

STANDARD INFORMATION

Standard: UL Subject 1801

Standard ID: Outline of Investigation for Power Distribution Centers for Communications Equipment [UL SUBJECT 1801:2023 Ed.4]

Previous Standard ID: Outline of Investigation for Power Distribution Centers for Communications Equipment [UL SUBJECT 1801:2008 Ed.3]

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **July 10, 2026**

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 Reports not updated to this version by the effective date above will be withdrawn.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: Updates to align with changes to UL 62368-1. 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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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
		<p>Additions to existing requirements are <u>underlined</u> and deletions are shown lined-out below.</p>
		<p>Scope</p> <p><u>The provisions of Clause 1 of UL 62368-1 apply, except as follows.</u></p> <p><u>Replacement of text of the 1st paragraph:</u></p> <p><u>This outline addresses the safety of power distribution centers for information and communication technology equipment with a rated voltage not exceeding 600 V.</u></p> <p><u>Power distribution centers which provide, distribute, monitor, and control isolated secondary circuit power to other equipment typically used in information and communication technology equipment installations (refer to Annex AA), and consist of some or all of the following:</u></p> <ul style="list-style-type: none"><u>– distribution panelboards, powerboards, disconnects, and overcurrent protective devices;</u><u>– control and monitoring equipment;</u><u>– assemblies consisting of racks, shelves, and enclosures which could contain any of the above components, interconnecting hardware, power supplies (such as rectifiers, converters, and inverters), batteries, and any other related peripheral devices.</u> <p>The block diagram in Figure 101 displays, in single line form, a typical d.c. power distribution system. The rectifiers provide the power for the information and communication technology equipment loads and maintain the charge (float) in the batteries. The batteries and/or the backup generator provide the energy when interruption of commercial a.c. power occurs. The d.c. distribution system is to provide energy to the information and communication technology equipment loads with minimal power losses regardless of the state of commercial a.c. power. The d.c. power distribution system transmits the energy from the rectifiers or batteries to the information and communication technology equipment loads. Overcurrent protection devices may be provided within the distribution among the rectifier outputs, batteries, or the input to the primary distribution system. The rigid bus bar, which is typically used, is designed for a minimum voltage drop and is a distribution structure capable of withstanding fault currents.</p> <p>The distribution system may be divided into primary and secondary distribution. The primary distribution system contains the overcurrent protection devices, the</p>

1



CLAUSE	VERDICT	COMMENT
		<p>wire, and the cable to connect the output voltage from the batteries and rectifiers to the secondary distribution system. The overcurrent protection devices provide fault and isolation protection when a short or overload condition occurs on the wire or cable between the primary and secondary distribution systems. The secondary distribution system contains the overcurrent protection devices (such as fuses and circuit breakers), the wire, and cable to connect the output voltage from the rectifiers and the primary distribution system to the information and communication technology equipment loads. The overcurrent protection devices in the secondary distribution system are intended to protect the wire and cable from faults in the secondary distribution system. Equipment faults are normally protected by overcurrent protection devices either within the frames containing the information and communication technology equipment loads or within the D.C. SECONDARY DISTRIBUTION circuit.</p> <p>Addition of text to the bottom of Clause 1 of UL 62368-1:</p> <p>This outline does not apply to the following:</p> <ul style="list-style-type: none">– power units other than Class 2 covered by the Standard for Power Units Other Than Class 2, UL 1012, and General Use Power Supplies, CSA C22.2 No. 107.1;– Class 2 power units covered by the Standard for Class 2 Power Units, UL 1310, and Power supplies with extra-low-voltage class 2 outputs, CSA C22.2 No. 223;– Telecommunication technology equipment covered by the Standard for Audio/Video, Information and Communication Technology Equipment Safety – Part 1: General Requirements, UL 62368-1; and– Uninterruptible power supply equipment (d.c. to a.c. inverters) covered by the Standard for Uninterruptible Power Systems, UL 1778, and Uninterruptible Power Systems, CSA C22.2 No. 107.3.
		<hr/> <p><i>New clause added;</i></p>
4		<p>General requirements</p> <p>The provisions of Clause 4 of UL 62368-1 apply.</p>
		<hr/> <p><i>New clause added;</i></p>
5		<p>Electrically-caused injury</p> <p>The provisions of Clause 5 of UL 62368-1 apply.</p>



CLAUSE	VERDICT	COMMENT
		<i>New clause added;</i>
6		Electrically-caused fire The provisions of Clause 6 of UL 62368-1 apply.
		<i>New clause added;</i>
7		Injury caused by hazardous substances The provisions of Clause 7 of UL 62368-1 apply.
		<i>New clause added;</i>
8		Mechanically-caused injury The provisions of Clause 8 of UL 62368-1 apply.
		<i>New clause added;</i>
9		Thermal burn injury The provisions of Clause 9 of UL 62368-1 apply.
		<i>New clause added;</i>
10		Radiation The provisions of Clause 10 of UL 62368-1 apply.
		<i>New clause added;</i>
Annex A		Annex A (informative) Examples of equipment within the scope of this document The provisions of Annex A of UL 62368-1 do not apply.
		<i>New clauses added;</i>
		Annex B (normative) Normal operating condition tests, abnormal operating condition tests and single fault condition tests
Annexes		Annex C (normative) UV radiation
		Annex D (normative) Test generators
		Annex E (normative) Test conditions for equipment containing audio amplifiers
		Annex F (normative) Equipment markings, instructions, and instructional safeguards



CLAUSE	VERDICT	COMMENT
--------	---------	---------

Annex G (normative) Components

Annex H (normative) Criteria for telephone ringing signals

Annex I (informative) Overvoltage categories (see IEC 60364-4-44)

Annex J (normative) Insulated winding wires for use without interleaved insulation

Annex K (normative) Safety interlocks

Annex L (normative) Disconnect devices

Annex M (normative) Equipment containing batteries and their protection circuits

Annex N (normative) Electrochemical potentials (V)

Annex O (normative) Measurement of creepage distances and clearances

Annex P (normative) Safeguards against conductive objects

Annex Q (normative) Circuits intended for interconnection with building wiring

Annex R (normative) Limited short-circuit test

Annex S (normative) Tests for resistance to heat and fire

Annex T (normative) Mechanical strength tests

Annex U (normative) Mechanical strength of CRTs and protection against the effects of implosion

Annex V (normative) Determination of accessible parts

Annex W (informative) Comparison of terms introduced in this document Annex

X (normative) Alternative method for determining clearances for insulation in circuits connected to an AC mains not exceeding 420 V peak (300 V RMS)

Annex Y (normative) Construction requirements for outdoor enclosures

The provisions of the above Annexes of UL 62368-1 apply.



CLAUSE	VERDICT	COMMENT
		<i>New annex added;</i>
		Power distribution centers
Annex AA		The requirements of this standard supplemented or replaced by those contained in this annex apply to power distribution centers for information and communication technology equipment. See standard for details.
		<i>New annex added;</i>
		Normal operating condition tests, abnormal operating condition tests and single fault condition tests
		The provisions of Annex B of UL 62368-1 apply, except as follows.
Annex AA.B		Addition of text to the bottom of B.2 of UL 62368-1: AA.B.2.101 Battery resistance The DC battery supply resistance calculation shall be based on the minimum battery resistance specified by the battery manufacturer. The resistance for multicell modules supplied by the battery manufacturer as an assembly shall include all cells and internal connecting hardware.
		<i>New annex added;</i>
		Equipment markings, instructions, and instructional safeguards
Annex AA.F		The provisions of Annex F of UL 62368-1 apply, except as follows. Addition of text to the bottom of F.3.3.8 of UL 62368-1: See standard for details.
		<i>New annex added;</i>
		Components
Annex AA.G		The provisions of Annex G of UL 62368-1 apply, except as follows: Addition of text to the bottom of G.2 of UL 62368-1: See standard for details.



CLAUSE	VERDICT	COMMENT
		<i>New annex added;</i>
		Disconnect devices
		The provisions of Annex L of UL 62368-1 apply, except as follows.
Annex AA.L		AA.L.1 General requirements
		Addition of text to the bottom of Annex L of UL 62368-1:
		In restricted access areas, a disconnect device need not be provided for DC primary distribution or DC secondary distribution except in computer rooms as specified by the National Electrical Code, NFPA 70.
		<i>New annex added;</i>
		Permanently connected equipment – mains connections
Annex AA.H		The provisions of Annex DVH of UL 62368-1 apply, except as follows.
		Addition of text to the bottom of Annex DVH of UL 62368-1:
		See standard for details.