

Memorandum

TVSS, UL1449 2nd Edition Revisions

GE is proud to announce full compliance with the February 2007 revisions to the UL 1449 2nd Edition safety standards across our entire product line of Transient Voltage Surge Suppressors (TVSS).

The UL 1449, 2nd Edition, safety standard was revised in February 2005. After February 9, 2007, the changes go into effect, and all products manufactured after this date must comply to maintain their UL Listed or UL Recognized status. The UL requirements cover TVSS that are permanently connected, cord connected, and direct plugin applications on 50 or 60Hz power circuits not exceeding 600VAC.

The latest changes in this revision expand on the existing fault current testing required of all TVSS products. The updates can be found in the UL 1449 standard, section 37.3.1, Full phase voltage Short circuit current abnormal overvoltage test. This testing, also known as intermediate level fault current testing, now includes additional test currents of 10A, 100A, 500A, and 1,000A, found in Table 37.2 of the standard. The overvoltage is to be applied for 7 hours, until current to the TVSS attain equilibrium, or until the TVSS become disconnected. This more comprehensive range of testing in the UL requirements reduces the system vulnerability to catastrophic failures caused by conditions such as "thermal runaway".

At GE, we have taken our world class design, using patented thermal fusing, and found a way to make it even better. Through the use of a new, patented Thermally Protected Metal Oxide Varistor (TPMOV), we have improved on an already excellent design. This new TPMOV was designed to assist in eliminating the hazards that may be associated with certain failure characteristics of Metal Oxide Varistors (MOVs).

All TVSS products integrally mounted to GE Distribution Equipment and box extension style convert to the new TPMOV design. All wallmount (stand alone) style TVSS products will be available in the existing configuration as well as the new design. The previously existing product is compliant with the new standard only if it is installed downstream of a dedicated breaker. If the customer does not plan to install the TVSS unit downstream of a breaker (i.e. mount directly to the bus), then they must order the new product with the enhanced thermal protection (TPMOV) in order to be UL compliant.

GE has a complete offering in full compliance with the changes and exceeds the testing requirements. If you have questions concerning this new standard or how it impacts you, please call your local GE account manager.