



ANSI/ICEA P-127-737-2021

Code Words for Overhead
Aluminum Covered Conductors
and 600 Volt Overhead Cables

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Approved as an American National Standard

ANSI Approval Date: June 3rd, 2021

ANSI/ICEA P-127-737-2021

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and 600 Volt Overhead Cables***

Published by

Insulated Cable Engineers Association, Inc.

www.icea.net

Approved December 19th, 2020 by
Insulated Cable Engineers Association, Inc.

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FOREWORD

This publication for Code Words for Overhead Aluminum Covered Conductors and 600 Volt Overhead Cables, P-127-737, was developed by the Insulated Cable Engineers Association, Inc. (ICEA). Code Words for 600 Volt Underground Distribution Cables is covered in ANSI/ICEA Publication # P-124-736.

ICEA standards and guides are adopted in the public interest and are designed to eliminate misunderstanding between the manufacturer and user and to assist the user in selecting and obtaining proper products for his or her particular need. Existence of an ICEA standard or guide does not in any respect preclude the manufacture or use of products not conforming to the standard or guide.

The user of this Standard is cautioned to observe any applicable health or safety regulations and rules relative to the manufacture and use of cable made in conformity with this Standard. This Standard hereafter assumes that manufacture, testing, installation and maintenance of cables defined by this publication will be performed only by properly trained personnel using suitable equipment.

Requests for interpretation of this ICEA Standard must be submitted in writing (hard copy, email, or fax) to the Insulated Cable Engineers Association to the ICEA Secretary. The mailing address of Headquarters and a contact link are shown on the ICEA web site – www.icea.net. An official written interpretation will be provided.

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Section 1 GENERAL

1.1 SCOPE

This publication includes a listing of code words for Overhead Aluminum Covered Conductors and 600 Volt Overhead Cables covered by the ANSI/ICEA S-70-547 and S-76-474 Standards respectively. Also included is a procedure for registering new code words and the details of the designation system. Code words are a means of identifying different sizes and types of conductors and cables in catalogs, orders, invoices and other production and sales records. A system of suffixes for code words provides designations for variations in construction, temper, and type of covering or insulation. This publication builds upon a previously published Aluminum Association "Code Words for Overhead Aluminum Electrical Conductors" document.

Code Words for 600 Volt Underground Distribution Cables is covered in ANSI/ICEA Publication # P-124-736.

1.2 CODE WORD SYSTEM

The code word system for overhead aluminum covered conductors and overhead 600 volt cables is similar to that employed for 600 volt underground distribution cables and bare overhead conductors. Code words have been selected from a common source for each category. The code word, with or without suffixes, identifies a distinctive cable design. A basic cable design is designated by a code word without suffixes (implied notations); suffixes are added where needed to delineate deviations from the basic design. Suffix notations used with bare, covered and insulated overhead wires and cables are retained, where applicable, and are supplemented by additional suffixes to identify features of the products.

This system provides not only a logical and consistent basis for assigning code words, but also serves to broadly identify the overhead cable category. For the naming convention of overhead aluminum covered conductors and 600 volt overhead cable categories, please see Table 1-1. Some of the code words can potentially be duplicated in Canadian or Great Britain standard which will not be covered in this document.

**Table 1-1
CODE WORD CATEGORIES**

Table	Categories
2-1, 2-2, 2-3	Trees
3-1	Lakes
3-2, 3-3, 3-4	Dog Breeds
3-5	Constellations
3-6	Currencies
3-7, 3-17, 3-25	Country Capitals
3-8, 3-18, 3-19, 3-26, 3-27	National Parks
3-9	Historical Figures
3-10, 3-11, 3-12	Shellfish
3-13, 3-14	Car Models
3-15	Insects
3-16	Units of Measure
3-20, 3-21, 3-22	Horse Breeds
3-23, 3-24	Boats

1.3 PROCEDURE FOR REGISTERING CODE WORDS

Submit code word request form (see Appendix A) to ICEA for the cable design it is intended to designate. The mailing address of Headquarters and a contact link are shown on the ICEA web site – www.icea.net.

Words submitted may be chosen by the registrant or assigned by ICEA. Code words should be selected from the source used for the underground cable category involved without duplicating the code word for any other wire or cable product.

1.4 REFERENCED DOCUMENTS

ANSI/ICEA S-70-547: Standard for Weather Resistant Polyethylene Covered Conductors.

ANSI/ICEA S-76-474: Standard for Neutral Supported Power Cable Assemblies with Weather-Resistant Extruded Insulation Rated 600 Volts.

1.5 TERMINOLOGY

1.5.1 DEFINITIONS

Aluminum 1350:	Electric conductor aluminum
mil:	Thousandth of an inch
Type A:	1 CCS wire and 2 Cu wires
Type C:	1 CCS wire and 2 Cu wires
Type F:	1 CCS wire and 6 Cu wires

1.5.2 ABBREVIATIONS

The following abbreviations are used throughout this publication.

AAC	All Aluminum Conductor (1350)
AAAC:	All Aluminum Alloy Conductor (6201)
ACSR:	Aluminum conductor, steel reinforced
Al:	Aluminum
AWG:	American Wire Gauge
CCS:	Copper-Clad Steel
CPT:	Compact Round Concentric-Lay-Stranded
Cu:	Copper
Cu Eq:	Equivalent size copper
HD:	High Density Polyethylene
kcmil:	Thousand circular mils
PE:	High Molecular Weight Polyethylene
PLAC:	Parallel Lashed Aerial Cable
RTS:	Reverse Twist Secondary - manufacturing method known as "SZ" cabling, or "reverse lay" cabling
SIW:	Single Input Wire
XLP:	Crosslinked Polyethylene

1.6 EXPLANATION OF IMPLIED AND SUFFIX NOTATIONS FOR OVERHEAD COVERED CONDUCTORS

- A) Implied Notations Omitted from Suffix:
1. Type of Conductor
 2. Type of Covering – ASTM D1248 Type I Low Density Class C Black Polyethylene
 3. Nominal Thickness of Covering
 4. H19 (Extra Hard) or T81 Temper Concentric Stranded or Solid Conductor
 5. ACSR Class "A" Galvanized Core Wire
 6. Where applicable, manufactured and tested in accordance with ANSI/ICEA S-70-547 Standard
- B) Suffix Notations used to Designate Other Than Implied:
1. Aluminum 1350 phase conductor:
 - a. **0** Annealed
 - b. **H12** or **H22** One Quarter Hard
 - c. **H14** or **H24** Half Hard
 - d. **H16** or **H26** Three Quarter Hard
 - e. **H142** or **H242** Half to Three Quarter Hard
 2. **CPT** - Compact Stranding
 3. **HD** - High Density Polyethylene
 4. **XLP** - Crosslinked Polyethylene
 5. **GRAY**, etc. - To Denote Color Other Than Black

Table 1-2
EXAMPLES OF OVERHEAD COVERED CONDUCTORS

Code Word	Size Stranding	Description
Cherry	2 AWG - Solid 1350	1350 H19; 45 mils Polyethylene
Cherry/H26	2 AWG - Solid 1350	1350 H26; 45 mils Polyethylene
Annona	336.4 kcmil -19W 1350	1350 H19; 60 mils Polyethylene
Crabapple	336.4 kcmil -19W 1350	1350 H19; 80 mils Polyethylene
Cherry/HD	2 AWG - Solid 1350	1350 H19; 45 mils High Density Polyethylene
CherryH26/HD	2 AWG - Solid 1350	1350 H26; 45 mils High Density Polyethylene
Cherry/XLP	2 AWG - Solid 1350	1350 H19; 45 mils Crosslinked Polyethylene

1.7 EXPLANATION OF IMPLIED AND SUFFIX NOTATIONS FOR SINGLE CONDUCTOR LOW-VOLTAGE SECONDARY OVERHEAD CABLES

- A) Implied Notations Omitted from Suffix:
1. Type of Insulation – ASTM D1248 Type I Class C Black Polyethylene
 2. Nominal Thickness of Insulation
 3. H19 (Extra Hard) temper, aluminum 1350, concentric* Stranded Conductor
 4. Manufactured to the applicable sections of ANSI/ICEA S-76-474
- B) Suffix Notations Used to Designate Other than Implied
1. Aluminum 1350 phase conductor:
 - a. **0** Annealed
 - b. **H12** or **H22** One Quarter Hard
 - c. **H14** or **H24** Half Hard
 - d. **H16** or **H26** Three Quarter Hard
 - e. **H142** or **H242** Half to Three Quarter Hard
 2. **CPT** - Compact Stranding
 3. **HD** - High Density Polyethylene
 4. **XLP** - Crosslinked Polyethylene
 5. **GRAY**, etc. - To Denote Color Other Than Black

* Note: Concentric stranding includes compressed, unilay, combination unilay, or compressed round using Single Input Wire type stranding.

Table 1-3
EXAMPLES OF 600 VOLT OVERHEAD SECONDARY CONDUCTORS

Code Word	Size Stranding	Description
Tahoe	2/0 AWG – 7W 1350	600 Volt, 1350 H19; 60 mils Polyethylene
Tahoe/H26	2/0 AWG – 7W 1350	600 Volt, 1350 H26; 60 mils Polyethylene
Tahoe/XLP	2/0 AWG – 7W 1350	600 Volt, 1350 H19; 60 mils Cross-Linked Polyethylene

1.8 EXPLANATION OF IMPLIED AND SUFFIX NOTATIONS FOR MULTIPLEX CONDUCTORS LOW-VOLTAGE OVERHEAD NEUTRAL-SUPPORTED AND SERVICE DROP CABLES (INCLUDING RTS, PARALLEL SECONDARY AND SERVICE DROP CABLE)

- A) Implied Notations Omitted from Suffix:
1. Type of Construction of Complete Cable
 2. Type of Phase Conductor Insulation – ASTM D1248 Type I Class C Black Polyethylene
 3. Nominal Thickness of Phase Conductor Insulation
 4. H19 (Extra Hard) Temper 1350 Concentric* Stranded or Solid Phase Conductor
 5. Type of Neutral
 6. Full or Reduced Neutral
 7. Bare or Covered Neutral
 8. Manufactured and tested in accordance with ANSI/ICEA S-76-474 Standard
 9. Insulation rating is 600V Phase-to-Phase

- B) Suffix Notations Used to Designate Other Than Implied:
1. Aluminum 1350 phase conductor:
 - a. **0** Annealed
 - b. **H12** or **H22** One Quarter Hard
 - c. **H14** or **H24** Half Hard
 - d. **H16** or **H26** Three Quarter Hard
 - e. **H142** or **H242** Half to Three Quarter Hard
 2. **CPT** - Compact Stranding
 3. **HD** - High Density Polyethylene
 4. **XLP** - Crosslinked Polyethylene
 5. **GRAY**, etc. - To Denote Color Other Than Black

* Note: Concentric stranding includes compressed, unilay, combination unilay, or compressed round using Single Input Wire type stranding.

Table 1-4
EXAMPLES OF 600 VOLT OVERHEAD CONDUCTORS

Code Word	Size Stranding	Description
Periwinkle	4 AWG – 7W 1350 4 AWG - 6/1W ACSR	Triplex; Phase Conductors 45 mils Polyethylene; ACSR Neutral
Criollo/H26	1/0 AWG – 19W 1350 1/0 AWG – 7W 1350	Quadruplex; Phase Conductors 1350 H26 60 mils Polyethylene; 1350 H19 Neutral
Periwinkle/XLP	4 AWG – 7W 1350 4 AWG - 6/1W ACSR	Triplex; Phase Conductors 1350 H19 45 mils Cross-Linked Polyethylene; ACSR Neutral
Periwinkle/HD	4 AWG – 7W 1350 4 AWG - 6/1W ACSR	Triplex; Phase Conductors 45 mils High Density polyethylene; ACSR Neutral

Section 2 COVERED CONDUCTORS CODE WORD TABLES

**Table 2-1
COVERED 1350 AAC CONDUCTORS**

Code Word	Size AWG/kcmil	No. of Wires		Nominal Covering Thickness (mils)
		Concentric Stranding	CPT*	
Prune	10	Solid	-	30
Cumquat	8	Solid	-	30
Apple	6	Solid	-	30
Plum	6	7	7	30
Pear	4	Solid	-	30
Apricot	4	7	7	30
Cherry	2	Solid	-	45
Peach	2	7	7	45
Nectarine	1	7	7	45
Quince	1/0	7	7	60
Haw	1/0	19	18	60
Orange	2/0	7	7	60
Ironwood	2/0	19	18	60
Fig	3/0	7	7	60
Lemon	3/0	19	18	60
Olive	4/0	7	7	60
Pomegranate	4/0	19	18	60
Sassafras	250	19	18	60
Catalpa	250	19	18	80
Mulberry	266.8	19	18	60
Silverbelt	266.8	19	18	80
Basswood	300	19	18	60
Sycamore	300	19	18	80
Annona	336.4	19	18	60
Crabapple	336.4	19	18	80
Chinquapin	350	19	18	60
Ginkgo	350	19	18	80
Molles	397.5	19	18	80
Ash	400	19	-	80
Sumac	450	37	35	80
Citron	477	19	18	80
Huckleberry	477	37	-	80
Tupelo	500	37	35	80
Paw Paw	556.5	37	-	80
Tangerine	636	37	-	95
Breadfruit	636	61	-	95
Banana	795	37	-	95
Persimmon	795	61	-	95
Grapefruit	1,033	61	-	95
Mango	1,590	61	-	110

* For constructions using CPT stranding, the no. of wires specified is a minimum.

Table 2-2
COVERED 6201 AAAC CONDUCTORS

Code Word	Equivalent ACSR Diameter AWG	Actual kcmil	No. of Wires	Nominal Covering Thickness (mils)
Birch	6	33.58	Solid	30
Maple	6	30.58	7	30
Poplar	4	48.69	Solid	30
Hornbeam	6	48.69	7	30
Elm	2	77.47	Solid	45
Linden	2	77.47	7	45
Corktree	1	97.63	7	45
Oilnut	1/0	123.3	7	60
Cockspur	1/0	123.3	19	60
Waterash	2/0	155.4	7	60
Coconut	2/0	155.4	19	60
Shellbark	3/0	195.7	7	60
Rattan	3/0	195.7	19	60
Planetree	4/0	246.9	7	60
Mangrove	4/0	246.9	19	60

Table 2-3
COVERED ACSR CONDUCTORS

Code Word	Size AWG/kcmil	No. of Wires Al/Steel	Nominal Covering Thickness (mils)
Walnut	6	6/1	30
Acorn	5	6/1	30
Butternut	4	6/1	30
Hickory	4	7/1	30
Hazelnut	3	6/1	45
Pignut	2	6/1	45
Beech	2	7/1	45
Chestnut	1	6/1	45
Almond	1/0	6/1	60
Pecan	2/0	6/1	60
Cottonwood	2/0	6/1	80
Filbert	3/0	6/1	60
Chokeberry	3/0	6/1	80
Buckeye	4/0	6/1	60
Gumwood	4/0	6/1	80
Hackberry	266.8	18/1	60
Redbud	266.8	18/1	80
Mockernut	336.4	18/1	60
Aspen	336.4	18/1	80