TIP SHEET

BUYER BEWARE—SPD AND UL MARKINGS: ARE YOU BUYING OR SELLING THE RIGHT PRODUCT?

BY KENT WALKER, VP TECHNICAL SERVICES

Significant changes have taken place regarding Surge Protection Devices and UL 1449. With the changes has come different product marking requirements to identify those testing and product changes. Manufacturers of SPD equipment have long been testing to UL 1449 but only recently have such significant changes taken place regarding a whole product categories testing and performance.

An updated UL 1449 standard was released titled UL Standard for Safety for Surge Protective Devices, UL 1449 Third Edition, and was dated September 29, 2006. The result was that all manufacturers were required to retest their SPD products to ensure compliance before 9/29/2009.

The easiest way to notice a new SPD product versus an older product that still may be in inventory is the new gold UL holographic label on the product. The new label must have the SPD and not TVSS which was used during the later part of UL 1449- 2 edition.

Additional changes and requirements to meet the standard included:

- Consolidation of transient voltage surge suppressors and surge arrestors into one single product category titled surge protective devices or SPD.
- 2. Classification of SPD products into four categories Type 1, 2, 3, and 4.
- Changes to the wording and test current for the voltage ratings of the SPDs. SVR or Suppressed Voltage Rating was changed to VPR or Voltage Protection Rating which is also performed at



Find the gold UL holographic label on the product with the word SPD, not TVSS in the middle of the label.

- a 3ka surge current level, compared to the old SVR test of 500 amps. Typically the new VPR data is usually higher than the old SVR because of the higher surge current levels used for the new VPR test.
- 4. Additions to the standard are the In or Nominal Discharge Current test. This test subjects the SPD to a series surges currents chosen by the manufacturer. The testing requires the SPD to be checked before and after to ensure the device functionality is still within specification.

TS-SPD-UL-002 | 09.17 | PDF | @Mersen 2017



- 5. Changes to product labeling / markings include:
 - Must specify on label what type of SPD
 -Type 1, 2, 3, or 4
 - Nominal Discharge Current (In) rating must be marked - i.e. In= 20kA
 - Maximum Continuous Operating Voltage (MCOV)
 - SCCR (Short circuit Current Rating)
 - VPR (Voltage Protection Rating)

Many manufacturers have made the business decision to not use UL for certification of their products and have opted to use other third party, non-UL labs. This method has already resulted in different interpretations of the UL standard and products may not have been subjected to the same test conditions as with UL certification. Cost savings are substantial and turnaround is significantly faster. If there's no gold holographic label on the product it's not UL listed. It may be tested to or compliant with but it's not listed.

Again, the easiest way to spot a UL listed SPD, that's compliant to UL 1449-3rd edition is to find the gold UL holographic label on the product with the word SPD, not TVSS in the middle of the label.

