UL 1953

Outline of Investigation for Power Distribution Blocks

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Summary of Topics

The eighth issue of the Outline of Investigation for Power Distribution Blocks, UL 1953, dated November 21, 2024, replaces the seventh issue published on July 1, 2020. This new issue revises the Section on Short-Circuit Current Tests (Section 13) to align with requirements in the Standard for Terminal Blocks, UL 1059, which was revised November 26, 2019. This new issue:

- ***Adds an alternative for markings to be made by "cross-media documentation" (commonly referred to as 'electronic markings')***

- ***Revises the temperature test requirement to clarify the selection of conductor sizes when the current rating of the power distribution block falls between the ampacity ratings of the conductors sizes (based on revisions to the Standard for Wire Connectors, UL 486A-486B, related to "Multi-Tap Wire Connectors" – refer to Topic (C) in Bulletin dated May 10, 2024)***

- ***Modifies the section on Short Circuit Current: 1) Provides the option for ratings to be on an information sheet shipped within the unit container, 2) Allows the information regarding overcurrent protective devices to be provided in the form of a table, 3) Adds the acronym "SVC" for consistence with the changes proposed to the National Electrical Code (NEC).***

- ***Other editorial changes are included to improve the text.***

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INTRODUCTION

1 Scope

1.1 These requirements cover power distribution blocks that are rated 1000 volts or less and intended to be used on either the line side or load side of service equipment in accordance with the National Electrical Code, NFPA 70. These requirements also cover power distribution blocks that are rated 1500 volts DC or less and intended to be used in photovoltaic applications in accordance with Article 690 of the National Electrical Code, NFPA 70. These blocks are used for splicing and tapping conductors in order to distribute power to separate circuits or loads.

1.2 A power-distribution block consists of one or more connectors mounted on an insulating base. Each connector has provision for one or more incoming conductors and multiple tap-off conductors. A tap-off conductor is of the same or smaller size as the incoming conductor. The connectors may be of the lay-in construction which do not require the incoming conductor to be terminated.

1.3 A power distribution block is intended to permanently support and insulate the wire terminations and joints of each polarity from each other, and from the surface on which the power distribution block is mounted. A power distribution block may also be provided with an insulating cover.

1.4 These requirements do not cover terminal blocks which are covered by the Standard for Terminal Blocks, UL 1059.

2 Glossary

2.1 The following definitions apply in this Outline of Investigation.

2.2 POWER DISTRIBUTION BLOCK – A rigidly mounted device consisting of an insulating base with barriers having one or more electrically isolated terminal assemblies. Each terminal assembly serves as a junction to electrically connect two or more conductors.

2.3 CONNECTOR – A device that establishes the connection between one or more conductors in the field as specified in NFPA 70.

2.4 TERMINAL ASSEMBLY – A single pole of the power distribution block consisting of one or more connectors.

3 Units of Measurement

3.1 The values given in SI (metric) units shall be normative except for AWG/kcmil conductor sizes. Any other values are for information only.

4 Referenced Publications

4.1 Any undated reference to a code or standard appearing in the requirements of this Outline of Investigation shall be interpreted as referring to the latest edition of that code or standard.

4.2 The following publications are referenced in this Standard:

NFPA 70, *National Electrical Code*

UL 1059, *Terminal Blocks*

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