STANDARDS UPDATE NOTICE (SUN)
ISSUED: August 16, 2018

STANDARD INFORMATION

Standard Number: CSA C22.2 No. 274
Standard Name: Adjustable Speed Drives
Standard Edition and Issue Date: 2nd Edition Dated April 1, 2017
Date of Revision: April 1, 2017
Date of Previous Revision of Standard: 1st Edition Dated March 2013, Revised June 2015

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **May 1, 2020**

IMPACT, OVERVIEW, 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requests in writing that current requirements be used along with their understanding that their listings will be withdrawn on Effective Date noted above, unless the product is found to comply with new/revised requirements.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:

- Updates to the Scope to deal with integrated motor/drive combinations
- Expansion of the contactor overload requirements
- Information on testing when surge arresters are present
- Additional requirements for mechanical interlocks

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).

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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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.

STANDARD INFORMATION

CLAUSE	VERDICT	COMMENT
		Additions to existing requirements are underlined and deletions are shown ~~lined out~~ below.
1	Info	**Scope**
1.2		This Standard applies to the following: a) power conversion, drive control equipment and interface circuits; b) servo drives and integral servo drive/motor combinations; and c) integrated ASDs (adjustable speed drives) where the motor and ASD are mechanically integrated into a single unit.
1.7		This Standard does not apply to a) traction and electric vehicle drives; b) motors as covered by CSA C22.2 No. 100; c) driven equipment; d) cord connected drives; and e) ~~integrated ASDsre (adjustable speed drives) where the motor and ASD are~~ the motor portion of a motor and ASD system that is mechanically integrated into a single unit.
4	Info	**Construction**
4.13	Info	**Electrical spacings**
4.13.6		For reduced spacings in the primary circuits, surge suppressors of the metal oxide varistor type shall not be used as the sole means for overvoltage protection unless failure of the MOV shall cause the circuit protected by the MOV to be automatically de-energized.
4.13.7		***New clause added;*** Transient suppression devices (e.g., varistors or transient voltage surge protectors) shall be evaluated in accordance with the component requirements in CSA C22.2 No. 269.5.
4.13.13		Line connected transient suppression circuits and suppression devices shall be tested in accordance with the test procedure specified in Clause 6.19, except that the crest value shall be the next higher impulse withstand voltage than the applicable “rated impulse voltage withstand voltage peak” identified in Table 40. When the applicable “rated impulse withstand voltage peak” is 16.0 kV, the crest value shall be 20.0 kV. Metal oxide varistors that are not integral to the ASD shall not be installed.

4.13.37		Except as required by Clauses 4.13.39 and 4.13.40, a ~~dielectric voltage-withstand~~ dielectric strength test and impulse voltage test may be used to verify minimum acceptable through-air spacings in lieu of physical measurements. The test shall be conducted in accordance with Clause 6.3 and Clause 6.20 using the test voltage values corresponding to the required through-air spacing specified in Table 29 or 31.
6	Info	**Testing**
6.17	Info	**Contactor overload**
6.17.1		**New requirement added;** Except where indicated in Clause 6.17.2, a contactor shall be rated and approved for the maximum current, power, and voltage that the particular circuit is capable of producing and shall be capable of making and breaking the load current of the circuit.
6.17.2		***New clause added;*** A contactor not rated for the maximum current and having the coil circuit interlocked or sequenced in such a way that, in normal operation, the contactor does not make or break load current, ~~shall be tested at the maximum current, power, and voltage that the drive is capable of producing. Five operations shall be conducted~~. shall be tested at the maximum overload current, power, and voltage that the particular circuit is capable of producing. Five operations shall be conducted. The cycle time for ac circuits shall be a minimum four electrical cycles on and a maximum 240 seconds off. The electrical cycles shall be based on the 72minimum operating frequency of the circuit involved. For dc circuits, the on time shall be at least the larger of Item a) or b), as follows: a) the time it takes for the current to reach the maximum possible overload value; or b) four electrical cycles of the ac mains that the dc source is derived from (if applicable), where the electrical cycles are based on the minimum operating frequency of the ac mains. For dc circuits, the off time shall be a maximum 240 seconds.
6.21	Info	**Isolating means and interlock integrity**

6.21.6	***New clause added;*** If isolation means are not provided, mechanical interlocks shall be tested 10 times by attempting to gain access to all high voltage compartments, operate electrical circuits, or any other operation that is meant to be prevented by the interlocking arrangement. After the test, it shall be confirmed that a) all interlock functions are fully operative; and b) interlocks are in substantially the same mechanical condition as the beginning of the test.
	CUSTOMERS PLEASE NOTE: 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.