

Third-party certification of electrical equipment

**Why is it required?**

Federal regulations require equipment in a workplace must bear the mark of a Nationally Recognized Testing Laboratory. (NFPA 70, NFPA 790/791)

**What does the code state?**

2017 NEC, Article 110.3 requires equipment to be approved for the United States market. Generally, this is left up to a national recognized testing laboratory (NRTL) approved by OSHA as part of their third party certification program. Once equipment has been built and submitted for listing to a NRTL, the certification process begins. The equipment is put through rigorous safety testing to ensure that the end product has met all of the criteria required in the UL standard. After passing all required tests, the equipment manufacturer is given the approval to mark and apply listing labels.

**Does an assembly of Listed components make equipment Listed?**

No, an assembly of Listed components does not make it Listed. It is not uncommon to find major non-conformances in equipment which are built entirely with UL approved components. Each component must be assessed for their application (conditions of acceptability). Each product standard is different. A component that is suitable for use in lab equipment may not be suitable for use in industrial or medical equipment.

**What markings are NOT approved or Inadequate?**



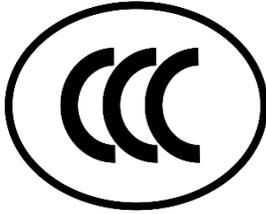
CE is an approval mark for the European Economic Area

**Why is CE certification not acceptable?**

CE is a manufacture’s self-declaration in most cases. Third-party involvement is not required. There is not factory surveillance. Based on European, rather than American standards.



The GS mark is a German Quality System mark. On its own, it doesn't meet European requirements.



CCC (China Compulsory Certificate) is a marking system for product safety in China.



The Federal Communications Commission regulates products for compliance to EMC (Electromagnetic Compatibility) and Wireless requirements. It doesn't address product safety.



UKCA marking was developed for products imported to the UK. This was required because after the UK left the European Union, they were prohibited from using the CE mark.



Regulatory Compliance Mark (RCM) Mark for Australia & New Zealand.



Eurasian Conformity Mark (EAC). Used in Russia, Belarus, Kazakhstan, Armenia and Kyrgyzstan.



VDE is a German lab and not an NRTL (Nationally Recognized Testing Laboratory).

**What are legitimate markings approved by Nationally Recognized Testing Laboratory?**

OSHA list of Current Nationally Recognized Testing Laboratories (NRTL).

<https://www.osha.gov/nationally-recognized-testing-laboratory-program/current-list-of-nrtls>