

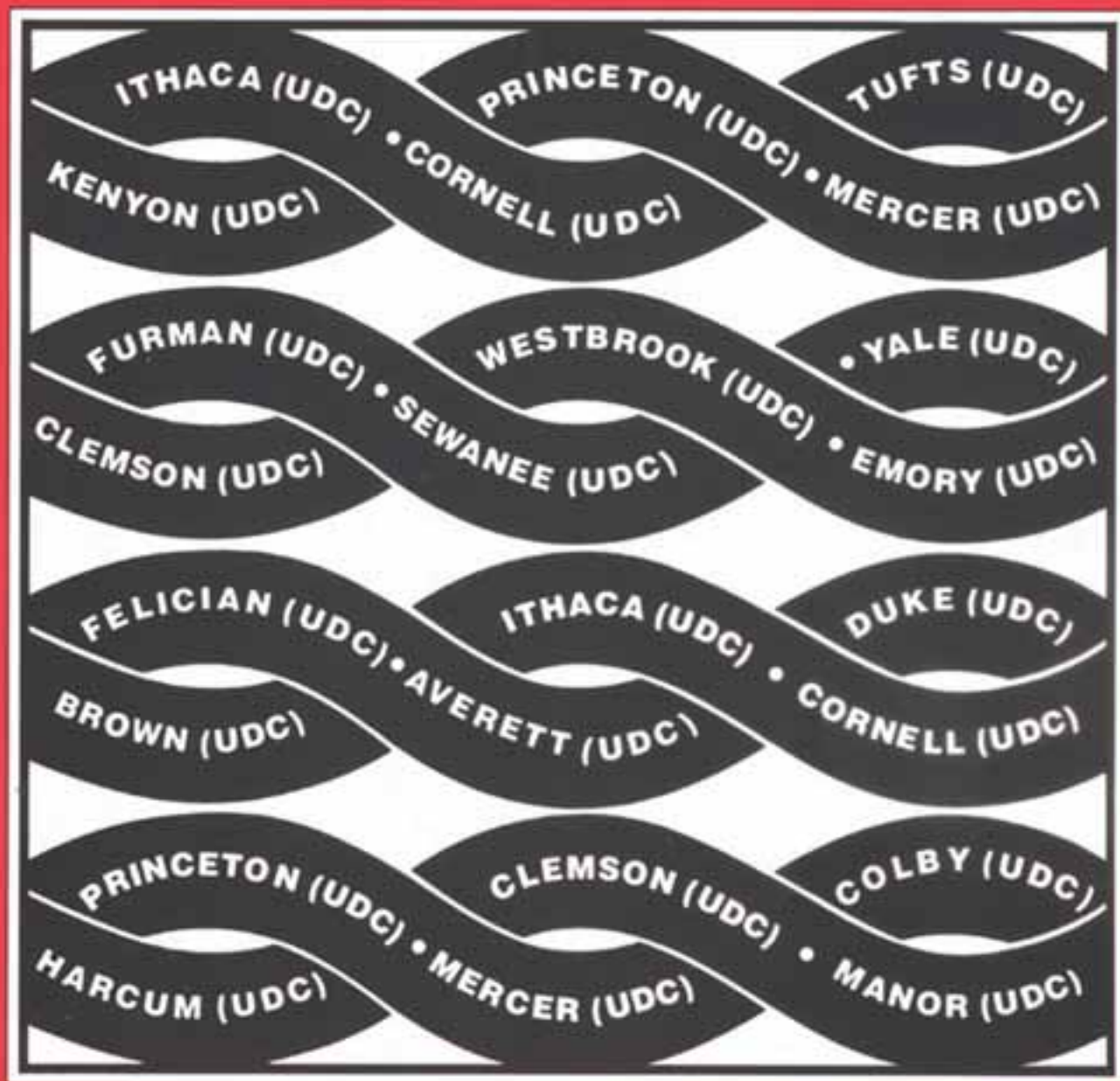
# Code words for underground distribution cables

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The Aluminum Association



Code words for underground distribution cables



Draft 2, distributed Nov 23, 1998  
and editorial corrections made Dec 10, 1998  
and editorial correction made Jan 5, 1999  
and editorial corrections made Jan 12, 1999

**CODE  
WORDS  
for  
UNDERGROUND  
DISTRIBUTION  
(UD) CABLES**

THIRD EDITION  
1999  
the Aluminum Association

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## FOREWORD

This booklet lists Code Words for secondary (600 volt) underground distribution (UD) cables, and identifies their constructions. Reference to primary (5, 15, and 25kV) cables has been deleted as the designs included are not current with the styles used today.

It has been the practice for many years to employ code words for bare, covered (weatherproof), and low voltage secondary and neutral supported service drop insulated cables used in overhead systems. (Refer to The Aluminum Association publication "Code Words for Aluminum Conductors".) With the rapid expansion in the use of UD cables in the last decade and the proliferation in the sizes, types and constructions available, the advantages of establishing code words for these products was apparent. Consequently, manufacturers have assigned code words to UD cables as a convenient means of concisely defining specific cable designs (conductor size, insulation type, voltage rating, neutral configuration and size, number of phase conductors and type of assembly). The use of code words in catalogs, orders, invoices and other production and sales records not only provides a brief identification for UD cables but also minimizes the chance for errors in transcribing the longer, detailed description for each cable.

Learning from the experience gained in standardizing the code word system for overhead products, the same basic principles were employed in the assignment of code words for UD cables accepted by and registered with the Electrical Technical Committee of The Aluminum Association.

This booklet lists UD cable code words and identifies their constructions, includes the details of the code word system and outlines the procedure for registering new code words. Preceding the tables identifying the UD cable constructions is a list of characteristics that are implied by the code word itself without any suffix. This is followed by a list of the suffixes to be used with the code words for designating variations in those characteristics. Selected examples show how the system works.

The 600V UD cables referenced in Tables A through H2 are manufactured to the applicable ASTM, UL, and ICEA specifications. Following the tables is an alphabetical listing of all UD cable code words with references to the pages where the cable data may be found.

The booklet concludes with a list of standards and specifications relating to UD cables which are endorsed by The Aluminum Association.

All Aluminum Association published standards, data, specifications and other material are reviewed at least every five years and revised, reaffirmed or withdrawn. Users are advised to contact the Aluminum Association to ascertain whether the information in this publication has been superseded in the interim between publication and proposed use.

# CODE WORD SYSTEM FOR UD CABLE

The code word system for UD cables is similar to that employed for many years for overhead conductors and cables. Code words have been selected from a common source for each category of UD cables. 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 UD cables not found in overhead products.

This system provides not only a logical and consistent basis for assigning code words, but also serves to broadly identify the UD cable category. For the 600V UD cable category, the code word source was “colleges and universities”. The code word source is registered with the Aluminum Association.

## PROCEDURE FOR REGISTERING CODE WORDS FOR UD CABLES WITH THE ALUMINUM ASSOCIATION

1. Submit code word to The Aluminum Association with a complete description of the cable design it is intended to designate. (Words submitted may be chosen by the registrant or assigned by the Association office. Code words should be selected from the source used for the UD cable category involved without duplicating the code word for any other wire or cable product.)
2. If the word submitted does not appear on the Association Master List it will then be referred to the Electrical Technical Committee. (In the case of registration by a member of that Committee, copies of the initial letter requesting registration may be sent to other members of the Committee, thus combining Steps 1 and 2.)
3. Revised listings will be issued from time to time, as required.

## ABBREVIATIONS

The following abbreviations are used throughout this publication.

Al	- Aluminum
AWG	- American Wire Gauge
cmil	- Circular mils
Cu	- Copper
Aluminum 1350	- Electric conductor aluminum
Aluminum 1350 Eq	- Equivalent size aluminum 1350
AA8000	- AA8000 Series Electrical Aluminum Alloy Conductor Material

## **600 VOLT UD CABLE EXPLANATION OF IMPLIED AND SUFFIX NOTATIONS**

A) Code word without suffixes (Implied Notations). Construction details of basic cable design:

1. Type of construction of completed cable
2. H19 temper, aluminum 1350, solid or concentric\* stranded phase conductor/s
3. Standard thickness of phase conductor insulation
4. Type of phase conductor insulation - low density high molecular weight polyethylene
5. Type of neutral - stranded conductor or served wires
6. Neutral construction:
  - a. Stranded conductor - size, stranding and metal
  - b. Served wire - number and size of wires, metal, and approximate equivalent size
7. Bare or insulated (black or yellow) neutral

B) Suffix notations (other than implied) used to designate special features:

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. AA8000 - AA8000 Series Electrical Aluminum Alloy conductor material
3. Cpt - Compact stranding (phase conductor)
4. HD - High density polyethylene
5. XLP - Crosslinked polyethylene
6. YS\*\* - Black neutral with yellow stripe(s)
7. EYS\*\* or YES\*\* - Black neutral with extruded yellow stripe(s)
8. AR - Abuse Resistant cable to ICEA S-81-570
9. USE or USE-2 - to signify UL approval required

\* Note: concentric stranding includes compressed, unilay, or combination unilay type stranding.

\*\*Note: YS, EYS, and YES notations are only applicable to black neutral code words.

## EXAMPLES

<u>Code Word</u>	<u>Description</u>
Brown	Single conductor 600 volt UD cable, 450 kcmil 37/W aluminum 1350-H19 95 mils black low density high molecular weight polyethylene insulation.
Brown/XLP	Single conductor 600 volt UD cable, 450 kcmil 37/W aluminum 1350-H19, 95 mils black crosslinked polyethylene insulation.
Wells	Triplex 600 volt UD cable consisting of two-phase conductors, 2 AWG 7/W aluminum 1350-H19, 60 mils black low density high molecular weight polyethylene insulation and one neutral conductor, 4AWG 7/W aluminum 1350-H19, 60 mils yellow low density high molecular weight polyethylene insulation.
Stephens	Triplex 600 volt UD cable consisting of two-phase conductors, 2 AWG 7/W aluminum 1350-H19, 60 mils black low density high molecular weight polyethylene insulation and one neutral conductor, 4 AWG 7/W aluminum 1350-H19, 60 mils black low density high molecular weight polyethylene insulation.
Stephens/YS	Triplex 600 volt UD cable consisting of two-phase conductors, 2 AWG 7/W aluminum 1350-H19, 60 mils black low density high molecular weight polyethylene insulation and one neutral conductor, 4 AWG 7/W aluminum 1350-H19, 60 mils black with yellow stripe/s low density high molecular weight polyethylene insulation.
Stephens/XLP/EYS	Triplex 600 volt UD cable consisting of two-phase conductors, 2 AWG 7/W aluminum 1350-H19, 60 mils black crosslinked polyethylene insulation and one neutral conductor, 4 AWG 7/W aluminum 1350-H19, 60 mils black with extruded yellow stripe/s crosslinked polyethylene insulation.
Sweetbriar/XLPE/AR/EYS	Triplex 600 volt UD cable consisting of two-phase conductors, 4/0 AWG 19/W aluminum 1350-H19, 80 mils black abuse resistant crosslinked polyethylene insulation and one neutral conductor, 2/0 AWG 19/W aluminum 1350-H19, 80 mils black with extruded yellow stripes, abuse resistant crosslinked polyethylene insulation.
Sweetbriar/USE-2/EYS	Triplex 600 volt UD cable consisting of two-phase conductors, 4/0 AWG 19/W aluminum 1350-H19, 80 mils black crosslinked polyethylene insulation, and one neutral conductor, 2/0 AWG 19/W aluminum 1350-H19, 80 mils black with extruded yellow stripes, crosslinked polyethylene insulation. The insulated conductors meet the 90C wet and dry requirements for UL Type USE-2 conductors.

**TABLE A - SINGLE CONDUCTOR 600 VOLT UD CABLE**

CODE WORD	SIZE AWG/kcmil	NO. OF STRANDS	INSULATION THICKNESS MILS
Creighton	10	Solid	60
Ithaca	8	Solid	60
Cornell	8	7	60
Princeton	6	7	60
Mercer	4	7	60
Clemson	2	7	60
Kenyon	1	19	80
Harvard	1/0	19	80
Yale	2/0	19	80
Tufts	3/0	19	80
Beloit	4/0	19	80
Hofstra	250	37	95
Gonzaga	300	37	95
Rutgers	350	37	95
Dartmouth	400	37	95
Brown	450	37	95
Emory	500	37	95
Duke	600	61	110
Furman	700	61	110
Sewanee	750	61	110
Fordham	1000	61	110



**TABLE BI - TWIN PARALLEL 600 VOLT UD CABLE BLACK NEUTRAL**

CODE WORD	PHASE CONDUCTOR			NEUTRAL CONDUCTOR		
	SIZE AWG	NO. OF STRANDS	INSULATION THICKNESS, MILS	SIZE AWG	NO. OF STRANDS	INSULATION THICKNESS, MILS
Cleary	8	Solid	60	8	Solid	60
Biscayne	8	7	60	8	7	60
Kean	6	7	60	6	7	60
Gavilan	4	7	60	4	7	60
Atlas	2	7	60	2	7	60

**TABLE B2 - TWIN PARALLEL 600 VOLT UD CABLE YELLOW NEUTRAL**

CODE WORD	PHASE CONDUCTOR			NEUTRAL CONDUCTOR		
	SIZE AWG	NO. OF STRANDS	INSULATION THICKNESS, MILS	SIZE AWG	NO. OF STRANDS	INSULATION THICKNESS, MILS
Coe	8	Solid	60	8	Solid	60
Temple	8	7	60	8	7	60
Anderson	6	7	60	6	7	60
Foothill	4	7	60	4	7	60
Alpena	2	7	60	2	7	60

**TABLE C1 - DUPLEX 600 VOLT UD CABLE BLACK NEUTRAL**

CODE WORD	PHASE CONDUCTOR			NEUTRAL CONDUCTOR		
	SIZE AWG	NO. OF STRANDS	INSULATION THICKNESS, MILS	SIZE AWG, kcmil	NO. OF STRANDS	INSULATION THICKNESS, MILS
Alcorn	8	Solid	60	8	Solid	60
Bard	8	7	60	8	7	60
Clafin	6	7	60	6	7	60
Delgado	4	7	60	4	7	60
Everett	2	7	60	2	7	60
Cedarcrest	2	7	60	4	7	60
Findlay	2/0	19	80	2/0	19	80
Hanover	4/0	19	80	4/0	19	80
Glenville	350	37	95	350	37	95

**TABLE C2 - DUPLEX 600 VOLT UD CABLE YELLOW NEUTRAL**

CODE WORD	PHASE CONDUCTOR			NEUTRAL CONDUCTOR		
	SIZE AWG	NO. OF STRANDS	INSULATION THICKNESS, MILS	SIZE AWG	NO. OF STRANDS	INSULATION THICKNESS, MILS
Otterbein	8	Solid	60	8	Solid	60
Parsons	8	7	60	8	7	60
Reed	6	7	60	6	7	60
Shelton	4	7	60	4	7	60
El Centro	4	7	60	6	7	60
Toledo	2	7	60	2	7	60

## TABLE D - TWIN CONCENTRIC 600 VOLT UD CABLE

Two parallel phase conductors concentrically served with copper neutral wires

CODE WORD	TWO PHASE CONDUCTORS			NEUTRAL CONDUCTOR	
	SIZE AWG/kcmil	NO. OF STRANDS	INSULATION THICKNESS	NO. AND SIZE OF WIRES	APPROX. EQUIV. ALUMINUM 1350 SIZE AWG/kcmil
			MILS	AWG	
Sacramento	6	7	60	5 #14	4
Drexel	4	7	60	6 #14	4
Averett	2	Solid	60	6 #14	4
Greenbriar	2	Solid	60	10 #14	2
Simmons	2	7	60	6 #14	4
Prairie View	2	7	60	8 #14	3
Emmanuel	2	7	60	10 #14	2
Colby	1	Solid	80	8 #14	1
Presentation	1	Solid	80	13 #14	1
Connors	1	19	80	8 #14	3
Smith	1	19	80	13 #14	1
Bethel	1/0	Solid	80	10 #14	2
Endicott	1/0	Solid	80	16 #14	1/0
Wheaton	1/0	19	80	10 #14	2
Clarke	1/0	19	80	16 #14	1/0
Manor	2/0	Solid	80	13 #14	1
Howard	2/0	19	80	10 #14	2
Bradford	2/0	Solid	80	20 #14	2/0
Wellesley	2/0	19	80	13 #14	2/0
Bennett	2/0	19	80	20 #14	2/0
Georgetown	3/0	19	80	13 #14	1
Radcliffe	3/0	19	80	16 #14	1/0
Westbrook	3/0	Solid	80	16 #14	1/0
Cottey	3/0	Solid	80	16 #12	3/0
Lesley	3/0	19	80	16 #12	3/0
McNeese	4/0	19	80	13 #14	1
Juniata	4/0	19	80	16 #14	1/0
Midway	4/0	Solid	80	20 #14	2/0
Garland	4/0	Solid	80	20 #12	4/0
Barnard	4/0	19	80	20 #14	2/0
Vennard	4/0	19	80	13 #12	2/0
Ursuline	4/0	19	80	20 #12	4/0
Harcum	250	Solid	95	16 #12	3/0
Stratford	250	Solid	95	16 #10	250
Keuka	250	37	95	20 #14	2/0

## TABLE D - TWIN CONCENTRIC 600 VOLT UD CABLE (continued)

Two parallel phase conductors concentrically served with copper neutral wires

CODE WORD	TWO PHASE CONDUCTORS			NEUTRAL CONDUCTOR	
	SIZE AWG/kcmil	NO. OF STRANDS	INSULATION THICKNESS  MILS	NO. AND SIZE OF WIRES  AWG	APPROX. EQUIV. ALUMINUM 1350 SIZE AWG/kcmil
Xavier	250	37	95	24 #14	3/0
Marymount	250	37	95	16 #12	3/0
Judson	250	37	95	16 #10	250
Felician	300	Solid	95	20 #12	4/0
Mercy	300	Solid	95	20 #10	300
Barry	300	37	95	20 #12	4/0
Annhurst	300	37	95	20 #10	300
Bowdoin	350	37	95	16 #12	3/0
Barrington	350	37	95	20 #12	4/0
Bennington	350	37	95	21 #12	4/0
Burlington	350	37	95	13 #10	4/0
Oberlin	500	37	95	30 #12	300
Chatham	500	37	95	19 #10	300
Fairleigh-Dickinson	750	61	110	28 #10	450

**TABLE E1 - TRIPLE PARALLEL 600 VOLT UD CABLE BLACK NEUTRAL**

CODE WORD	TWO PHASE CONDUCTORS			NEUTRAL CONDUCTORS		
	SIZE AWG/kcmil	NO. OF STRANDS	INSULATION THICKNESS MILS	SIZE AWG/kcmil	NO. OF STRANDS	INSULATION THICKNESS MILS
Kittrell	8	7	60	8	7	60
Don Bosco	6	7	60	6	7	60
Asbury	4	7	60	4	7	60
Lasell	2	7	60	4	7	60
Sussex	2	7	60	2	7	60
Zion	1	19	80	1	19	80
Rosary	1/0	19	80	2	7	60
Luther	1/0	19	80	1/0	19	80
Ursinus	2/0	19	80	2	7	60
Peace	2/0	19	80	1	19	80
Post	2/0	19	80	1/0	19	80
Lehman	2/0	19	80	2/0	19	80
Marywood	3/0	19	80	1/0	19	80
Nyack	3/0	19	80	3/0	19	80
Danville	4/0	19	80	1/0	19	80
Belmont	4/0	19	80	2/0	19	80
Glassboro	4/0	19	80	4/0	19	80
Baruch	250	37	95	3/0	19	80
Ladycliff	250	37	95	250	37	95
Benedict	300	37	95	2/0	19	80
Ottawa	300	37	95	3/0	19	80
Great Falls	300	37	95	4/0	19	80
Rockhurst	300	37	95	300	37	95
Belleville	350	37	95	3/0	19	80
Grinnell	350	37	95	4/0	19	80
Upsala	350	37	95	350	37	95
Antioch	500	37	95	300	37	95
Trenton	500	37	95	350	37	95
Jersey City	500	37	95	500	37	95
Redlands	700	61	110	350	37	95
Stanford	700	61	110	700	61	110
Queensborough	750	61	110	350	37	95
Quincy	750	61	110	450	37	95
Kingsborough	750	61	110	500	37	95
Long Island	750	61	110	750	61	110
Malone	1000	61	110	1000	61	110

**TABLE E2 - TRIPLE PARALLEL 600 VOLT UD CABLE YELLOW NEUTRAL**

CODE WORD	TWO PHASE CONDUCTORS			NEUTRAL CONDUCTOR		
	SIZE AWG/kcmil	NO. OF STRANDS	INSULATION THICKNESS MILS	SIZE AWG/kcmil	NO. OF STRANDS	INSULATION THICKNESS MILS
Drew	4	7	60	4	7	60
Salem	2	7	60	4	7	60
Union	2	7	60	2	2	60
Youngstown	1	19	80	1	19	80
Queens	1/0	19	80	2	7	60
Paterson	1/0	19	80	1/0	19	80
Yankton	2/0	19	80	2	7	60
Goucher	2/0	19	80	1	19	80
Yuba	2/0	19	80	1/0	19	80
Caldwell	2/0	19	80	2/0	19	80
Mills	3/0	19	80	1/0	19	80
Middlesex	3/0	19	80	3/0	19	80
Brentwood	4/0	19	80	1/0	19	80
Trinity	4/0	19	80	2/0	19	80
Bronx	4/0	19	80	4/0	19	80
Baltimore	250	37	95	2/0	19	80
Centenary	250	37	95	3/0	19	80
Dutchess	250	37	95	250	37	95
Occidental	350	37	95	3/0	19	80
Newcomb	350	37	95	4/0	19	80
Briarcliff	350	37	95	350	37	95
Winthrop	500	37	95	300	37	95
Kings	500	37	95	350	37	95
Stevenson	500	37	95	500	37	95
Saint Peter's	750	61	110	350	37	95
Transylvania	750	61	110	450	37	95
Nassau	750	61	110	500	37	95
Staten Island	750	61	110	750	61	110

**TABLE F1 - TRIPLEX 600 VOLT UD CABLE BLACK NEUTRAL**

CODE WORD	TWO PHASE CONDUCTORS			NEUTRAL CONDUCTOR		
	SIZE AWG/kcmil	NO. OF STRANDS	INSULATION THICKNESS MILS	SIZE AWG/kcmil	NO. OF STRANDS	INSULATION THICKNESS MILS
Dowling	8	7	60	8	7	60
Erskine	6	7	60	6	7	60
Vassar	4	7	60	4	7	60
Stephens	2	7	60	4	7	60
Ramapo	2	7	60	2	7	60
Grossmont	1	19	80	1	19	80
Brenau	1/0	19	80	2	7	60
Bergen	1/0	19	80	1/0	19	80
Fisk	2/0	19	80	2	7	60
Converse	2/0	19	80	1	19	80
Shaw	2/0	19	80	1/0	19	80
Hunter	2/0	19	80	2/0	19	80
Calvert	3/0	19	80	2	7	60
Chase	3/0	19	80	1	19	80
Hollins	3/0	19	80	1/0	19	80
Rockland	3/0	19	80	3/0	19	80
Coburn	4/0	19	80	1	19	80
Molloy	4/0	19	80	1/0	19	80
Sweetbriar	4/0	19	80	2/0	19	80
Monmouth	4/0	19	80	4/0	19	80
Aquinas	250	37	95	2/0	19	80
Pratt	250	37	95	3/0	19	80
Yeshiva	250	37	95	250	37	95
Allen	300	37	95	2/0	19	80
Greenville	350	37	95	1/0	19	80
Gloucester	350	37	95	3/0	19	80
Wesleyan	350	37	95	4/0	19	80
Newark	350	37	95	350	37	95
Oid Dominion	500	37	95	4/0	19	80
Holyoke	500	37	95	300	37	95
Rider	500	37	95	350	37	95
Westchester	500	37	95	500	37	95
Villanova	750	61	110	350	37	95
Voorhees	750	61	110	450	37	95
Fairfield	750	61	110	500	37	95
Seton Hall	750	61	110	750	61	110

**TABLE F2 - TRIPLEX 600 VOLT UD CABLE YELLOW NEUTRAL**

CODE WORD	TWO PHASE CONDUCTORS			NEUTRAL CONDUCTOR		
	SIZE AWG/kcmil	NO. OF STRANDS	INSULATION THICKNESS MILS	SIZE AWG/kcmil	NO. OF STRANDS	INSULATION THICKNESS MILS
Pfeiffer	8	7	60	8	7	60
Pepperdine	6	7	60	6	7	60
Tarleton	4	7	60	6	7	60
Tift	4	7	60	4	7	60
Wells	2	7	60	4	7	60
Julliard	2	7	60	2	7	60
LaVerne	1	19	80	3	7	60
Guilford	1	19	80	1	19	80
Belhaven	1/0	19	80	4	7	60
Marion	1/0	19	80	2	7	60
Montclair	1/0	19	80	1/0	19	80
Henderson	2/0	19	80	4	7	60
Quinnipiac	2/0	19	80	2	7	60
Bliss	2/0	19	80	1	19	80
Rensselaer	2/0	19	80	1/0	19	80
Bloomfield	2/0	19	80	2/0	19	80
Whittier	3/0	19	80	1/0	19	80
Pace	3/0	19	80	3/0	19	80
Houghton	4/0	19	80	2	7	60
Manhattanville	4/0	19	80	1/0	19	80
Regis	4/0	19	80	2/0	19	80
Manhattan	4/0	19	80	4/0	19	80
Indiana	250	37	95	2/0	19	80
Adelphi	250	37	95	3/0	19	80
Sullivan	250	37	95	250	37	95
Boulder	300	37	95	3/0	19	80
Alverno	300	37	95	4/0	19	80
McCook	350	37	95	3/0	19	80
Concordia	350	37	95	4/0	19	80
New York	350	37	95	350	37	95
De Pauw	500	37	95	250	37	95
Elmira	500	37	95	300	37	95
Brooklyn	500	37	95	350	37	95
Saint John's	500	37	95	500	37	95
Colgate	750	61	110	350	37	95
McKendree	750	61	110	450	37	95
Bridgeport	750	61	110	500	37	95
Iona	750	61	110	750	61	110

**TABLE G1 - QUAD-PARALLEL 600 VOLT UD CABLE BLACK NEUTRAL**

CODE WORD	THREE PHASE CONDUCTORS			NEUTRAL CONDUCTOR		
	SIZE AWG/kcmil	NO. OF STRANDS	INSULATION THICKNESS MILS	SIZE AWG/kcmil	NO. OF STRANDS	INSULATION THICKNESS MILS
Aims	4	7	60	4	7	60
Linfield	2	7	60	4	7	60
Goshen	2	7	60	2	7	60
Cerritos	1/0	19	80	2	7	60
Kellogg	1/0	19	80	1/0	19	80
Avila	2/0	19	80	1	19	80
Itasca	2/0	19	80	2/0	19	80
Laney	3/0	19	80	1/0	19	80
Carlow	3/0	19	80	3/0	19	80
MacMurray	4/0	19	80	1/0	19	80
Alfred	4/0	19	80	2/0	19	80
Hiwassee	4/0	19	80	4/0	19	80
Oblate	250	37	95	3/0	19	80
Urbana	250	37	95	250	37	95
San Diego	350	37	95	3/0	19	80
Joliet	350	37	95	4/0	19	80
Harriman	350	37	95	350	37	95
Virginia	500	37	95	4/0	19	80
Fredionia	500	37	95	250	37	95
Sullins	500	37	95	300	37	95
Berry	500	37	95	350	37	95
Lackawanna	500	37	95	500	37	95
Loma Linda	700	61	110	350	37	95
Muhlenberg	750	61	110	4/0	19	80
Wilkes	750	61	110	350	37	95
Tombrock	750	61	110	500	37	95
Hartnell	750	61	110	750	61	110
Southwestern	1000	61	110	750	61	110



**TABLE G2 - QUAD-PARALLEL 600 VOLT UD CABLE YELLOW NEUTRAL**

CODE WORD	THREE PHASE CONDUCTORS			NEUTRAL CONDUCTOR		
	SIZE AWG/kcmil	NO. OF STRANDS	INSULATION THICKNESS MILS	SIZE AWG/kcmil	NO. OF STRANDS	INSULATION THICKNESS MILS
Loras	4	7	60	4	7	60
Chaminade	2	7	60	4	7	60
Adrian	2	7	60	2	7	60
Kent	1/0	19	80	2	7	60
Carthage	1/0	19	80	1/0	19	80
Kirkland	2/0	19	80	1	19	80
Lycoming	2/0	19	80	2/0	19	80
Biola	3/0	19	80	1/0	19	80
Newberry	3/0	19	80	3/0	19	80
Albemarle	4/0	19	80	2/0	19	80
Millikin	4/0	19	80	4/0	19	80
Macalester	250	37	95	3/0	19	80
Owosso	250	37	95	250	37	95
Babson	350	37	95	4/0	19	80
Hamline	350	37	95	350	37	95
Vincennes	500	37	95	300	37	95
Salesian	500	37	95	350	37	95
Covenant	500	37	95	500	37	95
Victoria	750	61	110	350	37	95
Hesston	750	61	110	500	37	95
Shoreline	750	61	110	750	61	110

**TABLE H1 - QUADRUPLIX 600 VOLT UD CABLE BLACK NEUTRAL**

CODE WORD	THREE PHASE CONDUCTORS			NEUTRAL CONDUCTOR		
	SIZE AWG/kcmil	NO. OF STRANDS	INSULATION THICKNESS MILS	SIZE AWG/kcmil	NO. OF STRANDS	INSULATION THICKNESS MILS
Tulsa	4	7	60	4	7	60
Miami	2	7	60	6	7	60
Dyke	2	7	60	4	7	60
Wittenberg	2	7	60	2	7	60
Notre Dame	1/0	19	80	2	7	60
Purdue	1/0	19	80	1/0	19	80
Syracuse	2/0	19	80	1	19	80
Lafayette	2/0	19	80	2/0	19	80
Swarthmore	310	19	80	1/0	19	80
Davidson	3/0	19	80	3/0	19	80
Mc Pherson	4/0	19	80	2	7	60
Doane	4/0	19	80	1/0	19	80
Wake Forest	4/0	19	80	2/0	19	80
Earlham	4/0	19	80	4/0	19	80
Rust	250	37	95	3/0	19	80
Palomar	250	37	95	250	37	95
Slippery Rock	350	37	95	4/0	19	80
Niagara	350	37	95	350	37	95
Page	500	37	95	350	37	95
Morehouse	500	37	95	300	37	95
Wofford	500	37	95	350	37	95
Marshall	500	37	95	500	37	95
Westminster	750	61	110	350	37	95
Windham	750	61	110	500	37	95
Tabor	750	61	110	750	61	110

**TABLE H2 - QUADRUPLEX 600 VOLT UD CABLE YELLOW NEUTRAL**

CODE WORD	THREE PHASE CONDUCTORS			NEUTRAL CONDUCTOR		
	SIZE AWG/kcmil	NO. OF STRANDS	INSULATION THICKNESS MILS	SIZE AWG/kcmil	NO. OF STRANDS	INSULATION THICKNESS MILS
Lamar	4	7	60	4	7	60
Rockmont	2	7	60	4	7	60
Emporia	2	7	60	2	7	60
Piedmont	1/0	19	80	2	7	60
Southern	1/0	19	80	1/0	19	80
Summit	2/0	19	80	2	7	60
Shorter	2/0	19	80	1	19	80
Brandeis	2/0	19	80	2/0	19	80
Skidmore	3/0	19	80	1/0	19	80
Brevard	3/0	19	80	3/0	19	80
Washburn	4/0	19	80	2	7	60
Midland	4/0	19	80	1/0	19	80
Lander	4/0	19	80	2/0	19	80
Bucknell	4/0	19	80	4/0	19	80
Bradley	250	37	95	2/0	19	80
Dawson	250	37	95	3/0	19	80
Evangel	250	37	95	250	37	95
Marquette	350	37	95	3/0	19	80
Susquehanna	350	37	95	4/0	19	80
Pomona	350	37	95	350	37	95
Muskegon	500	37	95	250	37	95
Emerson	500	37	95	300	37	95
Valparaiso	500	37	95	350	37	95
Citadel	500	37	95	500	37	95
Elon	750	61	110	350	37	95
Puget Sound	750	61	110	500	37	95
Franklin	750	61	110	750	61	110

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Adelphi	F2	250	13	Briarcliff	E2	350	11
Adrian	G2	2	15	Bridgeport	F2	750	13
Aims	G1	4	14	Bronx	E2	4/0	11
Albemarle	G2	4/0	15	Brooklyn	F2	500	13
Alcorn	C1	8	7	Brown	A	450	6
Alfred	G1	4/0	14	Bruegel	*	3/0	-
Allen	F1	300	12	Bucknell	H2	4/0	17
Alpena	B2	2	7	Burlington	D	350	9
Alverno	F2	300	13	Burns	*	3/0	-
Anderson	B2	6	7	Byron	*	4/0	-
Angle	*	2/0	-	Caldwell	E2	2/0	11
Annhurst	D	300	9	Calvert	FI	3/0	12
Antioch	E1	500	10	Carlow	G1	3/0	14
Aquinas	F1	250	12	Carthage	G2	1/0	15
Arch	*	2	-	Cedarcrest	C1	2	7
Asbury	E1	4	10	Centenary	E2	250	11
Atlas	B1	2	7	Cerritos	G1	1/0	14
Averett	D	2	8	Cezanne	*	2	-
Avila	G1	2/0	14	Chaminade	G2	2	14
Babson	G2	350	15	Chase	F1	3/0	12
Bach	*	3/0	-	Chatham	D	500	9
Baltimore	E2	250	11	Chopin	*	4/0	-
Bard	C1	8	7	Citadel	H2	500	17
Barnard	D	4/0	8	Claflin	CI	6	7
Barrington	D	350	9	Clarke	D	1/0	8
Barry	D	300	9	Cleary	BI	8	7
Baruch	E1	250	10	Clemson	A	2	6
Beam	*	4	-	Coburn	F1	4/0	12
Belhaven	F2	1/0	13	Coe	B2	8	7
Belleville	E1	350	10	Colby	D	1	8
Belmont	E1	4/0	10	Colgate	F2	750	13
Beloit	A	4/0	6	Concordia	F2	350	13
Benedict	E1	300	10	Connors	D	1	8
Benet	*	2	-	Converse	FI	2/0	12
Bennett	D	2/0	8	Cornell	A	8	6
Bennington	D	350	9	Corot	JI	4/0	-
Bergen	F1	1/0	12	Cottey	D	3/0	8
Berry	G1	500	14	Courbet	*	400	-
Bethel	D	1/0	8	Covenant	G2	500	15
Biola	G2	3/0	15	Creighton	A	10	6
Biscayne	B1	8	7	Dante	*	4	-
Bliss	F2	2/0	13	Danville	E1	4/0	10
Bloomfield	F2	2/0	13	Dartmouth	A	400	6
Bosch	*	500	-	Daumier	*	500	-
Botticelli	*	1	-	Davidson	H1	3/0	16
Boulder	F2	300	13	Dawson	H2	250	17
Bowdoin	D	350	9	Degas	*	250	-
Bradford	D	2/0	8	Delgado	C1	4	7
Bradley	H2	250	17	De Pauw	F2	500	13
Brahms	*	2/0	-	Dickey	*	4/0	-
Brandeis	H2	2/0	17	Doane	H1	4/0	16
Brenau	F1	1/0	12	Don Bosco	E1	6	10
Brentwood	E2	4/0	11	Dowling	F1	8	12
Brevard	H2	3/0	17	Drew	E2	4	11

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Drexel	D	4	8	Harvard	A	1/0	6
Dufay	*	250	-	Haydn	*	1/0	-
Duke	A	600	6	Henderson	F2	2/0	13
Dutchess	E2	250	11	Hesston	G2	750	15
Dyke	H1	2	16	Hiwassee	G1	4/0	14
Earlham	H1	4/0	16	Hofstra	A	250	6
El Centro	C2	4	7	Holbein	*	4/0	-
El Greco	*	3/0	-	Hollins	F1	3/0	12
Elmira	F2	500	13	Holyoke	F1	500	12
Elon	H2	750	17	Horace	*	1/0	-
Emerson	H2	500	17	Houghton	F2	4/0	13
Emmanuel	D	2	8	Howard	D	2/0	8
Emory	A	500	6	Hunter	F1	2/0	12
Emporia	H2	2	17	Indiana	F2	250	13
Endicott	D	1/0	8	Iona	F2	750	13
Erskine	F1	6	12	Itasca	G1	2/0	14
Evangel	H2	250	17	Ithaca	A	8	6
Everett	C1	2	7	Ives	*	2/0	-
Fairfield	F1	750	12	Jersey City	E1	500	10
Fairleigh-Dickinson	D	750	9	Joists	J1	1/0	-
Felician	D	300	9	Joliet	G1	350	14
Findlay	C1	2/0	7	Judson	D	250	9
Fisk	F1	2/0	12	Julliard	F2	2	13
Foothill	B2	4	7	Juniata	D	4/0	8
Fordham	A	1000	6	Kean	B1	6	7
Franklin	H2	750	17	Keats	*	2/0	-
Fredonia	G1	500	14	Kellogg	G1	1/0	14
Frost	II	2/0	-	Kent	G2	1/0	15
Furman	A	700	6	Kenyon	A	1	6
Gable	*	1/0	-	Keuka	D	250	8
Garland	D	4/0	8	Rilmer	*	250	-
Gavilan	B1	4	7	Kings	E2	500	11
Georgetown	D	3/0	8	Kingsborough	E1	750	10
Glassboro	E1	4/0	10	Kirkland	G2	2/0	15
Glenville	C1	350	1.3	Kittrell	E1	8	10
Gloucester	F1	350	12	Lackawanna	G1	500	14
Gonzaga	A	300	6	Ladycliff	E1	250	10
Goshen	G1	2	14	Lafayette	H1	2/0	16
Goucher	E2	2/0	11	Lamar	H2	4	17
Gould	*	350	-	Lander	H2	4/0	17
Goya	*	2/0	-	Laney	G1	3/0	14
Great Falls	E1	300	10	Lanier	*	350	-
Greenbriar	D	2	8	Lasell	E1	2	10
Greenville	F1	350	12	LaVerne	F2	1	13
Grinnell	E1	350	10	Lehman	E1	2/0	10
Grossmont	F1	1	12	Lesley	D	3/0	8
Guilford	F2	1	13	Linfield	G1	2	14
Hals	*	350	-	Liszt	*	1	-
Hamline	G2	350	15	Loma Linda	G1	700	14
Handel	*	1	-	Long Island	E1	750	10
Hanover	C1	4/0	7	Loras	G2	4	15
Harcum	D	250	8	Lully	*	500	-
Harriman	G1	350	14	Luther	E1	1/0	10
Hartnell	G1	750	14	Lycoming	G2	2/0	15

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Macalester	G2	250	15	Peace	E1	2/0	10
MacMurray	G1	4/0	14	Pepperdine	F2	6	13
Malone	E1	1000	10	Pfeiffer	F2	8	13
Manhattan	F2	4/0	13	Piedmont	H2	1/0	17
Manhattanville	F2	4/0	13	Plate	*	4/0	-
Manor	D	2/0	8	Poe	*	1/0	-
Marion	F2	1/0	13	Pomona	H2	350	17
Marquette	H2	350	17	Post	E1	2/0	10
Marshall	H1	500	16	Prairie View	D	2	8
Marymount	D	250	9	Pratt	F1	250	12
Marywood	E1	3/0	10	Presentation	D	1	8
Mercer	A	4	6	Princeton	A	6	6
Mercy	D	300	9	Puget Sound	H2	750	17
Miami	H1	2	16	Purdue	H1	1/0	16
Middlesex	E2	3/0	11	Queens	E2	1/0	11
Midland	H2	4/0	17	Queensborough	E1	750	10
Midway	D	4/0	8	Quincy	E1	750	10
Millikin	G2	4/0	15	Quinnipiac	F2	2/0	14
Mills	E2	3/0	11	Radcliffe	D	3/0	8
Milton	*	1	-	Ramapo	F1	2	12
Molloy	F1	4/0	12	Rameau	*	400	-
Monet	*	1	-	Raphel	*	1/0	-
Monmouth	F1	4/0	12	Ravel	*	3/0	-
Montclair	F2	1/0	13	Redlands	E1	700	10
Moreau	*	250	-	Reed	C2	6	7
Morehouse	H1	500	16	Regis	F2	4/0	13
Mozart	*	4/0	-	Renoir	*	4	-
Muhlenberg	G1	750	14	Rensselaer	F2	2/0	13
Muskegon	H2	500	17	Rider	F1	500	12
McCook	F2	350	13	Rockhurst	E1	300	10
McKendree	F2	750	13	Rockland	F1	3/0	12
McNeese	D	4/0	8	Rockmont	H2	2	17
McNeil	*	350	-	Rosary	E1	1/0	10
McPherson	H1	4/0	16	Rousseau	*	400	-
Nassau	E2	750	11	Rubens	*	2/0	-
Newark	F1	350	12	Rust	H1	250	16
Newberry	G2	3/0	15	Rutgers	A	350	6
Newcomb	E2	350	11	Sacramento	D	6	8
New York	F2	350	13	Saint John's	F2	500	13
Niagara	H1	350	16	Saint Peter's	E2	750	11
Notre Dame	H1	1/0	16	Salem	E2	2	11
Nyack	E1	3/0	10	Salesian	G2	500	15
Oberlin	D	500	9	San Diego	G1	350	14
Oblate	G1	250	14	Schubert	*	500	-
Occidental	E2	350	11	Schuetz	*	350	-
Old Dominion	F1	500	12	Seton Hall	F1	750	12
Ottawa	E1	300	10	Sewanee	A	750	6
Otterbein	C2	8	7	Shaw	F1	2/0	12
Owosso	G2	250	15	Shelley	*	3/0	-
Pace	F2	3/0	13	Shelton	C2	4	7
Page	H1	500	16	Shoreline	G2	750	15
Palomar	H1	250	16	Shorter	H2	2/0	17
Parsons	C2	8	7	Simmons	D	2	8
Paterson	E2	1/0	11	Skidmore	H2	3/0	17

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Slippery Rock	H1	350	16	Vincennes	G2	500	15
Smith	D	1	8	Virgil	*	2	-
Soffit	*	1	-	Virginia	G1	500	14
Southern	H2	1/0	17	Voorhees	F1	750	12
Southwestern	G1	1000	14	Wagner	*	250	-
Stanford	E1	700	10	Wake Forest	H1	4/0	16
Staten Island	E2	750	11	Washburn	H2	4/0	17
Stephens	F1	2	12	Wellesley	D	2/0	8
Stevenson	E2	500	11	Wells	F2	2	13
Stratford	D	250	8	Wesleyan	F1	350	12
Strauss	*	750	-	Westbrook	D	3/0	8
Stud	*	3/0	-	Westchester	F1	500	12
Sullins	G1	500	14	Westminster	H1	750	16
Sullivan	F2	250	13	Wheaton	D	1/0	8
Summit	H2	2/0	17	Whitman	IT	4	-
Susquehanna	H2	350	17	Whittier	F2	3/0	13
Sussex	E1	2	10	Wilkes	G1	750	14
Swarthmore	H1	3/0	16	Windham	H1	750	16
Sweetbriar	F1	4/0	12	Winthrop	E2	500	11
Syracuse	H1	2/0	16	Wittenberg	H1	2	16
Tabor	H1	750	16	Wofford	H1	500	16
Tarleton	F2	4	13	Xavier	D	250	9
Teleman	*	400	-	Yale	A	2/0	6
Temple	B2	8	7	Yankton	E2	2/0	11
Tift	F2	4	13	Yeshiva	F1	250	12
Titan	*	2	-	Youngstown	E2	1	11
Toledo	C2	2	7	Yuba	E2	2/0	11
Tombrock	G1	750	14	Zion	E1	1	10
Transylvania	E2	750	11				
Trenton	E1	500	10				
Trinity	E2	4/0	11				
Tufts	A	3/0	6				
Tulsa	H1	4	16				
Union	E2	2	11				
Upsala	E1	350	10				
Urbana	G1	250	14				
Ursinus	E1	2/0	10				
Ursuline	D	4/0	8				
Valparaiso	H2	500	17				
Van Gogh	*	1/0	-				
Vassar	F1	4	12				
Vennard	D	4/0	8				
Verdi	*	1/0	-				
Vernet	*	750	-				
Victoria	G2	750	15				
Villanova	F1	750	12				

\* Obsolete 5, 15, or 25kV UD cable design

## INDUSTRY STANDARDS RELATING TO UD CABLE

ASTM	B 230	- Standard Specification for Aluminum 1350-H19 Wire for Electrical Purposes
	B 231	- Standard Specification for Concentric-Lay-Stranded Aluminum 1350 Conductors
	B 400	- Standard Specification for Compact Round Concentric-Lay Stranded Aluminum 1350 Conductors
	B-609	- Standard Specification for Aluminum 1350 Round Wire, Annealed and Intermediate Tempers, for Electrical Purposes
	B800	- Standard Specification for 8000 Series Aluminum Alloy Wire for Electrical Purposes - Annealed and Intermediate Tempers
	B801	- Standard Specification for Concentric-Lay-Stranded Conductors of 8000 Series Aluminum Alloy for Subsequent Covering or Insulation.
ICEA	S-61-402	- ICEA-NEMA Standards Publication Thermoplastic-Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy
	S-66-524	- ICEA-NEMA Standards Publication Crosslinked-Thermosetting-Polyethylene-Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy
	S-81-570	- ICEA Standard for 600V Cables of Ruggedized Design for Direct Burial Installations as Single Conductors or Assemblies of Single Conductors
REA	U-2	- REA Specification for 600 Volt Underground Power Cable
UL	854	- Standard for Service-Entrance Cables