



Standards Update Notice (SUN)

Issued: March 24, 2017

Standard Information

Standard Number: UL 347 / CSA C22.2 No. 253 / NMX-J-564/106-ANCE

Standard Name: Standard for Safety for Medium-Voltage AC Contactors, Controllers, and Control Centers

Standard Edition and Issue Date:

UL 347 6th Edition Dated January 29, 2016

CSA C22.2 No. 253 2nd Edition Dated January 29, 2016

NMX-J-564/106-ANCE 2nd Edition Dated January 29, 2016

Date of Issue: January 29, 2016

Date of Previous Revision of Standard: November 10, 2009

Effective Date of New/Revised Requirements

Effective Date: December 15, 2018

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requests in writing that current requirements be used along with their understanding that their listings will be withdrawn on Effective Date noted above, unless the product is found to comply with new/revised requirements.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: Changes to the certification requirements for Medium-Voltage AC Contactors, Controllers, and Control Centers and related equipment. 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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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.



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Description of New/Revised Technical Requirements

Clause	Verdict	Comment
1.1	Info	Scope increased from previous edition to cover products up to 15kV and to include requirements for reduced-voltage solid state controllers.
2.2.1	Info	Previous altitude categories of 2000m and 3000m simplified to a more general altitude in excess of 1000m.
Section 3	Info	Added references to International Electrotechnical Vocabulary designations. Some minor rewording of several definitions not affecting their meanings. More significant definition changes noted below
3.1.203		Lower range of "Low Voltage" modified for Canada from 50 to 30 volts.
3.202	Info	Foldback action: a protective feature (a type of overload protection) that may be incorporated in reduced-voltage solid-state controllers. When the load attempts to draw excessive overcurrent through the solid-state portion of the controller, this action reduces both output voltage and current to lower values so as to avoid damage to the solid-state portion of the controller.
3.4.113	Info	Class C1: A device with a low probability of restrike during capacitive current breaking as demonstrated by the type tests in 6.109.
3.4.114	Info	Class C2: A device with a very low probability of restrike during capacitive current breaking as demonstrated by the type tests in 6.109.
3.4.202	Info	reduced-voltage solid state controller: A controller that includes solid state devices connected in series with the stator winding of an alternating current motor to furnish reduced voltage for starting. NOTE: It might or might not include the necessary mechanical switching devices to provide a bypass function.
3.4.203	Info	automatic bypass function: A circuit that automatically shunts the solid state devices to provide full voltage to the output terminals. NOTE: An automatic bypass function might or might not include provisions for automatic return of control to the solid state devices.
4		Controller and Control Center Ratings and Characteristics
4.1		(New CAN and US only) Rated maximum voltage (Ur) The rated maximum voltage indicates the upper limit of the highest voltage of the system voltage for which the device or assembly is intended. Standard values of rated voltages are 2.5 kV, 3.6 kV, 5.0 kV, 7.2 kV, 12.0 kV and 15.0 kV. NOTE: Standard values of rated voltage in Mexico are 3.6 kV, 5.0 kV, and 7.2 kV.
4.112		(New Section) Rated capacitive switching currents
4.204		Revisions to starting duty ratings for reduced voltage starters. Removal of peak temperature requirement. Addition of requirements for solid state starters as either medium duty or optional duty.



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5.3.208		Connection of conductor shields There shall be provisions for bonding of conductor shields to the ground bus. These provisions shall be located: a) Such that the shield bonding conductor need not exceed 1m (3.3 ft), and b) In the same compartment as the wiring terminal for the associated shielded conductors.
5.10.202 (i)		Removed maximum ambient temperature (if greater than 40C) and added DANGER marking for doors lacking interlocks.
5.19		Added requirement for X-ray emission for devices with vacuum interrupters.
5.102.204		Added allowances for situations where door may not be interlocked if additional requirements are met. Additional requirement that doors must open to minimum of 90 degrees.
5.102.206	Info	Clarification of barrier requirement behind ventilation openings.
5.203 (j) through (o)		Added protective features requirements for reduced-voltage controllers, solid state controllers and voltage dividers.
5.205.4		Added requirement for equipment wiring above 7200V.
5.206.2		Previous Connectors requirements revised as Wiring Terminals. Previous requirements now identified for low voltage conductors. Additional requirements added for medium voltage conductors.
5.209	Info	Added allowance for substitution of insulating materials as permitted.
6.1	Info	Added note that Type Tests may be used for other than preferred ratings.
6.2	Info	Added note for test for products incorporating static switching elements which may be bypassed.
6.2.203		Added partial discharge test for controllers in excess of 7.2kV.
6.4.2		Added test for measurement of resistance of the controller.
6.5.2		Added compliance requirement for equipment with solid state switching elements.
5.5.3.204		Added requirements for measurement of temperatures for solid state equipment.
6.5.5.104		Revised test requirements for temperature rise during starting of motor starting autotransformers and reactors.
6.5.5.201		New test requirements for temperature rise for reduced-voltage solid state starters.
6.101.2	Info	Test compliance requirements clarified.
6.102.202		Added Make and Break test procedure for reduced-voltage solid state controllers.
Section 6.103		Overload test requirements revised to segregate test parameters between electromagnetic controllers and reduced-voltage solid state controllers.
Section 6.104		Revisions to test procedure to allow for higher rated voltages and revisions to test current values. Added additional testing requirements for reduced-voltage solid state controllers in Section 6.104.205.2. Revisions to Interrupting performance criteria to distinguish between electromagnetic and reduced-voltage solid state controllers.
Section 6.109		Added new test requirements for capacitive current switching tests for high voltage switchgear and controlgear adopted and revised from IEC62271-100-ed2.



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Clause	Verdict	Comment
Section 6.202		Revised requirements to distinguish between electromagnetic and reduced-voltage solid state controllers.
Table 1	Info	Added table entries for voltages in excess of 7.2kV.
Table 5	Info	Added table entries for voltages in excess of 7.2kV.
Table 6		Table revised to add Sequence 5 reflecting revised and updated test requirements noted above.
Figures 1 and 2		Figures revised and segregated between electromagnetic (Fig. 1) and reduced-voltage solid state (Fig. 2) controllers.
Annex A		Revisions to table to reflect updated references and editions. C22.2 No. 60947 (series) added to Item 4. C22.2 No. 31 replaced previous in Item 16. Added new items 23-27.
Annex D		Revisions to table to reflect updated references and editions. Removed items 25-27.
Annex E		New Normative Annex applicable to voltage dividers used in medium voltage controllers.
		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.