UL 4703

STANDARD FOR SAFETY

Photovoltaic Wire

UL Standard for Safety for Photovoltaic Wire, UL 4703

Second Edition, Dated December 25, 2026

Summary of Topics

This new Second Edition of ANSI/UL 4703 dated December 25, 2026 incorporates editorial changes including renumbering and reformatting to align with current style, as well as including a change to Marking for Other Than Class B, C or SIW, new 11.2(l) and Table 11.1.

The new and revised requirements are substantially in accordance with Proposal(s) on this subject dated June 6, 2025, December 19, 2025, and July 24, 2026.

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December 25, 2026

ANSI/UL 4703-2025

UL 4703

Standard For Photovoltaic Wire

First Edition – September, 2014

Second Edition

December 25, 2026

This ANSI/UL Standard for Safety consists of the Second Edition.

The most recent designation of ANSI/UL 4703 as an American National Standard (ANSI) occurred on December 25, 2026. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, and Title Page.

Comments or proposals for revisions on any part of the Standard may be submitted to ULSE at any time. Proposals should be submitted via a Proposal Request in the Collaborative Standards Development System (CSDS) at https://csds.ul.com.

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INTRODUCTION

1 Scope

1.1 This Standard covers single-conductor, insulated and integrally or non-integrally jacketed, sunlight resistant, photovoltaic wire rated 90 °C, 105 °C, 125 °C, or 150 °C dry and, 90 °C wet, 600, 1000, or 2000 V for interconnection wiring of grounded and ungrounded photovoltaic power systems as described in Article 690, Part IV, Wiring Methods, and other applicable parts of NFPA 70®, *National Electrical Code*® (NEC®).

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2 Units of Measurement

2.1 Values stated without parentheses are the requirement. Values in parentheses are explanatory or approximate information

3 Referenced Publications

3.1 Any undated reference to a code or standard appearing in the requirements of this Standard shall be interpreted as referring to the latest edition of that code or standard

3.2 The following publications are referenced in this Standard:

ASTM B3, *Standard Specification for Soft or Annealed Copper Wire*

ASTM B8, *Standard Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft*

ASTM B33, *Standard Specification for Tin-Coated Soft or Annealed Copper Wire for Electrical Purposes*

ASTM B172, *Standard Specification for Rope-Lay-Stranded Copper Conductors Having Bunch-Stranded Members, for Electrical Conductors*

ASTM B173, *Standard Specification for Rope-Lay-Stranded Copper Conductors Having Concentric-Stranded Members, for Electrical Conductors*

ASTM B174, *Standard Specification for Bunch-Stranded Copper Conductors for Electrical Conductors*

ASTM B298, *Standard Specification for Silver-Coated Soft or Annealed Copper Wire*

ASTM B355, *Standard Specification for Nickel-Coated Soft or Annealed Copper Wire*

ASTM B800, *Standard Specification for 8000 Series Aluminum Alloy Wire for Electrical Purposes-Annealed and Intermediate Tempers*

ASTM B801, *Standard Specification for Concentric-Lay-Stranded Conductors of 8000 Series Aluminum Alloy for Subsequent Covering or Insulation*

ASTM B835, *Standard Specification for Compact Round Stranded Copper Conductors Using Single Input Wire Construction*

ASTM B836, *Standard Specification for Compact Round Stranded Aluminum Conductors Using Single Input Wire Construction*

ASTM B901, *Standard Specification for Compressed Round Stranded Aluminum Conductors Using Single Input Wire Construction*

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ASTM B902, *Standard Specification for Compressed Round Stranded Copper Conductors, Hard, Medium-Hard, or Soft Using Single Input Wire Construction*

ASTM B786/B786M, *Standard Specification for 19 Wire Combination Unilay-Stranded Aluminum Conductors for Subsequent Insulation*

ASTM B787/B787M, *Standard Specification for 19 Wire Combination Unilay-Stranded Copper Conductors for Subsequent Insulation*

IEC 60228, *Conductors of insulated cables*

NFPA 70®, *National Electrical Code®* (NEC®)

UL 44, *Thermoset-Insulated Wires and Cables*

UL 66, *Fixture Wire*

UL 83, *Thermoplastic-Insulated Wires and Cables*

UL 493, *Thermoplastic-Insulated Underground Feeder and Branch-Circuit Cables*

UL 758, *Appliance Wiring Material*

UL 854, *Service-Entrance Cables*

UL 1581, *Reference Standard for Electrical Wires, Cables, and Flexible Cords*

UL 2556, *Wire and Cable Test Methods*

4 Glossary

4.1 For the purpose of this Standard the following definitions apply.

4.2 COMPOSITE INSULATION – A multiple-layer system of materials that fulfills the requirements for both electrical and mechanical integrity of the cable or wire.

4.3 CP – A thermoset compound whose characteristic constituent is chlorosulfonated polyethylene.

4.4 CPE – A thermoset compound whose characteristic constituent is chlorinated polyethylene.

4.5 EPCV – A thermoset compound whose characteristic constituent is a co-vulcanizate of ethylene and propylene with polyethylene.

4.6 EP – A thermoset compound whose characteristic constituent is a copolymer of ethylene and propylene, or a terpolymer of ethylene, propylene, and a small amount of nonconjugated diene, or a blend of both.

4.7 NBR/PVC – A thermoset compound whose characteristic constituents are acrylonitrile butadiene rubber and polyvinyl chloride.

4.8 NEOPRENE – A thermoset compound whose characteristic constituent is polychloroprene.

4.9 PVC – A thermoplastic compound whose characteristic constituent is polyvinyl chloride or a copolymer of vinyl chloride and vinyl acetate.

4.10 THERMOPLASTIC – A jacket material that repeatedly can be softened by heating and hardened by cooling through a temperature range characteristic of the material, and that in the softened state can be shaped through the application of force.

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