

UNDERWRITERS LABORATORIES INC. CERTIFICATION REQUIREMENT DECISION

This Certification Requirement Decision is prepared by UL LLC. It is normative for the applicable UL Product Certification Program(s); however, it is currently not part of the UL Standard(s) referenced below.

Product Category (CCN): SHZZ, SHMR

Standard Number: UL 60335-2-24

Standard Title: Standard for Household and Similar Electrical Appliances - Safety - Part 2-24: Particular Requirements for Refrigerating Appliances, Ice-Cream Appliances and Ice-Makers

Edition Date: April 28, 2017

Edition Number: 2

Section / Paragraph Reference: 22.118DV

Subject: Refrigerant Tubing Protection

DECISION:

22.118DV D2 *Addition of Clauses 22.118DV.1 and 22.118DV.2 to the Part 2:*

22.118DV.1 Compression-type appliances which use flammable refrigerants shall not be constructed with refrigerant tubing on the exterior of the refrigerator such that it could be grasped or handled during moving of the appliance. Refrigerant tubing on a refrigerator employing a flammable refrigerant shall be protected or enclosed to avoid mechanical damage and damage that could occur during moving of the product.

22.118DV.1.1 Refrigerant tubing located within the confines of the cabinet and tubing that does not protrude from the compressor compartment is considered to be protected from mechanical damage.

22.118DV.1.2 A static condenser coil mounted on the outside of a refrigerator is considered to be protected against mechanical damage if it complies with all of the following:

- The return bends of the condenser are covered such that they cannot be grasped or handled during moving of the product. The return bends are considered to be adequately covered if they cannot be grasped with test probe B applied with a force of 20 N.
- The other edges of the condenser are covered or secured to prevent damage during moving of the product. They are considered adequately secured if they meet the pull force requirements of clause 22.11 without deformation of the tubing or loosening of the condenser from the refrigerator.
- All other tubing in the condenser is adequately protected by the fill wire. The tubing is considered adequately protected if any single tube cannot be grasped with test probe B applied with a force of 20 N.

RATIONALE FOR DECISION:

The flammable refrigerant requirements in UL 250 and UL 60335-2-24 1st edition were written such that refrigeration tubing should be protected to the greatest extent possible. This includes the protection of refrigerant tubing on the exterior of the refrigerator as well as the interior. Clause 22.117DV.3 of Edition 1 contained relatively clear requirements regarding the exterior tubing. Clause 22.118DV.1 of the 2nd edition of UL 60335-2-24 is not very clear as to how this protection is to be achieved, so it has been re-written for clarity.

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