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GUIDE TO VERIFYING SURGE PROTECTIVE DEVICES INSTALLED IN LIGHTNING PROTECTION SYSTEM INSTALLATIONS ARE COMPLIANT WITH UL 96A.

❖ HOW TO VERIFY SURGE PROTECTIVE DEVICES SUITABLE FOR USE ON ELECTRIC SERVICE ENTRANCES IN COMPLIANCE WITH UL 96A

UL LISTED SURGE PROTECTIVE DEVICES, INCLUDING PHOTOVOLTAIC APPLICATIONS (PV SPDS) - (CCN VZCA) - TYPE 1 & 2 ONLY ARE SUITABLE FOR LPS

- Rating: 1000 Volts AC or less or 1500 Volts DC or less
- Device Standard & UL 96A References:
 - UL Standard: UL 1449, 3rd Edition
 - UL 96A Paragraph Reference: 13.1

To verify compliant devices to this category, the following guidelines should be used:

- The following is required to be marked on the device:
 - UL in a Circle
 - The Word “Listed” (Note - For the New Enhanced UL Certification Mark, the Words “Certified” and “Safety” along with a geographic identifier and file number is required)
 - Control Number (4 digit alpha numeric number). (Note – For the New Enhanced UL Certification Mark this is only required for a Multiple Listee)
 - Product Identity consisting of one of the following: “Surge Protective Device”, or “SPD”, and marked as Type 1 or Type 2 SPD.
 - **The UL Listing Mark requires the use of a holographic label, regardless of the country of manufacture. (Note – This also applies to the New Enhanced UL Certification Mark)**
 - Electrical Ratings, Operating Volts, Frequency & Number of Phases or DC, Voltage Protection Rating (VPR), Nominal Discharge Current (In) Rating (minimum 20kA), Maximum Continuous Operating Voltage Rating (MCOV), and Short-Circuit Current Rating (SCCR).
 - PV SPDs are marked, "For Use in Photovoltaic Systems Only," or the equivalent.
 - SPDs investigated for general dc applications may also be marked, "Suitable for Use in Photovoltaic Systems."




- Installation Notes:
 - Type 1 devices are suitable to be installed on the line or load side of the service disconnect overcurrent protective device and where the circuit voltage does not exceed 1000V. Type 2 devices are suitable to be installed only on the load side of the service disconnect overcurrent protective device and where the circuit voltage does not exceed 1000V.
 - Need to verify the following electrical ratings based on the device markings:
 - The operating voltage rating is suitable for the circuit voltage.
 - Nominal Discharge Current (In) Rating is 20 kA or greater.
 - Listing information is available to installers on the On-Line Certification Directory for this category.

UL RECOGNIZED COMPONENT SURGE PROTECTIVE DEVICES, INCLUDING PHOTOVOLTAIC APPLICATIONS (PV SPD) - (CCN VZCA2) - TYPE 4, MARKED SUITABLE FOR USE AS TYPE 1 OR 2 ONLY –

- Rating: 1000 Volts AC or less or 1500 Volts DC or less
- Device Standard & UL 96A References:
 - UL Standard: UL 1449, 3rd Edition
 - UL 96A Paragraph Reference: 13.1

To verify compliant devices to this category, the following guidelines should be used:

- The following is required to be marked on the device:
 - Recognized Company's Identification
 - Catalog, Model, or other product designation as shown in the Certification Directory.
 - The Recognized Component Symbol .
 - Nominal Discharge Current (In) rating (minimum 20 kA)
 - Marked suitable for use as a Type 1 or 2 SPD.
 - PV SPDs are marked, "For Use in Photovoltaic Systems Only," or the equivalent.
 - SPDs investigated for general dc applications may also be marked, "Suitable for Use in Photovoltaic Systems."
- Installation Notes:
 - Must be factory installed by utilization equipment manufacturer only, as part of UL Listed equipment, i.e., switchboard, panelboard, etc.
 - Only devices recognized as suitable for use as Type 1 or Type 2 applications are acceptable for LPS applications.
 - Devices marked as suitable for Type 1 applications are suitable to be installed on the line or load side of the service disconnect overcurrent protective device and where the circuit voltage does not exceed 1000V. Devices marked as suitable for Type 2 applications are suitable to be installed only on the load side of the service disconnect overcurrent protective device and where the circuit voltage does not exceed 1000V.



- Need to verify the following electrical ratings based on the device markings:
 - The operating voltage rating is suitable for the circuit voltage.
 - Nominal Discharge Current (In) Rating is 20 kA or greater.
- Recognition information is available to installers on the On-Line Certification Directory for this category.

UL LISTED COMBINATION CIRCUIT BREAKER AND SURGE-PROTECTIVE DEVICES – (CCN DIMV) – TYPE 1 OR 2 ONLY ARE SUITABLE FOR LPS

- Rating: 600 Volts AC or less
- Device Standard & UL 96A References:
 - UL Standard: UL 1449, 3rd Edition
 - UL 96A Paragraph Reference: 13.1

To verify compliant devices to this category, the following guidelines should be used:

- The following is required to be marked on the device:
 - UL in a Circle
 - The Word “Listed” (Note - For the New Enhanced UL Certification Mark, the Words “Certified” and “Safety” along with a geographic identifier and file number is required)
 - Control Number (4 digit alpha numeric number). (Note – For the New Enhanced UL Certification Mark this is only required for a Multiple Listee)
 - Product Identity consisting of one of the following: “Circuit Breaker and SPD” or “Circuit Breaker and Surge-protective Device”, and marked as Type 1 or Type 2 SPD.
 - Electrical Ratings, Operating Volts, Frequency & Number of Phases, Voltage Protection Rating (VPR), Nominal Discharge Current (In) Rating (minimum 20kA), Maximum Continuous Operating Voltage Rating (MCOV), and Short-Circuit Current Rating (SCCR).
- Installation Notes:
 - Must be factory installed by utilization equipment manufacturer only, as part of UL Listed equipment, i.e., switchboard, panelboard, circuit breaker enclosures, etc.
 - Type 1 devices are suitable to be installed on the line or load side of the service disconnect overcurrent protective device and where the circuit voltage does not exceed 600V. Type 2 devices are suitable to be installed only on the load side of the service disconnect overcurrent protective device and where the circuit voltage does not exceed 600V.
 - Need to verify the following electrical ratings based on the device markings:
 - The operating voltage rating is suitable for the circuit voltage.
 - Nominal Discharge Current (In) Rating is 20 kA or greater.
 - Listing information is available to installers on the On-Line Certification Directory for this category.



UL LISTED TRANSIENT VOLTAGE SURGE SUPPRESSORS OR TVSS – (CCN XUHT)

Note - This category has been discontinued and information is no longer available on UL's On-Line Certification Directory for devices previously covered in this category. It is recommended that devices under the category (VZCA), (VZCA2), or (DIMV) surge protective devices be used, since information is readily available on the On-Line Certification Directory.

- Rating: 600 Volts AC or less
- Device Standard & UL 96A References:
 - UL Standard: UL 1449, 2nd Edition
 - UL 96A Paragraph Reference: 13.1

For the purpose of verifying compliant devices manufactured prior to this category being discontinued, the following guidelines should be used:

- The following is required to be marked on the device:
 - UL in a Circle
 - The Word "Listed"
 - Control Number (4 digit alpha numeric number)
 - Product Identity consisting of the following: "Transient Voltage Surge Suppressor" or "TVSS" and reference to LPS, i.e. "TVSS for LPS". **Special Note - The device is not suitable for LPS applications unless device is marked with the LPS reference.**
 - **The UL Listing Mark requires the use of a holographic label for devices manufactured in China effective as of 11/01/1996.**
- Installation Notes:
 - Only suitable to be installed on the load side of the service disconnect overcurrent protective device and where the circuit voltage does not exceed 1000V.
 - Do not need to verify Nominal Discharge Current (In) rating. Only need to verify device is marked as indicated above.

UL LISTED LIGHTNING PROTECTION SURGE ARRESTERS – (COMPLIMENTARY LISTED FOR CCNs OWHX AND XUHT)

Note - This category has been discontinued and information is no longer available on UL's On-Line Certification Directory for devices previously covered in this category. It is recommended that devices under the category (VZCA), (VZCA2), or (DIMV) Surge Protective Devices be used, since information is readily available on the On-Line Certification Directory.

- Rating: 600 Volts AC or less
- Device Standard & UL 96A References:
 - UL Standard: UL 1449, 2nd Edition
 - ANSI/IEEE C62.11
 - UL 96A Paragraph Reference: 13.1



For the purpose of verifying compliant devices manufactured prior to this category being discontinued, the following guidelines should be used:

- The following is required to be marked on the device:
 - UL in a Circle
 - The Word “Listed”
 - Control Number (4 digit alpha numeric number)
 - Product Identity consisting of one of the following: “Surge Arrester”, “Secondary Surge Arrester”, “Secondary MOV Surge Arrester”, “Secondary Metal-Oxide Surge Arrester”, “Secondary Valve Type Surge Arrester”, or “Distribution Duty Surge Arrester”.
 - In addition, since this device is required to be complementary listed under the category of (XUHT), the following product identity would also need to be marked on the device: “Transient Voltage Surge Suppressor” or “TVSS”

- Installation Notes:
 - Device must be Complementary UL Listed under the categories (OWHX) and (XUHT).
 - Device is suitable to be installed on the line or load side of the service disconnect overcurrent protective device and where the circuit voltage does not exceed 600V.
 - Do not need to verify Nominal Discharge Current (In) rating. Only need to verify device is marked as indicated above.

UL LISTED SURGE ARRESTERS (CCN VZQK) – RATED GREATER THAN 1000 VOLTS AC

NOTE – Currently, there are no listings established under this category. The Guide Card information is available to installers on the On-Line Certification Directory.

- Ratings: Greater than 1000 Volts AC

- Device Standard & UL 96A:
 - ANSI/IEEE C62.11 or ANSI/IEEE C62.1
 - UL 96A Paragraph Reference: 13.3

To verify compliant devices to this category, the following guidelines should be used:

- The following is required to be marked on the device:
 - UL in a Circle
 - The Word “Listed” (Note - For the New Enhanced UL Certification Mark, the Words “Certified” and “Safety” along with a geographic identifier and file number is required)
 - Control Number (4 digit alpha numeric number). (Note – For the New Enhanced UL Certification Mark this is only required for a Multiple Listee)
 - Product Identity consisting of the following: "Surge Arrester," "Distribution Normal Duty Surge Arrester" or "Station Class Surge Arrester," or other appropriate product name as shown in the individual Listing.



- Installation Notes:
 - Device is suitable to be installed on the line or load side of the service disconnect overcurrent device.
 - Verify device is marked as indicated above and suitable for use in a circuit voltage greater than 1kV.

❖ **HOW TO VERIFY SURGE PROTECTIVE DEVICES SUITABLE FOR USE ON COMMUNICATION, RADIO, AND TELEVISION SYSTEMS IN COMPLIANCE WITH UL 96A**

UL LISTED PRIMARY PROTECTORS FOR COMMUNICATION CIRCUITS – (CCN QVGV)

- Rating: 300 Volts or less
- Device Standard & UL 96A References:
 - UL 497 – Primary Protectors for Paired-Conductor Communication Circuits
 - UL 96A Paragraph Reference: 13.2

To verify compliant devices to this category, the following guidelines should be used:

- The following is required to be marked on the device or on the smallest unit container in which the product is packaged:
 - UL in a Circle
 - The Word “Listed” (Note - For the New Enhanced UL Certification Mark, the Words “Certified” and “Safety” along with a geographic identifier and file number is required)
 - Control Number (4 digit alpha numeric number). (Note – For the New Enhanced UL Certification Mark this is only required for a Multiple Listee)
 - Product Identity consisting of the following: “Signal Circuit Protector”, “Telephone Protector”, or “Network Interface Device”.
- Installation Notes:
 - Typical use applications include circuits for voice, audio, data, interactive services, telegraph, fire alarm & burglar alarm wiring, network interface devices, etc.
 - At this time, it is not required that the device be marked or verified for a Nominal Discharge Current (In), although it is recommended to use devices marked with a 10kA.
 - Device should be mounted near the point of service entrance.
 - Listing information is available to installers on the On-Line Certification Directory for this category.



❖ **HOW TO VERIFY SURGE PROTECTIVE DEVICES SUITABLE FOR USE ON COAXIAL SIGNAL CABLE SERVICE ENTRANCES IN COMPLIANCE WITH UL 96A**

UL LISTED PRIMARY PROTECTORS FOR COAXIAL COMMUNICATION CIRCUITS AND NETWORK-POWERED BROADBAND COMMUNICATION SYSTEMS – (CCN QVKC)

- Rating: 300 Volts or less
- Device Standard & UL 96A References:
 - UL 497C – Primary Protectors for Coaxial Communication Circuits
 - UL 96A Paragraph Reference: 13.2

To verify compliant devices to this category, the following guidelines should be used:

- The following is required to be marked on the device or on the smallest unit container in which the product is packaged:
 - UL in a Circle
 - The Word “Listed” (Note - For the New Enhanced UL Certification Mark, the Words “Certified” and “Safety” along with a geographic identifier and file number is required)
 - Control Number (4 digit alpha numeric number). (Note – For the New Enhanced UL Certification Mark this is only required for a Multiple Listee)
 - Product Identity consisting of the following: “Primary Coaxial Protector”.
- Installation Notes:
 - Typical use applications include circuits for coaxial communication circuits, network powered broadband communication systems, coaxial cable (CATV) systems, etc.
 - At this time, it is not required that the device be marked or verified for a Nominal Discharge Current (In), although it is recommended to use devices marked with a 10kA.
 - Device should be mounted near the point of service entrance.
 - Listing information is available to installers on the On-Line Certification Directory for this category.



❖ **HOW TO VERIFY SURGE PROTECTIVE DEVICES SUITABLE FOR USE ON OUTDOOR ANTENNA LEAD-IN CONNECTIONS FOR RADIO AND TELEVISION RECEIVING EQUIPMENT AND AMATEUR RADIO-TRANSMITTING AND RECEIVING EQUIPMENT IN COMPLIANCE WITH UL 96A**

UL LISTED ANTENNA DISCHARGE UNITS – (CCN ASWA)

- Rating: None Required
- Device Standard & UL 96A References:
 - UL 452 – Antenna Discharge Units
 - UL 96A Paragraph Reference: 13.2

To verify compliant devices to this category, the following guidelines should be used:

- The following is required to be marked on the device:
 - UL in a Circle
 - The Word “Listed” (Note - For the New Enhanced UL Certification Mark, the Words “Certified” and “Safety” along with a geographic identifier and file number is required)
 - Control Number (4 digit alpha numeric number). (Note – For the New Enhanced UL Certification Mark this is only required for a Multiple Listee)
 - Product Identity consisting of the following: "Antenna Discharge Unit," or other appropriate product name as shown in the individual listing.
- Installation Notes:
 - Typical use applications include antenna systems for radio & television, i.e., multi-element, vertical rod, and dish.
 - Do not need to verify Nominal Discharge Current (In). Only need to verify device is marked as noted above.
 - Device should be mounted on the antenna lead-in conductor.
 - Listing information is available to installers on the On-Line Certification Directory for this category.

UL LISTED PROTECTORS FOR ANTENNA LEAD-IN CONDUCTORS – (CCN QVLA)

- Rating: None required
- Device Standard & UL 96A References:
 - UL 497E – Outline of Investigation for Protectors for Antenna Lead-In Conductors
 - UL 96A Paragraph Reference: 13.2



To verify compliant devices to this category, the following guidelines should be used:

- The following is required to be marked on the device or on the smallest unit container in which the product is packaged:
 - UL in a Circle
 - The Word “Listed” (Note - For the New Enhanced UL Certification Mark, the Words “Certified” and “Safety” along with a geographic identifier and file number is required)
 - Control Number (4 digit alpha numeric number). (Note – For the New Enhanced UL Certification Mark this is only required for a Multiple Listee)
 - Product Identity consisting of the following: "Antenna Lead-in Protector" or "Antenna Lightning Protector," or other appropriate product name as shown in the individual Listing.

- Installation Notes:
 - Typical use applications include antenna installations for radio and television receiving equipment, amateur radio transmitting and receiving equipment, cellular telephone towers and WiMax or WiFi wireless networks.
 - Do not need to verify Nominal Discharge Current (In). Only need to verify device is marked as noted above.
 - Device should be mounted on the antenna lead-in conductor.
 - Listing information is available to installers on the On-Line Certification Directory for this category.

❖ **HOW TO VERIFY SURGE PROTECTIVE DEVICES SUITABLE FOR USE ON CLASS 2 OR 3 REMOTE CONTROL, SIGNALING AND POWER-LIMITED CIRCUITS OR FIRE PROTECTION SIGNALING CIRCUITS IN COMPLIANCE WITH UL 96A**

UL LISTED ISOLATED LOOP CIRCUIT PROTECTORS – (CCN QVGO)

- Rating: 300 Volts or less

- Device Standard & UL 96A References:
 - UL 497B – Protectors for Data Communication and Fire Alarm Circuits
 - UL 96A Paragraph Reference: 13.2

To verify compliant devices to this category, the following guidelines should be used:

- The following is required to be marked on the device when size permits, or on the smallest unit container in which the product is packaged:
 - UL in a Circle
 - The Word “Listed” (Note - For the New Enhanced UL Certification Mark, the Words “Certified” and “Safety” along with a geographic identifier and file number is required)
 - Control Number (4 digit alpha numeric number). (Note – For the New Enhanced UL Certification Mark this is only required for a Multiple Listee)
 - Product Identity consisting of the following: "Isolated Loop Circuit Protector”



- Installation Notes:
 - Typical use applications include Class 2 or Class 3 remote control, signaling and power limited circuits, or fire protection signaling circuits.
 - Do not need to verify Nominal Discharge Current (In). Only need to verify device is marked as noted above.
 - Device should be mounted near the point of service entrance.
 - Listing information is available to installers on the On-Line Certification Directory for this category.



How to search for Surge Protective Devices for Lightning Protection System Installations in compliance with UL 96A

Step 1 - Go to www.ul.com

Scroll down to the very bottom of the web page and select “Online Certification Directory” as shown below. This will take you to the search page.

The screenshot shows the footer of the UL website. At the top, there is a grid of links: Authorities overview, Manufacturers overview, Consumers overview, UL Marks & Badges, Code correlation database, Product submittals, Safety Smart, UL Listing & Classification Marks, Marking guides, Marks and labels, and Report a Concern. Below this is a dark grey footer area. On the left, there is the UL logo and a paragraph of text: "UL is a global independent safety science company offering expertise across six key strategic businesses: Commercial & Industrial, Environment, Information & Insights, Life & Health, Consumer and Workplace Health & Safety. Our breadth, established objectivity and proven history mean we are a symbol of trust, and enable us to help provide peace of mind to all." followed by a "more >" link. In the center, there are three columns of links: "About UL" (History, Leadership, Careers, Corporate Social Responsibility, Newsroom), "Information for" (Manufacturers, Code Authorities, Consumers, Retailers), "Dashboard" (Library, Marks Hub, Services, Standards), and "Help" (FAQs, Locations, New to UL). On the right, there is a "Resources" column with links: My-Home at UL, Online Certifications Directory (circled in white), Certification Marks, UL Collaborative Standards Development System, Standards Certification Customer Library, UL iQ™, Request for Quote, and Report a Concern. A black callout box with white text "Click on 'Online Certifications Directory'" has a white arrow pointing to the circled link.



Surge Protective Devices (SPD) Search Page

Step 2 - The search page as shown below is where you will enter the UL Category Code (CCN). For example VZCA, DIMV, QVGV, etc. To help with finding DC rated SPDs, type in "DC" in the keyword field. This field can also be used to narrow your searches.

The screenshot shows the UL Online Certifications Directory search interface. The main search form is titled "BEGIN A BASIC SEARCH" and includes fields for Company Name, City, US State, US Zip Code, Country, Region, Postal Code (non-US), UL Category Code (with "vzca" entered), UL File Number, and Keyword. A callout box points to the UL Category Code field with the text "Enter the Category Code (CCN) in this field and click on 'Search'". Another callout box points to the Keyword field with the text "Type in 'DC' in the keyword field to search for DC rated SPDs". Below the search form are sections for "ABOUT THE ONLINE CERTIFICATIONS DIRECTORY", "SPECIFIC SEARCHES", "FEATURED LINKS" (including "UL Alarm Services Search" and "UL Code Correlation Database"), and "LINKS OF INTEREST". A "UL ANYTIME" logo is also visible.