 2545 HEMPSTEAD TURNPIKE, EAST MEADOWS NY 11554	E326790
SAGE METALS LTD 346 PLOT FUNCTIONAL INDUSTRIAL ESTATE 346 PATPARGANJ, DELHI, DL 110092 INDIA	E311156
SIGMA ELECTRIC MFG CORP 120 SIGMA DR, GARNER NC 27529	E155411
SOURCE ELECTRICAL PRODUCTS L L C 431 DAUPHINE ST, NEW ORLEANS LA 70112	E335906
STEEL COMPONENTS INC BAY 1 4701 JOHNSON RD, COCONUT CREEK FL 33073	E238299
STEEL ELECTRIC PRODUCTS CO INC 6301 NEW UTRECHT AVE, BROOKLYN NY 11219	E309514
SUPERFLEX LTD 152 44TH ST, BROOKLYN NY 11232	E316174
THOMAS & BETTS CORP 8155 T & B BLVD, MEMPHIS TN 38125	E1383
TOPAZ ELECTRIC CORP 925 WAVERLY AVE, HOLTSVILLE NY 11742	E18176

ATTACHMENT PLUGS (AXGV)

GENERAL

This category covers the following types of products:

Adapter — A device that adapts one blade or slot configuration to another (including a grounding adapter for a nongrounding receptacle), adapts a receptacle to a lampholder, or adapts a lampholder to a receptacle (also known as a separable attachment plug). (See EMDV for similar products.)

Appliance Coupler — A single-outlet female contact device to be wired on flexible cord as part of a detachable power-supply cord to be connected to a male inlet of an appliance.

Appliance or Flatiron Plug — An appliance coupler type of device having a slot configuration specified for use with heating or cooking appliances.

Attachment Plug — A male contact device for the temporary connection of a flexible cord or cable to a receptacle, cord connector, or other female outlet device.

Cord Connector — A female contact device to be wired on flexible cord for use as an extension from an outlet to make a detachable electrical connection to an attachment plug or, as an appliance coupler, to an equipment inlet.

Male Inlet (Equipment Inlet, Motor Attachment Plug) — A male contact device to be mounted on utilization equipment to provide a detachable electrical connection to an appliance coupler or cord connector.

Nonseparable Attachment Plug — An adapter having a male screw shell and a pair of wire leads to be connected to utilization equipment.

Separable Attachment Plug — An adapter having a male screw shell and a slot configuration outlet.

Shore Power Inlet — A male inlet intended to provide power-supply connection to boats moored to a dock. Shore power inlets are also covered under Shore Power Inlets, Marine (UBXR).

Table Tap — A cord connector having more than one outlet and intended to rest on a horizontal surface while in use.

This category does not cover devices to be molded on flexible cord or wire and unassembled devices to be factory assembled on flexible cord or wire. Such devices are complete only after installation of the flexible cord or wire and they are judged as part of a complete assembly.

Ratings

These devices are rated 600 V or less, ac or dc, and 200 A or less. They may also be rated in horsepower as noted in the individual product categories.

Outlet devices rated 250 V are tested on circuits involving a nominal potential to ground of 125 V. Outlet devices having other voltage ratings are tested on circuits involving full-rated potential to ground, except for multiphase-rated devices, which are tested on circuits consistent with their voltage ratings, i.e., a 120/208 V, 3-phase, device is tested on a circuit involving 120 V to ground.

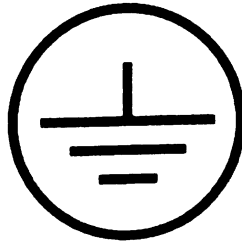
Terminals

The terminations of devices intended to be wired to flexible cord are based on the use of flexible cord or cable having copper conductors, in accordance with Article 400 of ANSI/NFPA 70, "National Electrical Code" (NEC). The ampacity of flexible cord and cable is based on Section 400.5, Tables 400.5(A) and 400.5(B). The conductors are sized as specified on the product or in the manufacturer's instructions provided with the device. The terminations are based on the use of 60°C flexible cord or cable.

The terminations of devices intended to be wired onto branch-circuit conductors are based upon the use of 60°C insulated conductors in circuits rated 100 A or less, and the use of 75°C insulated conductors in circuits rated more than 100 A, as specified in Table 310.16 of the NEC.

Grounding

Devices having a terminal identified by a green-colored finish, the words "green" or "ground," the letters "G" or "GR," or the ground-ing symbol are grounding types. The blade, pin or contact number connected to this terminal is for equipment grounding only.



Enclosures

In general, devices having integral enclosures or installed as intended have been investigated for use indoors, in dry locations. All such Listed products provide a degree of protection against ordinary corrosion, accidental contact with live parts, and a limited amount of fall-ing dirt. Some devices have been investigated for use in other operating environments when unmated and when mated with other devices in the same manufacturer's line of products. They are marked with one of the type designations 2 through 6, 12 and 13 indicated in Electrical Equipment for Use in Ordinary Locations (AALZ). All outdoor types provide a degree of protection against rain, snow, and sleet. Outdoor types are also suitable for use indoors if they meet the environmental conditions present. A device that complies with the requirements for more than one type of enclosure may be marked with multiple designations. Complete use and mating information is provided in the installation instructions provided with each device.

RELATED PRODUCTS

This category does not cover pin-and-sleeve-type devices; refer to Pin-and-Sleeve-type Plugs, Receptacles and Cable Connectors (QLGD).

UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. UL shall not incur any obligation or liability for any loss, expense or damages, including incidental or consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guide Information.

ATTACHMENT PLUGS, FUSELESS (AXUT)

GENERAL

This category covers adapters, appliance couplers, appliance and flatiron plugs, attachment plugs, cord connectors, male inlets (equip-ment inlets, motor attachment plugs), nonseparable attachment plugs, separable attachment plugs, shore power inlets and table taps. These devices do not incorporate switches or overcurrent protection.

Devices for Use in Hospitals — Attachment plugs and cord connectors Listed for hospital use in other than hazardous locations in accordance with Article 517 of ANSI/NFPA 70, "National Electrical Code," are identified by (1) the marking "Hospital Only" (used to identify a specific grounding locking configuration rated 20 A, 125 V, used for the connection of mobile x-ray and similar equipment), or (2) the marking "Hospital Grade," and a green dot on the device. Male inlets may be identified only by the marking "Hospital Only." The identification is visible after installation on the flexible cord or, in the case of the male inlets, on the utilization equipment.

Federal Specification — Some Listed attachment plugs, cord connectors and male inlets in this category have been investigated for compliance with Federal Specification W-C-596, "General Specification for Electrical Power Connectors." Such devices are identified by a Listing Mark augmented by the capital letters "F" and "S," each in a wing on either side of the UL Mark. The manufacturer may also include the Federal Specification number "W-C-596F" or "W-C-596G," or the Federal Specification part number (which consists of the appropriate specification sheet and dash number described in the specification) on the device or on the smallest container in which the device is packaged.

Terminals — Terminals of appliance couplers, appliance and flatiron plugs, attachment plugs, cord connectors and table taps are intended for use with stranded copper conductors of the type used in flexible cord. Terminals of male inlets (motor attachment plugs) and shore-power inlets of the wire-binding screw, setscrew, or screw-actuated back-wired clamping types are suitable for use with both solid and stranded wire.

Horsepower Ratings — In addition to ampere and voltage ratings, standard ac horsepower ratings corresponding to the amp and volt-age ratings assigned to specific attachment plugs not incorporating overcurrent protection or a switch are given in the table below. For a Design E motor rated more than 2 horsepower, it is necessary to use an attachment plug having a horsepower rating not less than 1.4 times the standard ac horsepower rating. The NEMA configuration designation is included for reference. Devices other than attachment plugs, and attachment plugs of configurations other than those indicated in the table, have horsepower ratings only if such ratings are marked on the device.

Horsepower Ratings for NEMA Configuration Attachment Plugs

Amps Rating	AC V Rating	No. of Phase	No. of Poles	No. of Wire	NEMA Dsg	HP Rating
15	125	1	2	2	1-15, L1-15	1/2
	125	1	2	3	5-15, L5-15	1/2
	250	1	2	2	2-15	1-1/2#
	250	1	2	3	6-15, L6-15	1-1/2#
	277	1	2	3	7-15, L7-15	2
	125/250	1	3	4	14-15	1-1/2 L-L#, 1/2 L-N
	250	3	3	3	11-15, L11-15	2
	250	3	3	4	15-15	2
	120/208	3	4	4	16-15	2



Attachment Plugs, Fuseless (AXUT)–Continued

Amps Rating	AC V Rating	No. of Phase	No. of Poles	No. of Wire	NEMA Dsg	HP Rating
20	125	1	2	3	5-20, L5-20	1
	250	1	2	2	2-20, L2-20	2#
	250	1	2	3	6-20, L6-20	2#
	277	1	2	3	7-20, L7-20	2
	480	1	2	3	L8-20	3
	125/250	1	3	3	10-20, L10-20	2 L-L#, 1 L-N
	125/250	1	3	4	14-20, L14-20	2 L-L#, 1 L-N
	250	3	3	3	11-20, L11-20	3
	250	3	3	4	15-20, L15-20	3
	480	3	3	3	L12-20	5
20	480	3	3	4	L16-20	5
	120/208	3	4	4	18-20, L18-20	2
	120/208	3	4	5	L21-20	2
	277/480	3	4	4	L19-20	5
	277/480	3	4	5	L22-20	5
	125	1	2	3	5-30, L5-30	2
	250	1	2	2	2-30	2#
	250	1	2	3	6-30, L6-30	2#
	277	1	2	3	7-30, L7-30	3
	480	1	2	3	L8-30	5
30	125/250	1	3	3	10-30, L10-30	2 L-L#, 2 L-N
	125/250	1	3	4	14-30, L14-30	2 L-L#, 2 L-N
	250	3	3	3	11-30, L11-30	3
	250	3	3	4	15-30, L15-30	3
	480	3	3	3	L12-30	10
	480	3	3	4	L16-30	10
	120/208	3	4	4	18-30, L18-30	3
	120/208	3	4	5	L21-30	3
	277/480	3	4	4	L19-30	10
	277/480	3	4	5	L22-30	10
50	125	1	2	3	5-50	2
	250	1	2	3	6-50	3#
	277	1	2	3	7-50	5
	125/250	1	3	3	10-50	3 L-L#, 2 L-N
	125/250	1	3	4	14-50	3 L-L#, 2 L-N
	250	3	3	3	11-50	7-1/2
	250	3	3	4	15-50	7-1/2
	120/208	3	4	4	18-50	7-1/2
	125/250	1	3	4	14-60	3 L-L#, 2 L-N
	250	3	3	4	15-60	10
60	120/208	3	4	4	18-60	7-1/2

L-L: Motor connected line-to-line

L-N: Motor connected line-to-neutral

Also suitable for 208 V motor applications at the indicated horsepower rating

For three-phase devices, the horsepower ratings indicated are for three-phase motor loads.

Refer to ANSI/NEMA WD6 (2002) for configurations of the NEMA designations.

ADDITIONAL INFORMATION

For additional information, see Attachment Plugs (AXGV) and Electrical Equipment for Use in Ordinary Locations (AALZ).

REQUIREMENTS

The basic standard used to investigate products in this category is ANSI/UL 498, "Attachment Plugs and Receptacles."

UL MARK

The Listing Mark of UL on the product, or the UL symbol on the product and the Listing Mark on the smallest unit container in which the product is packaged, is the only method provided by UL to identify products manufactured under its Listing and Follow-Up service. The Listing Mark for these products includes the UL symbol (as illustrated in the Introduction of this Directory) together with the word "LISTED," a control number, and the product name "Fuseless Attachment Plug" or "Plug," or other appropriate product name as shown in the individual Listings.

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ACTUANT ELECTRICAL, DBA MARINCO**E57672**

N85 W12545 WESTBROOK CROSSING, MENOMONEE FALLS WI

53051

Appliance couplers, Attachment plug caps, Cord connector bodies, Motor attachment caps, Cord connectors, Attachment plugs, Hospital grades, Flanged inlet, 3-Wire, Shore power inlets.

AMERICAN DE-ROSA LAMPARTS INC**E304254**

1945 TUBEWAY AVE, CITY OF COMMERCE CA 90040

Attachment plug caps.

AMERICAN DENKI CO LTD**E341299**

41-16 KITAMINE-MACHI OHTA-KU, TOKYO 145-0073 JAPAN

Attachment plugs.

BRYANT HUBBELL INC (DELAWARE)**E1381**

40 WATERVIEW DR, SHELTON CT 06484

Angle cover adapters, Attachment plugs, Attachment plug caps, Cord connectors, Cord connector bodies, Mesh grips, Molded vinyls, Motor attachment plugs, Angle cover adapters, Weather protective boots.

CENTRAL PURCHASING L L C, DBA HARBOR FREIGHT**TOOLS**

26541 AGOURA RD, CALABASAS CA 91301

Attachment Plugs, Fuseless (AXUT)–Continued

Attachment plugs, Cord connectors.

CITY ELECTRIC SUPPLY 660 NW PEACOCK DR, PORT ST LUCIE FL 34986 Attachment plugs, Cord connectors.	E328839
COOPER CROUSE-HINDS WOLF & 7TH NORTH ST PO BOX 4999, SYRACUSE NY 13221 Cord connectors.	E242778
COOPER INTERCONNECT - SALEM 23 FRONT ST, SALEM NJ 08079 Cord connectors, Motor attachment plugs.	E116778
COOPER WIRING DEVICES 203 COOPER CIR, PEACHTREE CITY GA 30269 Adapters, Attachment plugs, Attachment plugs hospital grade, Cord connectors, Cord connector hospital grade, Flatiron and appliance plugs, Motor attachment plugs, Separable attachment plugs.	E15012
COOPER WIRING DEVICES 203 COOPER CIR, PEACHTREE CITY GA 30269 Adapters, Attachment plugs, Cord connectors, Motor attachment plugs.	E3663
DANIEL WOODHEAD CO SUITE 200 333 KNIGHTSBRIDGE PKY, LINCOLNSHIRE IL 60069 Adapters, Appliance inlets, Attachment plugs, Cord connectors.	E10176
DELTA ELECTRONICS INC 252 SHANG YING RD KUEI SHAN, TAOYUAN HSIEN 333 TAIWAN Appliance inlets.	E97653
DO IT BEST CORP NELSON RD PO BOX 868, FT WAYNE IN 46801 Attachment plugs, Cord connectors.	E88056
EICHHOFF KONDENSATOREN GMBH HEIDGRABEN 4 36110, SCHLITZ GERMANY Motor attachment caps.	E60513
ERICSON MFG CO 4215 HAMANN PKY, WILLOUGHBY OH 44094 Attachment plugs, Cord connector bodies.	E17740
EVER ISLAND ELECTRIC CO LTD 1 YIHENG RD PUXIN, BULONG INDUSTRIAL DISTRICT FENGANG, YANTIAN, DONGGUAN, GUANGDONG 523702 CHINA Adapters, Pin terminals.	E179046
FURRION LTD FLAT B, 6TH FL WING TAT COMMERCIAL BLDG 121-125 WING LOK ST, SHEUNG WAN HONG KONG Attachment plugs, Cord connectors.	E327290
FURUTECH INDUSTRIAL CO LTD 2ND FL 375 CHUNG SAN RD SAN CHUNG, TAIPEI HSIEN 241 TAIWAN Appliance couplers, Attachment plugs, Cord connectors.	E203878
GEHR INDUSTRIES INC 7400 E SLAUSON AVE, CITY OF COMMERCE CA 90040 Attachment plugs, Cord connectors.	E353251
GILBERT MFG CO, DIV OF LARSDALE INC 4 S MAIN, IPSWICH MA 01938 Attachment plug caps, Cord connectors.	E9166
GUANGZHOU YUADON ELECTRIC CO LTD SOUTH 5TH FL FACTORY 7-8 BEISI RD JIANGXIA VILLAGE BAIYUN DISTRICT, GUANGZHOU, GUANGDONG 510420 CHINA Attachment plugs, Cord connectors.	E350413
HUBBELL INC WIRING DEVICE DIV 40 WATERVIEW DR, SHELTON CT 06484	E1706



Attachment Plugs, Fuseless (AXUT)–Continued

Accessory shroud kits, Adapters, Adapter plates, Angle cover adapters, Attachment plugs, Attachment plugs hospital grade, Cord connectors, Cord connectors hospital grade, Motor attachment caps.

I SHENG ELECTRIC WIRE & CABLE CO LTD 52 TIN HWU RD TA GANN VILLAGE, GWAI SAN HSIAN, TAOYUAN HSIEN 333 TAIWAN Attachment plugs.	E226838
INALWAYS CORP 7TH FL 105 WUGUNG RD WUGU INDUSTRIAL DISTRICT WUGU SHIANG, TAIPEI HSIEN 24890 TAIWAN Motor attachment caps.	E94191
INTERPOWER CORP 100 INTERPOWER AVE PO BOX 115, OSKALOOSA IA 52577 Attachment plugs, Attachment plug caps, Cord connector bodies, Hospital grade, Motor attachment plugs.	E104304
JAKE TIME CO LTD 21 LN 151 SEC 2 JHONGSHAN RD SHULIN, TAIPEI HSIEN 238 TAIWAN Attachment plugs.	E252636
JASCO PRODUCTS CO L L C BLDG B 10 E MEMORIAL RD, OKLAHOMA CITY OK 73114 Cord connectors, Grounding adapters, Plugs.	E7388
JUBILANT LTD ROOM B, 17TH AV PRAIA GRANDE 369 KENG OU COMMERCIAL BLDG MACAU Attachment plugs.	E348831
KAWASAKI ELECTRIC WIRE CO LTD 1-13-3 SAKADO TAKATSU-KU, KAWASAKI-SHI, KANAGAWA 213-0012 JAPAN Motor attachment caps, Adaptors.	E35797
KEDU ELECTRIC CO LTD PUQI INDUSTRIAL ZONE C HONGQIAO, YUEQING, ZHEJIANG 325608 CHINA Attachment plugs, Cord connectors.	E347362
LEVITON MFG CO INC 201 N SERVICE RD, MELVILLE NY 11747 Attachment plugs, Attachment plugs, locking type, Cord connectors, Cord connectors, locking type, Hospital grade attachment plugs, Hospital grade cord connectors, Motor attachment plugs (male inlets)/	E13393
MCGILL 9377 W HIGGINS RD, ROSEMONT IL 60018 Attachment plug caps, Cord connectors.	E44590
MEIKOSHA CO LTD 46-8 NUKUI 4-CHOME NERIMA-KU, TOKYO 176-0021 JAPAN Attachment plugs, fuseless, hospital grades.	E88651
MIDWEST ELECTRIC PRODUCTS INC 58155 240TH ST PO BOX 910, MANKATO MN 56001 Attachment plug caps.	E33170
MULTIWAY INDUSTRIES (HK) LTD 7TH FL, UNIT 5 TEXACO RD INDUSTRIAL CENTRE 14-22 WANG LUNG ST, BLK B, TSUEN WAN HONG KONG Adapters, Cord connectors.	E175116
NICOON INDUSTRY CO LTD TOWA CORP BLDG A-10 1820 NOBORITO TAMA-KU, KAWASAKI-SHI, KANAGAWA 214-0014 JAPAN Motor attachment caps.	E69198
NINGBO LINSHENG ELECTRIC CO LTD XIAODONG INDUSTRIAL PARK, YUYAO, ZHEJIANG 315409 CHINA Attachment plugs, Cord connectors.	E300876
P T HO WAH GENTING KAWASAN BINTANG IND-II 29,29A & 30 JL BERIGJEN KATAMSO TANJUNG UNCANG, PULAU BATAM, RIAU 29422 INDONESIA	E257647



Attachment Plugs, Fuseless (AXUT)–Continued

Attachment plugs.

PACIFIC ELECTRONIC INTERNATIONAL CORP 1620-D BERRYESSA RD, SAN JOSE CA 95133 Attachment plugs.	E304118
PANASONIC CORPORATION TSU FACTORY 1668 FUJIKATA, TSU-SHI, MIE-KEN 514-8555 JAPAN Attachment plug caps.	E32807
PASS & SEYMOUR INC PO BOX 4822, SYRACUSE NY 13221 Adapters, Angle adapters, Angle plugs, Attachment plugs, Cord connectors, Hospital grade angle attachment plugs, Hospital grade attachment plugs, Hospital grade, cord connectors, Male inlets (motor attachment plugs, equipment Inlets).	E146159
PILOT INTERNATIONAL LTD ROOM 1708-09, 17/FL TOWER A, REGENT CENTRE 63 WO YI HOP RD, KWAI CHUNG, NT HONG KONG Attachment plugs.	E201779
POWER DELIVERY SYSTEMS INC 142 C MALUNIU AVE, KAILUA HI 96734 Attachment plugs, Cord connectors.	E303368
QUALTEK ELECTRONICS CORP 7610 JENTHER DR, MENTOR OH 44060 Attachment plugs, Cord connectors.	E139592
REGAL KING COMERCIAL OFFSHORE DE MACAU LTDA 8TH FL, UNIT K, CENTRO HOTLINE 335 ALAMEDA DR CARLOS D ASSUMPCAO, MACAU MACAU Attachment plugs.	E238406
RELIANCE CONTROLS CORP 2001 YOUNG CT, RACINE WI 53404 Power inlet boxes.	E181244
RELIANCE CONTROLS CORP 2001 YOUNG CT, RACINE WI 53404 Inlets, Attachment plugs.	E301321
RICH BAY CO LTD 57 TUNG HSING ST, SHU-LIN, TAIPEI HSIEN 238 TAIWAN Attachment plugs.	E184638
RONG FENG INDUSTRIAL CO LTD 180 CHENG KUNG 3RD RD, NAN TOU 540 TAIWAN Attachment plugs.	E102641
RONG KUANG ELECTRIC CO LTD #9 LANE 57 CHENG AN RD AN NAN DISTRICT, TAINAN 709 TAIWAN Attachment plugs, Cord connectors.	E237606
SAE POWER INC SUITE 1112 950 S BASCOM AVE, SAN JOSE CA 95128 Motor attachment caps.	E80990
SCHURTER AG 8-12 WERKHOFSTRASSE PO BOX 4168 CH-6002, LUZERN SWITZERLAND Attachment plugs, Cord connectors, Motor attachment caps.	E96454
SEARS ROEBUCK & CO 3333 BEVERLY RD, HOFFMAN ESTATES IL 60179 Attachment plug caps, Cord connectors.	E49796
SHANGHAI MEIQI ENVIRON MENTAL ENGINEERING CO LTD ROOM 501 #10 LANE 1158 CAOBAO RD 201102, SHANGHAI CHINA Attachment plugs, Cord connectors.	E317220
STATE TOOL & MFG CO 1650 E EMPIRE AVE, BENTON HARBOR MI 49022	



Attachment Plugs, Fuseless (AXUT)–Continued

Attachment plug caps.

STEREN ELECTRONICS INTERNATIONAL L L C SUITE 110 6260 SEQUENCE DR, SAN DIEGO CA 92121 Adapters.	E197433
SUN-LITE SOCKETS INDUSTRY INC 3 LANE 15 WANCHANG 1ST ST KUNGHSI KUEI-SHAN HSIANG, TAOYUAN HSIEN 333 TAIWAN Attachment plug caps.	E233526
SWAIN INDUSTRY CO LTD 72 TAIPING RD CHAOJHOU TOWNSHIP, PINGTUNG HISEN 920 TAIWAN Attachment plugs, Cord connectors.	E306862
THOMAS & BETTS CORP 8155 T & B BLVD, MEMPHIS TN 38125 Motor attachment plugs.	E39064
TMC ELECTRICAL PRODUCTS (SHENZHEN) CO LTD BLDG 8, 3RD NANGANG INDUSTRIAL PARK PART B, TANGTOU INDUSTRIAL ZONE SHIYAN TOWN, BAOAN DISTRICT, SHENZHEN, GUANGDONG 518001 CHINA Attachment plugs, Cord connectors, Male inlets.	E316101
U S WIRE & CABLE CORP 366 FRELINGHUYSEN AVE, NEWARK NJ 07114 Adaptors.	E113409
WAN LUNG ELECTRIC WIRE & CABLE MFG CO LTD NO 2-1 WEN HUA RD TUNG HU TSUN, KU KENG HSIANG, YUNLIN HSIEN 646 TAIWAN Appliance couplers, Attachment plugs.	E208864
WEICO (ASIA) INDUSTRIES LTD 1-2 TARSUN RD TARSUN HSIANG, SWEILIN SHANG, YUNLIN HSIEN 652 TAIWAN Attachment plug caps, Attachment plugs, Cord connectors.	E219752
WELL SHIN TECHNOLOGY CO LTD 196 XINHU 3RD NEIHU DISTRICT, TAIPEI 114 TAIWAN Adaptors, Attachment plugs, Cord connectors, Motor Attachment Plugs.	E161470
WINBO INDUSTRIES HONG KONG LTD 2ND FL, FLAT B KWAI FONG INDUSTRIAL BLDG 9-15 KWAI CHEONG RD, KWAI CHUNG N T HONG KONG Attachment plugs.	E353701
YAMATE ELECTRIC CO LTD 1-1-27 SAKURAGI, SHUNAN-SHI, YAMAGUCHI-KEN 745- 0806 JAPAN Motor attachment caps.	E92867
YON YU ELECTRIC CO LTD NO 105 ALLEY 125 LANE 318 SEC 2 AN HO RD, TAINAN 709 TAIWAN Attachment plugs, Cord connectors.	E321967
ZHANGJIAGANG KAIBAO ELECTRICAL EQUIPMENT CO LTD NO 127 FUMIN RD TANGQIAO TOWN, ZHANGJIAGANG, JIANGSU 215611 CHINA Attachment plugs.	E314240
ZHANGJIAGANG YOUCHENG TECHNOLOGY & ENGINE CO LTD 106 E RENMIN RD TANGQIAO TOWN, ZHANGJIAGANG, JIANGSU 215611 CHINA Attachment plugs.	E257757
ZING EAR ENTERPRISE CO LTD 1129 STAFFORD DR, CUPERTINO CA 95014 Assembled-on attachment plugs.	E152775



ATTACHMENT PLUGS WITH SWITCHES (AYIR)**GENERAL**

This category covers appliance couplers, appliance plugs, attachment plugs, male inlets (equipment inlets, motor attachment plugs), and flatiron plugs incorporating switches.

RELATED PRODUCTS

See Snap Switches (WJQR).

ADDITIONAL INFORMATION

For additional information, see Electrical Equipment for Use in Ordinary Locations (AALZ).

REQUIREMENTS

The basic standards used to investigate products in this category are ANSI/UL 498, "Attachment Plugs and Receptacles," and ANSI/UL 20, "General-Use Snap Switches," or ANSI/UL 1054, "Special-Use Switches," or ANSI/UL 61058-1, "Switches for Appliances – Part 1: General Requirements."

UL MARK

The Listing Mark of UL on the product, or the UL symbol stamped or molded into the product and the Listing Mark on the smallest unit packaging is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Listing Mark for these products includes the UL symbol (as illustrated in the Introduction of this Directory) together with the word "LISTED," a control number, and the product name "Switch."

In lieu of the UL symbol stamped or molded into the product, "UNDERWRITERS LABORATORIES INC. LISTED" (or "UND. LAB. INC. LIST.") may be stamped or molded into the product. When marked as such, the Listing Mark shall appear on the smallest unit packaging.

UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. UL shall not incur any obligation or liability for any loss, expense or damages, including incidental or consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guide Information.

JASCO PRODUCTS CO L L C**E7628**

BLDG B 10 E MEMORIAL RD, OKLAHOMA CITY OK 73114

Adapters.

ATTACHMENT PLUGS WITH OVERLOAD PROTECTION (AYVZ)**USE**

This category covers attachment plugs, separable and nonseparable attachment plugs, cord connectors, and male inlets designed to accommodate standard fuses, or provided with circuit breakers or equivalent overcurrent protection.

ADDITIONAL INFORMATION

For additional information, see Attachment Plugs (AXGV) and Electrical Equipment for Use in Ordinary Locations (AALZ).

REQUIREMENTS

The basic standard used to investigate products in this category is ANSI/UL 498, "Attachment Plugs and Receptacles."

UL MARK

The Listing Mark of UL on the product or on the smallest unit container in which the product is packaged is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Listing Mark for these products includes the UL symbol (as illustrated in the Introduction of this Directory) together with the word "LISTED," a control number, and the product name "Attachment Plug with Overload Protection," "Attachment Plug" or "Cord Connector," or other appropriate product name as shown in the individual Listings.

UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. UL shall not incur any obligation or liability for any loss, expense or damages, including incidental or consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guide Information.

AMPHENOL INDUSTRIAL OPERATIONS**E14847**

40-60 DELAWARE ST, SIDNEY NY 13838

Attachment plug caps.

DANIEL WOODHEAD CO**E52190**

SUITE 200 333 KNIGHTSBRIDGE PKY, LINCOLNSHIRE IL 60069

Attachment plugs-fused.

BOAT CABLE (BDFX)**GENERAL**

This category covers boat cable, which consists of a single insulated conductor without a jacket or two or more insulated conductors with or without an overall nonmetallic jacket, and which is suitable for use in marine pleasure crafts. Boat cable is rated 600 V or less, 60°C (122°F) or 75°C (167°F) wet, 60 to 200°C dry locations and, for cable so marked, 60°C (140°F) and lower temperatures where exposed to oil. The cable employs stranded copper conductors in a size range of 18 to 4/0 AWG inclusive for multiple-conductors, 16 to 4/0 AWG inclusive for single conductors.

Ampacities shall be in accordance with United States Coast Guard Regulations Title 33, Chapter I Parts 183.430 and 183.435 of the CFR.

ADDITIONAL INFORMATION

For additional information, see Electrical Equipment for Use in Ordinary Locations (AALZ) and Marine Products (AAMP).

REQUIREMENTS

The basic standard used to investigate products in this category is UL 1426, "Electrical Cables for Boats."

Cable rated 600 V is investigated to UL 1426. Cable rated 50 V is investigated to SAE J1127, J1128, or J378b.

UL MARK

The UL symbol on the product and the Listing Mark of UL on the attached tag, coil, reel, or smallest unit container in which the product is packaged is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Listing Mark for these products includes the UL symbol (as illustrated in the Introduction of this Directory) together with the word "LISTED," a control number, and the product name "Boat Cable."

UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. UL shall not incur any obligation or liability for any loss, expense or damages, including incidental or consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guide Information.

ALMO WIRE & CABLE INC

2709 COMMERCE WAY, PHILADELPHIA PA 19154



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30

BOAT CABLE (BDFX)

ALPHA WIRE CO 128 TOLMAN AVE, LEOMINSTER MA 01453	E146245
ATLAS WIRE CORP 9525 RIVER ST, SCHILLER PARK IL 60176	E215651
BADGER WIRE INC UNIT B W226 N758 EASTMOUND DR, WAUKESHA WI 53186	E315270
BRIDGEWATER TECH INC 2917 INDUSTRIAL DR, FARIBAULT MN 55021	E235919
CHAMPLAIN CABLE CORP 175 HERCULES DR, COLCHESTER VT 05446	E86292
COBRA WIRE & CABLE INC WILLOW GROVE INDUSTRIAL COMMONS 2930 TURNPIKE DR, HATBORO PA 19040	E163980
COLEMAN CABLE INC 1530 SHIELDS DR, WAUKEGAN IL 60085	E125352
CONCORDIA ELECTRIC WIRE & CABLE CO LTD BENTLEY WOOD WAY NETWORK 65 BUSINESS PARK HAPTON, BURNLEY BB11 5ST UNITED KINGDOM	E312429
DATA GUIDE CABLE CORP 232 SHERMAN ST, GARDNER MA 01440	E328438
DECA CABLES INC 150 N MURRAY ST PO BOX 777, TRENTON, ON K8V 5W6 CANADA	E209646
DIXIE WIRE CO, DIV OF AFL 5901 CALIFORNIA AVE, NASHVILLE TN 37209	E205639
DOMTECH INC 40 E DAVIS ST, TRENTON, ON K8V 6S4 CANADA	E306583
DRAKA CABLETEQ USA INC 22 JOSEPH E WARNER BLVD, NORTH DIGHTON MA 02764	E66316
EAST PENN MFG CO INC 1 DEKA RD PO BOX 147, LYON STATION PA 19536	E86521
ELECTRO CABLES INC 9 RIVERSIDE DR PO BOX 276, TRENTON, ON K8V 5R5 CANADA	E228482
FORMOSA ELECTRIC WIRE & CABLE CO LTD PO BOX 8-1, PAN CHIAO, TAIPEI HSIEN 220 TAIWAN	E252227
GENERAL CABLE INDUSTRIES INC 4 TESSENEER DR, HIGHLAND HEIGHTS KY 41076	E83312
INCOM EGYPT CO AMREYA FREE ZONE, ALEXANDRIA 23512 EGYPT	E179457
ISOTEC INC 1780 BIRCHWOOD, DES PLAINES IL 60018	E314108
JAMES MONROE WIRE & CABLE CORP STERLING RD PO BOX 1203, SOUTH LANCASTER MA 01561	E231303
JMS WIRE INC 1555 APEX RD, SARASOTA FL 34240	E157097
KALAS MFG INC 167 GREENFIELD RD, LANCASTER PA 17601	E67078
KEMCOR INC 15925 WOODINVILLE-REDMOND RD PO BOX 387, WOODINVILLE WA 98072	E10077



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BOAT CABLE (BDFX)

31

LAKE CABLE L L C 529 THOMAS DR, BENSENVILLE IL 60106	E251741
MONSTER CABLE PRODUCTS INC 455 VALLEY DR, BRISBANE CA 94005	E245530
NORTHWIRE INC 110 PROSPECT WAY, OSCEOLA WI 54020	E205918
PACIFIC ELECTRIC WIRE & CABLE CO LTD 25TH FL 95 DUNHUA S RD, SEC 2 DA-AN DISTRICT, TAIPEI 106 TAIWAN	E333812
PRESTOLITE WIRE CORP 1 PRESTOLITE DR, PARAGOULD AR 72450	E312510
SIGMA WIRE INTERNATIONAL L L C SUITE B 4906 HOFFMAN ST, ELKHART IN 46516	E310352
SOUTHWIRE CO 1 SOUTHWIRE DR, CARROLLTON GA 30119	E167397
SOUTHWIRE CO 1 SOUTHWIRE DR, CARROLLTON GA 30119	E69567
STANDARD MOTOR PRODUCTS 1718 HOME ST, MISHAWAKA IN 46545	E146461
THERM-O-LINK INC 10513 FREEDOM ST, GARRETTSVILLE OH 44231	E116277
UNIFIED WIRE & CABLE CORP 338 WURLITZER DR, DEKALB IL 60115	E247266

BOXES, ENCLOSURES, HANDHOLES AND VAULTS, UNDERGROUND, UTILITY SPECIFICATION (BGHL)

GENERAL

This category covers boxes, enclosures, handholes, vaults, and the associated covers for underground utility company installations and similar uses. These products are intended for installation as specified by the Authority Having Jurisdiction, and provide a level of protection with respect to unintentional mechanical loading only. They have not been investigated for protection against environmental conditions.

The Vertical Design Load of the system (box, enclosure, handhole or vault in combination with a cover) is equal to the lowest Vertical Design Load of either component. The Lateral Design Load is equal to that of the box, enclosure, handhole or vault.

PRODUCT MARKINGS

Boxes, enclosures, handholes and vaults are marked with a Vertical Design Load and a Lateral Design Load. Covers for use with these boxes, enclosures, handholes and vaults are marked with a Vertical Design Load only. Boxes, enclosures, handholes and vaults are marked to identify the covers with which they may be used. Covers are also marked to identify the boxes, enclosures, handholes and / or vaults for which they are suitable. Design Load markings may be in the form of a Tier rating as shown below:

Tier Level	Application	Vertical Design Load, lbs	Lateral Design Load, lbs/sq ft
5	Sidewalk applications with an additional factor for occasional nondeliberate vehicular traffic	5000	600
8	Sidewalk applications with an additional factor for nondeliberate vehicular traffic	8000	600
15	Driveway, parking lot and off-roadway applications subject to occasional nondeliberate heavy vehicular traffic	15,000	800

ADDITIONAL INFORMATION

For additional information, see Electrical Equipment for Use in Ordinary Locations (AALZ).

REQUIREMENTS

These products are investigated in accordance with the Society of Cable Telecommunications Engineers Standard ANSI/SCTE 77-(issue date), "Specification for Underground Enclosure Integrity," the provisions of paragraphs 5.2.3 and 5.2.4 of Western Underground Committee Guide 3.6-(issue date), "Nonconcrete Enclosures," and additional utility specifications as noted in the individual Listings and marked on the products.

UL MARK

The Listing Mark of UL on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Listing Mark for these products includes the UL symbol (as illustrated in the Introduction of this Directory) together with the word "LISTED," a control number, one of the following product names: "Underground Box," "Underground Enclosure," "Underground Handhole," "Underground Vault," "Cover for Underground ____" (where the blank is filled in with "Box," "Enclosure," "Handhole" or "Vault" as appropriate), or other appropriate product name as shown in the individual Listings, and

"Investigated in Accordance with ANSI/SCTE 77-(issue date) and the Western Underground Committee Guide 3.6-(issue date)." Also, when investigated to additional specifications, the organization name and specification, such as "XYZ Phone Company Specification 123ABC-(issue date)," is marked on the product.

UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. UL shall not incur any obligation or liability for any loss, expense or damages, including incidental or consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guide Information.

HUBBELL LENOIR CITY INC

3621 INDUSTRIAL PARK DR, LENOIR CITY TN 37771

E190048

Underground boxes investigated in accordance with the American National Standards Institute/Society of Cable Telecommunication Engineers Standard ANSI/SCTE 77 2007.

BOXES, JUNCTION AND PULL (BGUZ)

GENERAL

This category covers sheet-metal boxes, cast-metal boxes, and nonmetallic boxes. These boxes are provided with a cover secured by fasteners other than hinges. All boxes in this category have a volume of more than 100 cu in. (1640 cm³). These boxes are intended for installation in accordance with Article 314 of ANSI/NFPA 70, "National Electrical Code" (NEC).

ENVIRONMENTAL RATINGS AND CONDITIONS

Each junction and pull box is marked with one or more of the following Enclosure Type ratings for which it was investigated: Type 1, 2, 3, 3X, 3R, 3RX, 3S, 3SX, 4, 4X, 5, 6, 6P, 12, 12K or 13. The intended uses for each Enclosure Type are as indicated in Electrical Equipment for Use in Ordinary Locations (AALZ).

PVC junction and pull boxes are suitable for use with PVC rigid nonmetallic conduit. Such boxes are inherently resistant to atmospheres containing common industrial corrosive agents and will also withstand vapors or mists of caustics, pickling acids, plating baths, hydrofluoric and chromic acids.

Boxes marked as Type 2, 3R or 3RX enclosures may be marked to indicate the intended mounting orientation, or the location where electrical parts are intended to be installed, or both, where necessary to maintain the designated environmental rating.

Boxes marked as Type 3, 3X, 3S, 3SX, 4, 4X, 6, 6P, 12, 12K or 13 have integral mounting means external to the enclosure cavity or may have openings into the enclosure cavity for attachment of separate mounting means supplied with the enclosure or available as a kit referenced from enclosure markings.

CONDUIT CONNECTIONS

Cast-metal boxes suitable for field drilling and tapping of holes for conduit connections and mounting are marked to indicate the location and the trade sizes of the openings either on the box or on the packaging carton.

USE IN CONCRETE OR CINDER FILL

Cast-aluminum boxes suitable for use in concrete or cinder fill are marked to indicate this fact either on the box or on the packaging carton. These boxes may not be supplied with mounting means.

ELECTRICAL EQUIPMENT

Some boxes are intended for the installation of specific kinds of equipment; however, this category does not cover any electrical material or fittings contained in the box.

GROUNDING PROVISIONS

Metal boxes are intended to receive one of the equipment grounding conductors specified in Section 250.118 of the NEC and are provided with either a factory-supplied equipment grounding conductor terminal or instructions to obtain equipment grounding conductor terminal kit(s) available from the manufacturer, or are marked to indicate the boxes are intended to be grounded by metal raceways or metallic cable sheaths.

RELATED PRODUCTS

Boxes intended to accommodate metering transformers are covered under Metering Transformer Cabinets (PJXS).

Boxes intended for electric meter sockets are covered under Meter Sockets (PJYZ).

Boxes provided with a door are covered under Cabinets and Cutout Boxes (CYIV).

Enclosures investigated for ingress protection in accordance with IEC 60529, "Degrees of Protection Provided by Enclosures (IP Code)," are covered under Degrees of Protection by Enclosures Classified in Accordance with IEC Publications (EOFI).

Enclosures intended for use with industrial control panels are covered under Industrial Control Panels (NITW).

Boxes having a volume of 100 cu in. or less are covered under Metallic Outlet Boxes (QCIT) or Nonmetallic Outlet Boxes (QCMZ).

Boxes intended for use with swimming pool luminaires are covered under Swimming Pool Junction Boxes (WCEZ).

Boxes intended for use aboard marine vessels are covered under Boxes, Junction and Pull, Marine (QCUP).

Boxes for use in hazardous (classified) locations are covered under Boxes, Junction and Pull for Use in Zone Classified Hazardous Locations (BGYM).

ADDITIONAL INFORMATION

For additional information, see Electrical Equipment for Use in Ordinary Locations (AALZ).

REQUIREMENTS

The basic standards used to investigate products in this category are ANSI/UL 50, "Enclosures for Electrical Equipment, Non-Environmental Considerations," and ANSI/UL 50E, "Enclosures for Electrical Equipment, Environmental Considerations."

UL MARK

The Listing Mark on the product or the UL symbol on the product and the Listing Mark of UL on the smallest unit container in which the product is packaged is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Listing Mark for these products includes the UL symbol (as illustrated in the Introduction of this Directory) together with the word "LISTED," a control number, and one of the following product names: "Junction and Pull Box," "Junction Box," "Pull Box," "J&P," or other appropriate product name as shown in the individual Listings.

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A B CONTROLS & TECHNOLOGY LTD

SAUNDERSON ST LOWER DON VALLEY, SHEFFIELD S9
2UA UNITED KINGDOM

E148482

A E I SL (ACCESORIOS Y EQUIPOS INDUSTRIALES)

AVENIDA CASTILLOS S/N LOCALES 1 Y 2 28692, VILLANUEVA
DE LA CANADA SPAIN

E344042

AC/DC EQUIPMENT CO

1376 TWP RD 743, ASHLAND OH 44805



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BOXES, JUNCTION AND PULL (BGUZ)	33
ADALET/SCOTT FETZER CO 4801 W 150TH ST, CLEVELAND OH 44135	E33075
ADJ SHEET METAL INC 4510 GRAPHICS DR, WHITE PLAINS MD 20695	E332928
ADVANCE LITES INC 1801 N LAMON AVE, CHICAGO IL 60639	E335322
ALIMAK AB BOX 720 SE-931 27, SKELLEFTEA SWEDEN	E222240
ALLIED MOULDED PRODUCTS INC 222 N UNION ST, BRYAN OH 43506	E244312
ALLIED TUBE & CONDUIT CORP BLUE ISLAND OPERATIONS 16100 S LATHROP AVE, HARVEY IL 60473	E324925
AMERICAN ACCESS TECHNOLOGIES INC 6670 SPRING LAKE RD, KEYSTONE HEIGHTS FL 32656	E236975
APPLETON ELECTRIC L L C 9377 W HIGGINS RD, ROSEMONT IL 60018	E110234
AREA ENERGY INC 4F-2 NO 2 LANE 258 RUIGUANG RD, TAIPEI 114 TAIWAN	E329784
ASCO POWER TECHNOLOGIES L P 50-56 HANOVER RD, FLORHAM PARK NJ 07932	E15662
AUSTIN CO OF GREENSBORO INC 2100 HOOTS RD PO BOX 2320, YADKINVILLE NC 27055-6654	E38905
BARBER ELECTRIC MFG CO INC 30 CHESTNUT ST, NORTH ATTLEBORO MA 02760	E18941
BARTEC VARNOST D O O CESTA 9, AUGUSTA 59 SI-1410, ZAGORJE OD SAVI SLOVENIA	E188224
BEL PRODUCTS INC 6868 MAURICE DUPLESSIS, MONTREAL, QC H1G 1Z6 CANADA	E109311
BUD INDUSTRIES 4605 E 355TH ST, WILLOUGHBY OH 44094	E348279
C & I ALABAMA HOLDINGS INC 913 INDUSTRIAL PARK CIR, BESSEMER AL 35022	E257459
CAFFEY INC 3018 BIG RIDGE RD, D'IBERVILLE MS 39540	E254151
CANTEX INC SUITE 2700 301 COMMERCE ST, FORT WORTH TX 76102	E205935
CHICAGO ENCLOSURES L L C 1975 N 17TH AVE, MELROSE PARK IL 60160	E326442
CHICAGO SWITCHBOARD CO INC 470 W WRIGHTWOOD AVE, ELMHURST IL 60126	E61366
COOPER B-LINE INC 509 W MONROE ST, HIGHLAND IL 62249	E16999
COOPER CROUSE-HINDS S A DE C V AV JAVIER ROJO, GOMEZ 1170 COL 09300, GUADALUPE DEL MORAL, DF MEXICO	E146244
COOPER CROUSE-HINDS WOLF & 7TH NORTH ST PO BOX 4999, SYRACUSE NY 13221	E110732
COOPER CROUSE-HINDS WOLF & 7TH NORTH ST PO BOX 4999, SYRACUSE NY 13221	E13986



2012 ELECTRICAL CONSTRUCTION EQUIPMENT DIRECTORY

34

BOXES, JUNCTION AND PULL (BGUZ)

CUSHING MFG & EQUIPMENT CO INC 2901 COMMERCE RD PO BOX 24365, RICHMOND VA 23224	E31084
CUSTOM ELECTRICAL ENCLOSURES 1800 N TYLER AVE, SOUTH EL MONTE CA 91733	E225711
DRAKA ELEVATOR PRODUCTS INC 2151 N CHURCH ST, ROCKY MOUNT NC 27804	E257182
E T A SPA VIA MONTE BARZAGHINO 6 22035, CANZO, CO ITALY	E228435
E-BOX INC 101 AIR PARK INDUSTRIAL RD, ALABASTER AL 35007	E121758
EAST COAST PANELBOARD INC 101 TORNILLO WAY, TINTON FALLS NJ 07712	E125590
EASTER-OWENS ELECTRIC CO 6692 FIG ST, ARVADA CO 80004	E220526
EKSTROM INDUSTRIES INC, DBA BROOKS UTILITY PRODUCTS GROUP 23847 INDUSTRIAL PARK DR, FARMINGTON HILLS MI 48335	E194431
ELECTRIC SWITCHBOARD SOLUTIONS L L C 270 PARK AVE, GARDEN CITY PARK NY 11040	E76290
ELECTRICAL ENCLOSURE MFG INDUSTRIAL PARK DRIVE P O BOX 917, PELL CITY AL 35125	E124286
ELECTRIX INTERNATIONAL LTD DOVECOT HILL SOUTH CHURCH ENTERPRISE PARK, BISHOP AUCKLAND, CO DURHAM DL14 6XP UNITED KINGDOM	E233528
ELSTEEL (PVT) LTD SPUR ROAD 2 PHASE-I EPZ, KATUNAYAKE SRI LANKA	E213746
ERICKSON ELECTRICAL EQUIPMENT CO 475 BONNIE LN, ELK GROVE VILLAGE IL 60007	E59156
ERO INC SUITE A-2 8011 MONETARY DR, RIVIERA BEACH FL 33404	E195262
EXM MFGING LTD 870 BOUL MICHELE-BOHEC, BLAINVILLE, QC J7C 5E2 CANADA	E189901
FAB*AM ELECTRIC INC 1243 OAKPOINT AVE, BRONX NY 10474	E326611
FERRIE FRANZMANN INDUSTRIES L L C, DBA ESSMETRON 1505 W 3RD AVE, DENVER CO 80223	E14577
FOUCH ELECTRIC MFG CO P O BOX 2824, PORTLAND OR 97208	E35792
FOWLER'S SHEET METAL INC 4716 GEORGIA AVE, WEST PALM BEACH FL 33405	E188024
FUSION TECH INTEGRATED INC 218 20TH AVE, ROSEVILLE IL 61473-9144	E336816
GAVAN-GRAHAM ELECTRICAL PRODUCTS CORP 751 RAHWAY AVE, UNION NJ 07083	E31812
GAYLORD MFG CO 1088 MONTCLAIRE DR PO BOX 547, CERES CA 95307	E29925
GIVCO INC 22140 OLD NACOGDOCHES RD, NEW BRAUNFELS TX 78132-4847	E145611



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