

Standard Information

Standard Number: UL 916

Standard Name: Energy Management Equipment

Standard Edition and Issue Date: 4th Edition Dated December 17, 2007

Date of Revision: August 11, 2014

Date of Previous Revision to Standard: 4th Edition Dated December 19, 2013

Effective Date of New/Revised Requirements

Effective Date (see Schedule below): **September 11, 2015**

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requests in writing that current requirements be used along with their understanding that their listings will be withdrawn on Effective Date noted above, unless the product is found to comply with new/revised requirements.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 to UL 916 is being issued to add requirements for the Test Method and Simulated Electrical Loads for Electronic Ballast, CFL and LED Driver Ratings from NEMA 410-2011. Specific details of new/revised requirements are found in table below.

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:

- January 12, 2015 = 8 Month Report Review – Intertek will review all Reports. Update if compliance is verified or issue Findings Letter/Quote for any re-evaluations needed
- March 11, 2015 = 6 Month Quote Cut-off – Quotes returned for necessary re-evaluations
- August 12, 2015 = 30 Day Warning – Client advised of all non-compliant Reports to be Suspended
- **September 11, 2015** = 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 – *Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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																				
48.1		<p>Added requirements to the Endurance Test <i>Note: Additions to existing requirements are <u>underlined</u></i></p> <p>A switch is to be operated manually, by means of a machine, or by automatic means for the number of cycles specified in Table 48.1, and at the rate specified unless the device requires a longer time to complete a cycle of operation. If an electrical load is involved, and except as otherwise noted, a switch shall make and break its rated current at the voltage specified in Table 38.1. Switch contacts for control of a motor are to be tested with full-load motor current; if the switch is rated in horsepower instead of full-load motor current, the latter value shall be determined from Table 47.2 or 47.3, as applicable. If the switch contacts control a direct-current motor, and the switch normally will make but not break the motor circuit under locked-rotor conditions, the potential of the test circuit is to be 50 percent of the value specified in Table 38.1. <u>For a device having electronic ballast, self-ballasted LED and CFL, or LED driver load rating, the load characteristics are to be in accordance with Section 48A.</u> There shall be no electrical or mechanical breakdown of the device, nor undue burning, pitting, or welding of the contacts.</p>																				
Table 48.1		<p>New added requirements to the number of cycles for endurance test</p> <table><tr><th rowspan="2">Types of devices</th><th colspan="6">Number of cycles of operation^a</th></tr><tr><th>With current</th><th>Without current</th><th>First</th><th>Maximum cycles per minute</th><th>Last</th><th>Maximum cycles per minute</th></tr><tr><td>Electronic ballast, self ballasted LED and Compact Fluorescent Lamps, LED drivers and similar loads with capacitive load characteristics</td><td>6,000</td><td>—</td><td>6,000</td><td>6</td><td>—</td><td>—</td></tr></table> <p>^a Magnetic, manual and motor-operated switches, or the like, and switches that snap with lost motion and do not creep, may be tested at the rate of 6 cycles per minute.</p>	Types of devices	Number of cycles of operation ^a						With current	Without current	First	Maximum cycles per minute	Last	Maximum cycles per minute	Electronic ballast, self ballasted LED and Compact Fluorescent Lamps, LED drivers and similar loads with capacitive load characteristics	6,000	—	6,000	6	—	—
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48A	Info	New added section: Electronic Ballast, CFLs and LED Driver Rated Controls																				
48A.1		A control intended for use with electronic ballasts, self ballasted LED and Compact Fluorescent Lamps, LED drivers and similar loads with capacitive load characteristics, having a rated current (steady state current) and rated voltage in accordance with Table 48.2 shall be marked in accordance with 69.20.																				
48A.2		The synthetic load described in 48A.3 and 48A.4 shall be used as the load for testing. The endurance test shall be completed with that load.																				
48A.3		The series coil values must be adjusted based on the input line characteristics to achieve the peak currents listed in Table 48.2. The series coil shall be sized such that it does not saturate during testing and shall be able to handle the resulting power dissipation with less than 10°C temperature rise. Peak current and pulse width are illustrated in Figure 48.2.																				
48A.4		The circuit shall provide a method to discharge the capacitor bank in between test cycles without influencing the performance of the device under test. This is accomplished by S2 and R2 in Figure 48.1. S2 should be switched alternately with S1 and R2 should be sized to allow for complete discharge of C during the period that S1 is open.																				



Standards Update Notice (SUN)

Issued: December 19, 2014

Clause	Verdict	Comment
69.20		New added Marking With reference to Section 48A, a control intended for general control of electronic ballasts, self ballasted Compact Fluorescent Lamps and LED Lamps and LED drivers, shall be marked with the statement "For Control of Electronic Ballast, CFLs, LED, and LED Lamps" or the equivalent. The marking shall be on the control.
		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.