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ANSI/ICEA S-76-474

**INSULATED CABLE ENGINEERS ASSOCIATION
STANDARD FOR
NEUTRAL-SUPPORTED POWER CABLE ASSEMBLIES
WITH
WEATHER-RESISTANT EXTRUDED INSULATION
RATED 600 VOLTS**

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Approved as an American National Standard
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*Standard For Neutral-Supported Power Cable Assemblies With
Weather-Resistant Extruded Insulation
Rated 600 Volts*

Developed and Published By

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Section 1 GENERAL

1.1 SCOPE

This standard applies to the materials, constructions, and testing of assemblies of extruded dielectric insulated electric current carrying phase conductors and bare or covered neutral electrical conductors used as weather-resistant wires and cables suspended from supporting structures for the overhead distribution of electrical energy.

This standard is intended to apply to the following multiplexed wire and cable constructions:

Neutral Supported Service Drop Cables, and
Neutral Supported Secondary Distribution Cables.

The use of these service drop and secondary distribution cables is limited to circuits not exceeding 600 volts phase-to-phase, or 480 volts phase-to-ground, and to a normal service conductor temperature rating of 75°C or 90°C.

When reference is made in this publication to an industry standard, that reference is to the standard with the title and date of issue listed in Appendix A. Where a conflict exists between the requirements of this standard and those of a referenced standard, the requirements of this standard shall apply.

In this standard, units are most often expressed in the English System. To convert from an English unit to the appropriate metric unit, multiply the value of the English unit by the appropriate number from Appendix B.

The recommended bending radii for phase conductors and cable assemblies is given in Appendix C.

U.S. customary units, except for temperature, are specified throughout this standard. Approximate International System of Units (SI) equivalents are included for information only.

1.2 ASSEMBLIES

Multiplexed cable assemblies are composed of one or more phase conductors assembled with a neutral conductor. The neutral conductor may be bare or covered with an extruded weather-resistant low/linear low, medium, or high-density thermoplastic polyethylene compound, or with a cross-linked polyethylene compound.

1.3 DESIGN OPTIONS

The user of this standard should recognize that it covers many options of two or more conductor aerial assemblies. The user should select the necessary options required for a complete description of the desired cable. See Table 1-1 for design options.

The Aluminum Association booklet "Code Words for Overhead Aluminum Electrical Conductors", lists the code words that have been registered for aluminum phase conductor duplex, triplex, and quadruplex assemblies.