



MARCH 11, 2010

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

❖ HOW TO VERIFY SURGE PROTECTION DEVICES SUITABLE FOR USE ON ELECTRIC SERVICE ENTRANCES RATED 1000 VOLTS OR LESS IN COMPLIANCE WITH UL 96A

UL LISTED SURGE PROTECTIVE DEVICES (TYPE 1 & 2 ONLY SPD DEVICES ARE SUITABLE FOR LPS APPLICATION) - (CCN VZCA)

- Device Standard & Code References:
 - UL Standard: UL 1449, 3rd Edition
 - NEC 2008 Reference: Article 285
 - 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”
 - Control Number (4 digit alpha numeric number)
 - 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.**
 - Electrical Ratings, Voltage Protection Rating (VPR), Nominal Discharge Current (In) Rating, Maximum Continuous Operating Voltage Rating (MCOV), and Short-Circuit Current Rating (SCCR).
- 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 (TYPE 4 SPD DEVICES) - (CCN VZCA2) – NOTE THESE DEVICES ARE FACTORY INSTALLED ONLY

- Device Standard & Code References:
 - UL Standard: UL 1449, 3rd Edition
 - NEC 2008 Reference: Article 285
 - 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.
- 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 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) Surge Protection Devices be used, since information is readily available on the On-Line Certification Directory.

- Device Standard & Code References:
 - UL Standard: UL 1449, 2nd Edition
 - NEC 2008 Reference: Article 285
 - 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) Surge Protection Devices be used, since information is readily available on the On-Line Certification Directory.

- Device Standard & Code References:
 - UL Standard: UL 1449, 2nd Edition
 - ANSI/IEEE C62.11
 - NEC 2008 Reference: Article 285
 - 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 1000V.
 - Do not need to verify Nominal Discharge Current (In) rating. Only need to verify device is marked as indicated above.

❖ **HOW TO VERIFY SURGE PROTECTION DEVICES SUITABLE FOR USE ON ELECTRIC SERVICE ENTRANCES RATED GREATER THAN 1000 VOLTS IN COMPLIANCE WITH UL 96A**

UL LISTED SURGE ARRESTERS GREATER THAN 1000 VOLTS – (VZOK)

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

- Device Standard & Code References:
 - ANSI/IEEE C62.11 or ANSI/IEEE C62.1
 - NEC 2008 Reference: Article 280
 - 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”
 - Control Number (4 digit alpha numeric number)
 - 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 PROTECTION DEVICES SUITABLE FOR USE ON COMMUNICATION, RADIO, AND TELEVISION SYSTEMS IN COMPLIANCE WITH UL 96A**

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

- Device Standard & Code References:
 - UL 497 – Primary Protectors for Paired-Conductor Communication Circuits
 - NEC 2008 Reference: Article 800
 - 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”
 - Control Number (4 digit alpha numeric number)
 - Product Identity consisting of the following: “Signal Circuit Protector”, “Telephone Protector”, or “Network Interface Protector”.

- Installation Notes:
 - Typical use applications include circuits for voice, audio, data, interactive services, telegraph, fire alarm & burglar alarm wiring, network interface devices, etc.
 - 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 VERIFY SURGE PROTECTION 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)

- Device Standard & Code References:
 - UL 497C – Primary Protectors for Coaxial Communication Circuits
 - NEC 2008 Reference: Article 830
 - 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”
 - Control Number (4 digit alpha numeric number)
 - 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.
 - 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 VERIFY SURGE PROTECTION 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)

- Device Standard & Code References:
 - UL 452 – Antenna Discharge Units
 - NEC 2008 Reference: Articles 810
 - 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”
 - Control Number (4 digit alpha numeric number)
 - 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)

NOTE – Currently, there are no listings established under this category. The Guide Card information is available to installers on the On-Line Certification Directory. Until devices for this category are available, accept CCN (QVKC), Primary Protectors for Coaxial Communication Circuits. Devices listed under CCN (QGVV) may be used only where Paired-Conductor Communication Circuits exist.

- Device Standard & Code References:
 - UL 497E – Outline of Investigation for Protectors for Antenna Lead-In Conductors
 - NEC 2008 Reference: Articles 810
 - 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”
 - Control Number (4 digit alpha numeric number)
 - 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 PROTECTION 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)

- Device Standard & Code References:
 - UL 497B – Protectors for Data Communication and Fire Alarm Circuits
 - NEC 2008 Reference: Articles 725 & 760
 - 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”
 - Control Number (4 digit alpha numeric number)
 - 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.