

## Standard Information

**Standard Number:** CSA C22.2 No. 140.3

**Standard Name:** Refrigerant-Containing Components for Use in Electrical Equipment

**Standard Edition and Issue Date:** 3<sup>rd</sup> Edition Dated March 1, 2015

**Date of Previous Revision to Standard:** 2<sup>nd</sup> Edition Reaffirmed 2014

## Effective Date of New/Revised Requirements

Effective Date (see Schedule below): **January 1, 2017**

## Impact, Overview, Fees and Action Required

**Impact Statement:** A review of all Listing Reports is necessary to determine which products comply with new/revised requirements and which products will require re-evaluation. **NOTE:** Effective immediately, this revised standard will be exclusively used for evaluation of new products unless the Applicant requests in writing that current requirements be used along with their understanding that their listings will be withdrawn on Effective Date noted above, unless the product is found to comply with new/revised requirements.

**Overview of Changes:** This revision is being issued to include new construction requirements for components intended for use with carbon dioxide and pressure test requirement for tubing. Specific details of new/revised requirements are found in table below.

**If the applicable requirements noted in the table are not described in your report(s), these requirements will need to be confirmed as met and added to your report(s) such as markings, instructions, test results, etc. (as required).**

**Schedule:** So that shipping of products with Listing Marks will not be interrupted, an **approximate** schedule has been established to ensure Listing Reports are found compliant by Effective Date:

- May 2, 2016 = 8 Month Report Review – Intertek will review all Reports. Update if compliance is verified or issue Findings Letter/Quote for any re-evaluations needed
- July 1, 2016 = 6 Month Quote Cut-off – Quotes returned for necessary re-evaluations
- December 1, 2016 = 30 Day Warning – Client advised of all non-compliant Reports to be Suspended
- **January 1, 2017** = Effective Date – ATM Suspended for all non-compliant Reports

**Fees:** An initial review of Listing Report (s) will be covered by a direct billing project and will be invoiced at not more than \$1000 per report.

### Client Action Required:

**Information** – To assist our Engineer with review of your Listing Reports, please submit technical information in response to the new/revised paragraphs noted in the attached or explain why these new/revised requirements do not apply to your product (s).

**Current Listings Not Active? – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records. We will do this at no charge as long as Intertek is notified in writing prior to the review of your reports.**

## Description of New/Revised Technical Requirements

Clause	Verdict	Comment
5	Info	<b>Construction</b>
5.6	Info	<b>Pressure relief</b>
5.6.3		New clause added;  A component intended for use with carbon dioxide (R744) as a refrigerant, meeting the requirements of Clause 5.11.1.1(c) shall be protected by a pressure relief device or fusible plug or shall have provision (e.g., a fitting) for the installation of a pressure relief device or fusible plug.
5.11	Info	<b>Strength</b>
		<i>Additions to existing requirements are <u>underlined</u> and deletions are shown <del>lined-out</del> below.</i>  Refrigerant-containing components or parts shall be constructed to withstand the following: a) for high-side parts, a pressure equal to the greater of i) five times the design pressure marked on the part or component; or ii) five times the minimum high-side design pressure specified in CSA B52;  b) for low-side parts, a pressure equal to the greatest of i) <del>five</del> <u>three</u> times the design pressure marked on the part or component; ii) <del>five</del> <u>three</u> times the minimum low-side design pressure specified in CSA B52; or iii) <del>five</del> <u>three</u> times the vapour pressure of the refrigerant at <del>24.4</del> <u>27</u> °C (80.6°F); and  <u>c) for high-side parts intended for use with carbon dioxide (R744) in transcritical state, or low-side parts intended for use of carbon dioxide in a secondary loop or cascade system:</u> i) <u>three</u> times the design pressure marked on the part or component; ii) <u>three</u> times the minimum low-side design pressure specified in CSA B52; or iii) <u>three</u> times the vapour pressure of the refrigerant at <u>27 °C (80.6°F)</u> .
6	Info	<b>Pressure tests</b>
6.1.5		<i>Clause has been deleted;</i>  Components made from continuous tubing or lengths of tubing having telescoped joints shall be considered acceptable without testing if the tubing meets the requirements of Clause 5.4.1.
		<b>CUSTOMERS PLEASE NOTE:</b> This Table and column "Verdict" can be used in determining how your current or future production is or will be in compliance with new/revised requirements.