



**CSA C22.2 No. 61010-2-012:19**

**Safety requirements for electrical equipment for measurement, control, and laboratory use — Part 2-012:  
Particular requirements for climatic and environmental testing and other temperature conditioning  
equipment**

(IEC 61010-2-012:2019, MOD)

**CSA C22.2 n° 61010-2-012:19**

**Règles de sécurité pour appareils électriques de mesurage, de régulation et de laboratoire — Partie 2-012 :  
Exigences particulières pour les appareils d'essais climatiques et d'environnement, et autres appareils de  
conditionnement de température**

(IEC 61010-2-012:2019, MOD)



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**Safety requirements for electrical equipment for measurement, control, and laboratory use –**

**Part 2-012: Particular requirements for climatic and environmental testing and other temperature conditioning equipment**

**Règles de sécurité pour appareils électriques de mesurage, de régulation et de laboratoire –**

**Partie 2-012: Exigences particulières pour les appareils d'essais climatiques et d'environnement, et autres appareils de conditionnement de température**

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## SAFETY REQUIREMENTS FOR ELECTRICAL EQUIPMENT FOR MEASUREMENT, CONTROL AND LABORATORY USE –

### Part 2-012: Particular requirements for climatic and environmental testing and other temperature conditioning equipment

#### 1 Scope and object

This clause of Part 1 is applicable except as follows:

##### 1.1.1 Equipment included in scope

*Replacement:*

*Replace the second paragraph by the following:*

This part of IEC 61010 specifies safety requirements for electrical equipment and its accessories within the categories a) through c), wherever it is intended to be used, whenever that equipment incorporates one or more of the following characteristics:

- A REFRIGERATING SYSTEM that is acted on or impacted by an integral heating function such that the combined heating and REFRIGERATING SYSTEM generates additional and/or more severe HAZARDS than those for the two systems if treated separately.
- The materials being treated in the intended application introduce significant heat into the REFRIGERATING SYSTEM, so that the REFRIGERATING SYSTEM in the application yields additional and/or more severe HAZARDS than those for the REFRIGERATING SYSTEM if operated at the maximum RATED ambient temperature alone.
- An irradiation function for the materials being treated presenting additional HAZARDS.
- A function to expose the materials being treated to excessive humidity, carbon dioxide, salt mist, or other substances which can result in additional HAZARDS.
- A function of MECHANICAL MOVEMENT presenting additional HAZARDS.
- Provision for an OPERATOR to walk in to the operating area to load or unload the materials being treated.

*Addition:*

*Add the following text after the last paragraph:*

NOTE 101 Examples of such equipment include environmental testing and plant growth TEST CHAMBERS, refrigerating CIRCULATORS which incorporate heating, and recirculating coolers for extracting heat.

It is possible that all or part of the equipment falls within the scope of one or more other Part 2 standards of IEC 61010 as well as within the scope of this standard. In that case, the requirements of those other Part 2 standards also apply. This document is intended for application when one or more of the additional HAZARDS described in the above dashed listed items are introduced. However, when the equipment incorporates only a REFRIGERATING SYSTEM or only a heating function or a combination of the two without introducing the additional HAZARDS described in the above list, then IEC 61010-2-011 or IEC 61010-2-010 or both, as appropriate, apply instead of this Part 2-012.

See further information in the flow chart (Figure 102) for selection process and guidance in the Introduction.