

## STANDARD INFORMATION

**Standard:** UL 1400-2

**Standard ID:** Outline of Investigation for Fault-Managed Power Systems [UL SUBJECT 1400-2:2023 Ed.2]

**Previous Standard ID:** Outline of Investigation for Fault-Managed Power Systems [UL SUBJECT 1400-2:2022 Ed.1]

## EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

**Effective Date:** **July 13, 2025**

## IMPACT, OVERVIEW, AND ACTION REQUIRED

**Impact Statement:** Per our accreditation, Intertek is required to review reports against the standard revisions to confirm compliance. Once compliance is confirmed, the standard reference in the report is updated to show continued compliance to the technical requirements of the standard. Reports not updated to this version by the effective date above will be withdrawn.

**Overview of Changes:** Revision to CL4 requirements. Specific details of new/revise requirements are found in table below.

***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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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 <del>lined-out</del> below.</i>
1	Info	<b>Scope</b>
1.1		These requirements cover 60 – 250 °C (140 – 482 °F) single- and multiple-conductor, jacketed cables for use as fixed wiring within buildings, may be used outdoors and/or for direct burial in Class 4 circuits in fault-managed power systems as <u>described in Article 726 and other applicable parts of the National Electrical Code (NEC). Cables covered by these requirements include CL4P (plenum cables), CL4R (riser cables) and CL4 (general purpose cables) as described in Article 722. These requirements also cover cables designated as CL4Z that are intended for outdoor use only and are not to be attached to or used within a building structure. Type CL4Z cables comply with the applicable requirements for CL4 except where otherwise specified.</u>
5	Info	<b>Performance</b>
5.3	Info	<b>Cold Bend Test of Complete Cable</b>
5.3.1		After being conditioned for 4 h in circulating air that is precooled to and maintained at a temperature of –20.0 °C (–4.0 °F), –30.0 °C (–22.0 °F), –40.0 °C (–40.0 °F), –50.0 °C (–58.0 °F), –60.0 °C (–76.0 °F), or –70.0 °C (–94.0 °F), four specimens of the complete cable shall not be damaged when the specimens are individually wound onto a round mandrel as described in 5.3.2 and 5.3.3. <u>Type CL4Z cables are required to conditioned at a minimum of -40 °C.</u>
5.6	Info	<b>Vertical-Tray Flame Tests</b>
5.6.1	Info	<b>General</b>
5.6.1.1		Type CL4 cables of a given construction shall not exhibit char that reaches the upper end of any specimen (a maximum of 8 ft, 0 in or 244 cm) when sets of cable specimens as described in 5.6.1.2 are separately installed in a vertical ladder type of cable tray and are subjected to 20 min of flame as described under UL Vertical Tray Flame Test Method 1 (smoke measurements are not applicable) in UL 2556. <u>This test is not required for CL4Z cables.</u>
5.18	Info	<b>Crush Resistance Test for Thin-wall Insulation</b>
5.18.3		The test setup shall be capable of detecting a short and stopping the test when a short occurs between the steel plate and mandrel. The specimens, apparatus and the surrounding air are to be in thermal equilibrium with one another at a temperature of 24 ±8.0 °C (75 ±14.4 °F) throughout the test. The machine is to be started and the specimen is to be subjected to the increasing force of the plates moving towards one another until a short occurs. The maximum force exerted on the specimen before the short circuit occurs is to be recorded as the crushing force for that end of the specimen. <u>The maximum force applied shall not exceed 8896 N (2000lbf).</u>



CLAUSE	VERDICT	COMMENT
6	Info	<b>Markings</b>
6.3	Info	<b>Information on or in the Cable</b>
6.3.1		<p>The following information shall appear at the intervals indicated in 6.1 throughout the entire length of the finished cable. The supplementary markings must immediately follow the type letters. The sequence of these markings is not specified. The sequence of the other items is not specified. Other information, where added, shall not confuse or mislead and shall not conflict with these requirements.</p> <p>g) The designation "sun res" or "sunlight resistant" for cable that complies with the sunlight resistance test referenced in 5.7. <u>Optional for CL4Z Cables.</u></p>
6.5	Info	<b>Multiple Markings</b>
6.5.1		<p>No more than one of the designations "CL4P", "CL4R", or "CL4" shall appear on a cable covered in these requirements or on the tag, reel, or carton for this cable. <u>CL4Z cables are permitted to also be designated "CL4P", "CL4R" or "CL4".</u></p>