# The difference between cCSAus Certified and cULus Listed? There is none.



There is a widespread misconception among electrical contractors in the United States that the "CSA-us" marking is somehow less significant than one that reads "UL Listed". The fact is, Underwriters Laboratories (UL) and CSA Group (CSA) are both Nationally Recognized Testing Laboratories (NRTL) that test to the same harmonized Canadian Electrical Code (CEC) and National Electrical Code (NEC) standards, making their certifications virtually interchangeable.

The presence of a CSA mark with a "US" subscript indicates that CSA has tested and evaluated the product for compliance to the appropriate American National Standard, and therefore meets the requirement as "listed" in accordance with National Fire Protection Association® (NFPA) standard NFPA 70®, The National Electrical Code® (NEC). Whether a product carries the "UL Listed" or "CSA-us" mark, an end-user in the United States should have complete confidence in its compliance and performance.

In this brief we will look at:

- The role of Sections 90.7 and 110.3 of the NEC in defining the parameters for independent testing labs, including CSA and UL, for judging the suitability of electrical equipment to the appropriate American National Standards for the equipment.
- Variations and meanings of CSA and UL certification marks listed or certified to applicable U.S., Canadian and/or international standards including ANSI, IEC, NFS, CSA and others.
- The importance of CSA Group being a Nationally Recognized Test Lab (NRTL) recognized by the Occupational Safety & Health Adminstration (OSHA).



## What is the U.S. Safety Certification Process?

In the United States the safe installation of electrical products is assured by conformance to NFPA 70, the National Electrical Code (NEC). Although the NEC itself is not a mandatory standard, it is adopted as law in almost every state or locality in the U.S. The enforcement of the NEC is delegated to the local Authority Having Jurisdiction (AHJ) such as a building inspector or fire marshal.

Sections 90.7 and 110.3 of the NEC define the parameters for independent testing labs to judge the suitability of electrical equipment to the

appropriate American National Standards for the equipment. There are several sections of the NEC that require certain types of electrical equipment to be listed, including Section 410.6 which states that all luminaires must be listed. There are no sections of the NEC requiring products to be UL listed.

Many code experts believe the NEC intentionally left the definition for "Listed" generic to allow for competition between third-party certification bodies and to prevent monopolization of the product safety certification market.

# American National Standards Development

- Standards committee and supporting Standards Writing Organizations develop standards
- OSHA and other bodies recognize testing agencies to national standards

# **Testing & Certification Process**

- Manufacturers design products to the American National Standards
- Recognized testing laboratories test products to American National Standards
- Nationally Recognized
   Testing Laboratories issue the
   applicable certification mark

Certified Products Enter the U.S. Marketplace

#### **SDO's and Certification Bodies**

Standards Development Organizations (SDOs) create the actual standards that electrical products are tested against to ensure safe operation. The standards are developed by committees who's members may include employees of product manufacturers and testing laboratories.

In the U.S., the American National Standards Institute (ANSI) is the authority for publishing the American National Standards for electrical products. ANSI assigned SDO status to UL to develop these standards.

Likewise, in Canada, the Standards Council of Canada granted SDO status to CSA Group for the development of the Canadian National Standards, which also recognizes UL as an accredited Certification Body who can test and list product to Canadian standards.

Although UL and CSA act as both an SDO and thirdparty Certification Body, there is no requirement for the certification of a product to be performed by the SDO who is responsible for overseeing the development of the standard. Any accredited NRTL can be used by a manufacturer to evaluate the product.



#### **UL Listed and CSA Certification Marks**

There is a misconception that CSA certified products are only for use in Canada, and cannot be sold or installed in the U.S., while UL Listed products are for the United States and global use. Depending on certification, **both CSA and UL products can be used locally and internationally**.



# OSHA Recognizes CSA Group as Nationally Recognized Testing Laboratory

CSA Group, an independent third-party agency hired by Emerson to test and certify many of its products, was recognized in 1992 by the U.S. Occupational Safety & Health Adminstration as a Nationally Recognized Testing Laboratory (NRTL). Like UL and other NRTLs, CSA Group tests and certifies many U.S. leading brands to confirm that they comply with applicable American National Standards written by ANSI, ASME, ASTM, ASFE, UL, CSA, NSF and others. All OSHA recognized labs conduct testing using the same procedures against the same sets of stardards and codes, regardless of who authored or published the standards or codes. Because several laboratories have earned OSHA recognition, manufacturers are provided with the flexibility to choose the testing partner most capable of meeting their timing, service or other requirements in an economical manner.

For access to the broadest range of products available, it is important when writing product specifications or RFQs to allow for inclussion of all products tested and certified by any NRTL, as defined by OSHA 1901.7.



Shows product is tested by UL and meets Standards of Safety for the U.S.



Shows product is tested by CSA and meets Standards of Safety for the U.S.



Shows product is tested by UL and meets applicable standards for Canada.



Shows product is tested by CSA and meets applicable standards for Canada.



Shows product tested by UL to meet U.S. and Canadian Standards.



Shows product tested by CSA to meet U.S. and Canadian Standards.



Shows components
tested by UL
to meet standards for
components only,
where some conditions
exist, sold in the
U.S. and Canada.



Shows components tested by CSA to meet standards for components only, where some conditions exist, sold in the U.S. and Canada.



## CSA does not mean "Canada Only"

Some specifiers, installers and purchasing agents may mistakenly believe that only the laboratory whose company's name appears as the SDO on a particular standard may perform product testing against that standard. Actually, product manufacturers are not required to contract with the SDO, and many do not. The publishing of standards and the testing of products are completely different functions. Standards are available to any qualified laboratory selected by a manufacturer to test and certify the product before it goes to market. Moreover, all NRTLs use the same testing standards regardless of which lab

performed the tests. This leveling of the playing field creates a competitive marketplace that helps manufacturers get their products to endusers faster and more economically — while still ensuring that they are subjected to rigorous testing to American National Standards. Therefore, if the specifier in the United States narrows down an RFQ to only "UL Listed" rather than include "CSAus" they are inadvertently eliminating excellent products from consideration and limiting the brands, models, delivery, cost and other critical features available to them.

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