

STANDARD INFORMATION

Standard Number: UL Subject 111
Standard Name: Outline of Investigation for Multioutlet Assemblies
Standard Edition and Issue Date: 5th Edition dated March 28, 2017
Date of Revision: March 28, 2017
Date of Previous Revision of Standard: June 26, 2015

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **September 28, 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requests in writing that current requirements be used along with their understanding that their listings will be withdrawn on Effective Date noted above, unless the product is found to comply with new/revised requirements.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:

- Addition of requirements for Motorized Multioutlet Assemblies
- Addition of requirements for incomplete multioutlet assemblies
- New test for strain relief cords

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:

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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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
		<i>Additions to existing requirements are <u>underlined</u> and deletions are shown lined out below.</i>
2	Info	General
2.1	Info	Components
		<i>New clause added;</i>
2.2.13		A Multioutlet Assembly that employs an electromagnetic interference filter shall comply with the performance and marking requirements of the Standard for Electromagnetic Interference Filters, UL 1283. <i>New clause added;</i>
2.1.14		A Multioutlet Assembly that employs a surge protective device shall comply with the performance and marking requirements of the following for Type 2 and 3 SPDs that are contained in the Standard for Surge Protective Devices, UL 1449. <i>New clause added;</i>
2.1.15		Telephone equipment and communication circuit protectors included in a Multioutlet Assembly shall comply with the requirements in the: a) Standard for Information Technology Equipment – Safety – Part 1: General Requirements, UL 60950-1 and b) Standard for Secondary Protectors for Communications Circuits, UL 497A. <i>New clause added;</i>
2.1.16		A GFCI used in a Multioutlet Assembly shall comply with the Standard for Ground-Fault Circuit Interrupters, UL 943.
	Info	CONSTRUCTION
4	Info	General
		<i>New clause added;</i>
4.13		A Multioutlet Assembly that is not completely assembled at the manufacturing site shall be marked as specified in Section 35.5, Marking incomplete multioutlet assemblies.



CLAUSE	VERDICT	COMMENT
5	Info	Assembly
		<i>New clause added;</i>
		A Multioutlet Assembly shall be provided in one of the following configurations:
5.1		<p>a) A raceway with all conductors and devices factory installed and all terminations completed at the factory except for the field wiring connections.</p> <p>b) A raceway or a raceway with barriers completed as specified in a) above and the remaining raceways empty for field installed conductors and devices.</p> <p>c) A raceway or a raceway with barriers or dividers with an overall enclosure intended for field installation of a Multioutlet Assembly wiring kit. The cover and wiring kit may be shipped separately from the raceway base.</p> <p>d) A raceway consisting of multiple sections or lengths intended for field assembly into a continuous Multioutlet Assembly.</p> <p>e) A raceway provided in any combination of (a) – (d) above.</p>
7	Info	Electrical and Fire Enclosures
7.5	Info	Covers
		<i>New clause added;</i>
7.5.5		Multioutlet Assembly covers shall be constructed such that the use of a tool (such as the prying action of a screwdriver) or two simultaneous deliberate actions are necessary for their removal and for gaining access to internal areas of the Multioutlet Assembly after installation.
7.6	Info	Partitions
		<i>New clause added;</i>
7.6.5		A metallic partition shall have a minimum thickness that complies with Tables 7.1 and 7.2.
8	Info	Electrical Construction
8.2	Info	Grounding
8.2.10		A ferrous metal part in a bonding/grounding path shall be protected against corrosion by powder coating, enameling, galvanizing, plating, or equivalent means. <u>Nonconductive coatings (such as paint, lacquer and enamel) on equipment to be bonded/grounded shall be removed from threads and other contact surfaces to ensure good electrical continuity or be connected by means of fittings designed so as to make such removal unnecessary.</u>



CLAUSE	VERDICT	COMMENT
8.14	Info	Supplementary
8.14.1		<p>Supplementary Protectors are optional. When supplementary overcurrent protection is provided the supplementary protector shall comply with the requirements in the Standard for Supplementary Protectors for Use in Electrical Equipment, UL 1077. The supplementary protection device shall comply with the following:</p> <ul style="list-style-type: none">a) Be suitable for General Industrial use;b) Be rated for the maximum voltage of the Multioutlet Assembly;c) The trip current shall be a minimum 125 percent of the current rating of the maximum rated outlet protected;d) The overload rating shall be 6 times the ac current rating;e) The supplementary protection device shall be suitably rated for a fault current of not less than that indicated in Table 8.6.f) <u>Supplementary protectors with an Application Class of C2, C1A, C1, or supplementary protectors without an Application Class shall be subjected to short-circuit testing without a series fuse.</u>g) Be of the automatic-trip-free, manual-reset type;h) <u>The supplementary protector is not used for branch circuit overcurrent protection.</u>
8.16	Info	Laser (including laser diodes) and LEDs
8.16.3		<p><i>New clause added;</i></p> <p>Except as permitted below, equipment shall be classified and labelled according to:</p> <ul style="list-style-type: none">a) Safety of laser products – Part 1: Equipment classification and requirements, IEC 60825-1;b) Safety of laser products – Part 2: Safety of optical fibre communication systems (OFCS), IEC 60825-2, andc) Safety of laser products Part 12: Safety of free space optical communication systems used for transmission of information, IEC 60825-12. <p>as applicable.</p> <p>Equipment that is inherently a Class I laser product, which means the equipment contains no laser or laser diode of a higher class number, is not required to have a laser warning label or other laser statement.</p> <p>The data for a laser or a laser diode shall confirm that these components comply with the Accessible Emission Limit for Class I when measured according to IEC 60825-1, for the above exception to apply. The data may be obtained from the component manufacturer and can relate to the component alone or to the component in its intended application in the equipment. The lasers or laser diodes shall produce radiation only in the wavelength range of 180 nm to 1 mm.</p> <p>Compliance is checked by inspection, by evaluation of the data provided by the manufacturer and, if necessary, by testing.</p>



CLAUSE	VERDICT	COMMENT
		<i>New clause added;</i>
8.16.4		Equipment containing LEDs that produce optical radiation in excess of the limits specified in IEC 62471 in the wavelength range 200 nm to 3000 nm, as specified by the lamp manufacturer, shall be provided with means (such as an interlock, barriers, guards or the equivalent) to reduce the likelihood of optical radiation exceeding the limits specified in IEC 62471 from appearing in user accessible areas. Low power applications of LEDs need not comply with IEC 62471. Compliance is checked by evaluation of available data sheets, by inspection and, if necessary, by measurement.
24	Info	Strain Relief
2.1	Info	Cable strain relief
		<i>New clause added;</i>
24.1.2		A load shall be applied as shown in Figure 24.1 in accordance with Table 24.1 and is to be suspended from the cable for 5 minutes.
		<i>New section added;</i>
24.3		Strain relief for cords This section contains requirements for strain relief for cords (see standard for details).
29	Info	Printed-Wiring Board (PWB) Bonding/Equipment Ground Path Test
		<i>New clause added;</i>
29.2		Following the test, the resistance of each bonding/equipment ground conductor trace is to be determined. This is determined by measuring the voltage drop when a current of 25 A, derived from a 60 Hz source with a no-load voltage not exceeding 6 V, is passed between the supply ground conductor or terminal and the load side of each outlet. The resistance shall not be more than 0.1 ohms.



CLAUSE	VERDICT	COMMENT
35	Info	Markings
		<i>New clause added;</i>
		Each piece of electrical equipment shall bear those of the following markings necessary to identify the equipment and ensure that it is suitable for the particular installation:
35.1		<ul style="list-style-type: none"> a) the marker's name, trademark, or other recognized symbol of identification; b) catalogue number or type; c) voltage; d) rated load amperes; e) watts, volt amperes, or horsepower; f) whether for ac, dc, or both; g) number of phases; h) frequency in hertz; i) short circuit-current rating (SCCR); j) designation of terminals; k) whether for continuous or intermittent duty;
35.2	Info	General
		<i>New clause added;</i>
35.2.21		A metallic Multioutlet Assembly shall be permanently marked, on its base or cover and in the installation instructions, with the number, type, and size of insulated conductors for which the Multioutlet Assembly is intended when supplied with a raceway intended for field installed conductors. Reference 4.9.
		<i>New section added;</i>
35.5		Marking incomplete multioutlet assemblies
		This section contains requirements for incomplete multioutlet assemblies (see standard for details).
Supplement SA	Info	MODULAR FACTORY WIRED FLOOR MOUNTED MULTIOUTLET ASSEMBLIES
SA21	Info	Markings
		<i>New clause added;</i>
SA21.5		When installation, operating, and maintenance instructions are provided in accordance with SA21.2(d) each modular system raceway shall be marked with the following or equivalent: "Operating and installation instructions are available by scanning this "QR code" or by contacting the manufacturer at [to be filled in by the manufacturer]."



CLAUSE	VERDICT	COMMENT
		<i>New Supplement added;</i>
Supplement SB		MOTOR OPERATED MULTIOUTLET ASSEMBLIES This section contains requirements for motor operated multioutlet assemblies (see standard for details).
		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.