ATIS-0600017.2020

Non-Halogenated DC Power Wire and Cable For Telecommunications Power Systems

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ATIS-0600017.2020, *Non-Halogenated DC Power Wire and Cable For Telecommunications Power Systems*

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American National Standard on

Non-Halogenated DC Power Wire and Cable For Telecommunications Power Systems

Alliance for Telecommunications Industry Solutions

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American National Standards Institute, Inc.

Abstract

This standard establishes a minimum requirement for Non-Halogenated DC power cable used to connect telecommunications DC power systems to telecommunications load equipment. It will also be used to interconnect elements of the DC power system.

Foreword

The information contained in this Foreword is not part of this American National Standard (ANS) and has not been processed in accordance with ANSI's requirements for an ANS. As such, this Foreword may contain material that has not been subjected to public review or a consensus process. In addition, it does not contain requirements necessary for conformance to the Standard.

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ANSI guidelines specify two categories of requirements: mandatory and recommendation. The mandatory requirements are designated by the word *shall* and recommendations by the word *should*. Where both a mandatory requirement and a recommendation are specified for the same criterion, the recommendation represents a goal currently identifiable as having distinct compatibility or performance advantages.

Suggestions for improvement of this document are welcome. They should be sent to the Alliance for Telecommunications Industry Solutions, STEP, 1200 G Street NW, Suite 500, Washington, DC 20005.

At the time of consensus on this document, STEP, which was responsible for its development, had the following leadership:

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The Network Power Systems (NPS) Subcommittee was responsible for the development of this document.

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1.1 Scope

Power Cables under this standard *shall* meet the minimum requirements of Telcordia "Generic Requirements for Telecommunications Power Cable", GR-347-CORE [Ref 9]. This standard covers requirements for this cable in excess of GR-347-CORE [Ref 9]. For halogenated DLO and XHHW telecommunications DC power cables, see ATIS-0600028-[Ref 7].

1.2 Purpose

This standard establishes a minimum requirement for non-halogenated DC power cable used to connect telecommunications DC power systems to telecommunications load equipment. It will also be used to interconnect elements of the DC power system.

For 16 AWG and smaller conductor sizes, where internal wiring and/or interconnection of equipment is required, refer to Annex D.

2 Normative References

The following standards contain provisions which, through reference in this text, constitute provisions of this ATIS Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this ATIS Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

[Ref 1] ASTM B3*, Specifications for Soft or Annealed Copper Wire*.[1]

[Ref 2] ASTM B8, Specifications for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft.[1]

[Ref 3] ASTM B33, *Specifications for Tinned Soft or Annealed Copper Wire for Electrical Purposes.*[1]

[Ref 4] ASTM B172, *Specifications for Rope-Lay-Stranded Copper Conductors Having Bunch-Stranded Members, for Electrical Conductors*.[1]

[Ref 5] ASTM G21, *Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi*.[1]

[Ref 6] ASTM G29, *Standard Practice for Determining Algal Resistance of Plastic Films*.[1]

[Ref 7] ATIS-0600028, *DC Power Wire and Cable for Telecommunications Power Systems--for XHHW and DLO/Halogenated RHW-RHH Cable Types.*[2]

[Ref 8] ATIS-0600311, *DC Power Systems – Telecommunications Environment Protection.*[2]

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[1] This document is available from the ASTM International, < https://www.astm.org/>.

[2] This document is available from the Alliance for Telecommunications Industry Solutions (ATIS). < https://www.atis.org/ >