Electric Utility Overhead Conductors

Covered Overhead Conductor — Line Wire

Single Conductor LLDPE or XLPE Covered Line Wire



Product Construction:

Complete Cable:

Weatherproof line wire consists of single conductor covered with either Linear Low-Density Polyethylene (LLDPE) or Cross-linked Polyethylene (XLPE). Conductors may be compressed or concentric strand of ACSR, AAC or solid, compressed or concentric strand copper. Weatherproof line wire meets the requirements of ANSI/ICEA S-70-547.

Conductors:

Different conductor types are available. Solid or stranded MHD copper, compressed or concentric HD aluminum, aluminum alloy, or ACSR are all options that are available.

The conductors meet the requirements of ASTM B3, ASTM B8, ASTM B231, ASTM B232, ASTM B400 or ASTM B496 as applicable. For aluminum and ACSR conductors, the direction of lay of the outer layer of the strand is right-hand. For copper conductors, the direction of lay of the outer layer of the strand is left-hand.

For products manufactured with aluminum conductors, the product is available with conductor corrosion-resistant inhibitor treatment.

Complete Cable (cont'd.):

Covering:

Black, Linear Low-Density Polyethylene (LLDPE) or black extruded Cross-linked Polyethylene (XLPE) coverings are available.

There is no voltage rating.

Features and Benefits:

The covering provides mechanical protection to the conductor and is resistant to weathering and chemicals. If the conductors accidentally come into contact due to high winds, falling tree limbs or other disturbances, the covering resists short circuits and the tendency for conductors to weld together.

Applications:

Weatherproof line wire is used for overhead transmission and distribution lines. Covered line wire is not an electrically insulated cable. Therefore, it should be installed on insulators, and users should treat line wire as bare conductor for personal safety.

Options:

- Medium-Density Polyethylene (MDPE)
- High-Density Cross-linked Polyethylene (HDXLPE)
- Annealed (soft drawn) copper for transformer drop and covered ground wire
- Conductor corrosion-resistant inhibitor treatment
- · Sequential print marking



Covered Overhead Conductor — Line Wire

Single Conductor LLDPE or XLPE Covered Line Wire

COVERED AAC ALUMINUM CONDUCTOR, CONCENTRIC-LAY-STRANDED												
	SIZE AWG OR	NO. OF	COVER THKN.	APPROX.	APPROX. WEIGHT LB/10				AMDAOITV		DACKACING (4)	
						TOTAL		RATED STRENGTH	AMPACITY		PACKAGING (4) LENGTH	
CODE WORD (1)	kcmil	WIRES	INCHES	CABLE O.D.	AL	LLDPE	XLPE	LBS	PE (2)	XLPE (3)	TYPE & SIZE	FT
Apple	6	1	0.030	0.224	24.6	33.4	33.4	440	105	120	NR 30.18	12300
											COIL	4000
Plum	6	7	0.030	0.238	24.6	33.8	33.8	505	105	120	NR 30.18	10100
											COIL	4000
Pear	4	1	0.030	0.266	39.1	50.3	50.3	710	140	160	NR 30.18	8600
											COIL	2400
Apricot	4	7	0.030	0.284	39.1	50.9	50.9	795	140	160	NR 30.18	7000
											COIL	250
Cherry	2	1	0.045	0.350	62.2	83.2	83.2	1105	185	210	NR 30.18	5000
											COIL	2000
Peach	2	7	0.045	0.372	62.2	83.9	83.9	1215	185	210	NR 32.24	7500
											COIL	1500
Nectarine	1	7	0.045	0.407	78.4	104.0	104.0	1475	200	230	NR 32.24	6000
											COIL	1200
Quince	1/0	7	0.060	0.476	99.0	133.5	133.5	1790	245	280	NR 32.24	4700
											COIL	1000
Orange	2/0	7	0.060	0.521	124.8	163.5	163.5	2260	290	335	NR 32.24	3800
Fig	3/0	7	0.060	0.569	157.3	200.6	200.6	2735	325	375	NR 40.24	4400
Olive	4/0	7	0.060	0.626	198.3	247	247	3445	375	430	NR 40.24	3500
Mulberry	266.8	19	0.060	0.694	250	304	304	4475	430	500	NR 40.24	3000
Silverbelt	266.8	19	0.080	0.733	250	322	322	4475	430	500	NR 40.24	3000
Anona	336.4	19	0.060	0.764	315	375	375	5535	500	580	NR 40.24	2500
Crabapple	336.4	19	0.080	0.804	315	395	395	5535	495	575	NR 40.24	2500
Chinquapin	350.0	19	0.060	0.778	328	389	389	5750	510	595	NR 40.24	2500
Ginkgo	350.0	19	0.080	0.818	328	410	410	5750	510	595	NR 40.24	2400
Molles	397.5	19	0.080	0.860	373	459	459	6400	545	640	NR 40.24	2000
Ash	400.0	19	0.080	0.862	375	462	462	6440	550	640	NR 40.24	2000
Huckleberry	477.0	37	0.080	0.930	447	543	543	7820	610	715	NR 50.32	3300
Paw Paw	556.5	37	0.080	0.991	522	625	625	8950	675	790	NR 50.32	2800
Breadfruit	636.0	61	0.095	1.080	596	724	724	10200	725	850	NR 50.32	2500
Persimmon	795.0	61	0.095	1.185	745	888	888	12900	830	975	NR 50.32	2200
Grapefruit	1033.5	61	0.095	1.325	969	1132	1132	16400	890	1055	NR 50.32	1700
Mango	1590.0	61	0.110	1.629	1490	1726	1726	24300	1240	1470	NR 58.32	1700

⁽¹⁾ Code words shown are for LLDPE products; add the suffix "XLP" to the code word for cross-linked products. Example: Walnut/XLP.



⁽²⁾ Based on a conductor temperature of 75°C at 60 Hz and the following conditions: 25°C ambient temperature, 2 ft/sec crosswind (90° to conductor), 0.91 coefficient of emissivity, 0.95 coefficient of absorbtivity, 30° northern latitude, sea level elevation, 90° azimuth of line (East-West), clear atmosphere, and a date and time of noon on July 1 (resulting in 96.0 W/ft² of solar and sky radiated heat). Actual ampacity will differ based on local conditions. For specific ampacities, please contact your General Cable sales representative.

⁽³⁾ Based on a conductor temperature of 90°C at 60 Hz and the following conditions: 25°C ambient temperature, 2 ft/sec crosswind (90° to conductor), 0.91 coefficient of emissivity, 0.95 coefficient of absorbtivity, 30° northern latitude, sea level elevation, 90° azimuth of line (East-West), clear atmosphere, and a date and time of noon on July 1 (resulting in 96.0 W/ft² of solar and sky radiated heat). Actual ampacity will differ based on local conditions. For specific ampacities, please contact your General Cable sales representative.

⁽⁴⁾ Normal length and shipping tolerances apply. Reel sizes may vary.

Dimensions and weights not designated minimum or maximum are nominal values and subject to manufacturing tolerances. In this context, weight means mass.

Covered Overhead Conductor — Line Wire

Single Conductor LLDPE or XLPE Covered Line Wire

COVERED ACSR ALUMINUM CONDUCTOR, STEEL-REINFORCED, CONCENTRIC-LAY-STRANDED												
	SIZE AWG OR	NO. OF	COVER THKN.	. APPROX.	APPROX. WEIGHT LB/1000 F		/1000 FT	RATED STRENGTH	AMPACITY		PACKAGING (4)	
						TOTAL			AIVIFACITY		LENGTH	
CODE WORD (1)	kcmil	WIRES	INCHES	CABLE O.D.	AL	LLDPE	XLPE	LBS	PE (2)	XLPE (3)	TYPE & SIZE	FT
Walnut	6	6/1	0.030	0.252	24.5	46.5	46.5	1130	105	120	NR 27.18	8800
											COIL	2700
Butternut	4	6/1	0.030	0.303	38.9	70.7	70.7	1765	140	160	NR 30.18	6200
											COIL	2200
Hickory	4	7/1	0.030	0.309	38.9	81.1	81.1	2240	140	160	NR 30.18	6000
											COIL	2000
Pignut	2	6/1	0.045	0.396	61.9	116	116	2710	180	210	NR 32.24	6700
											COIL	1200
Almond	1/0	6/1	0.060	0.505	98.5	183	183	4160	235	275	NR 32.24	4000
											COIL	1000
Pecan	2/0	6/1	0.060	0.553	124.1	225	225	5035	270	315	NR 36.24	3400
Filbert	3/0	6/1	0.060	0.606	156.5	279	279	6290	335	385	NR 40.24	3900
Buckeye	4/0	6/1	0.060	0.665	197.4	345	345	7935	370	440	NR 40.24	3000
Hackberry	266.8	18/1	0.060	0.710	250	344	344	6540	435	505	NR 40.24	2600
Redbud	266.8	18/1	0.080	0.750	250	363	363	6540	435	505	NR 40.24	2600
Mockernut	336.4	18/1	0.060	0.783	315	427	427	8245	505	585	NR 40.24	2500
Aspen	336.4	18/1	0.080	0.823	315	447	447	8245	500	580	NR 40.24	2400



⁽¹⁾ Code words shown are for LLDPE products; add the suffix "XLP" to the code word for cross-linked products. Example: Walnut/XLP.

(2) Based on a conductor temperature of 75°C at 60 Hz and the following conditions: 25°C ambient temperature, 2 ft/sec crosswind (90° to conductor), 0.91 coefficient of emissivity, 0.95 coefficient of absorbtivity, 30° northern latitude, sea level elevation, 90° azimuth of line (East-West), clear atmosphere, and a date and time of noon on July 1 (resulting in 96.0

W/ft² of solar and sky radiated heat). Actual ampacity will differ based on local conditions. For specific ampacities, please contact your General Cable sales representative.

(3) Based on a conductor temperature of 90°C at 60 Hz and the following conditions: 25°C ambient temperature, 2 ft/sec crosswind (90° to conductor), 0.91 coefficient of emissivity, 0.95 coefficient of absorbtivity, 30° northern latitude, sea level elevation, 90° azimuth of line (East-West), clear atmosphere, and a date and time of noon on July 1 (resulting in 96.0). W/ft² of solar and sky radiated heat). Actual ampacity will differ based on local conditions. For specific ampacities, please contact your General Cable sales representative.

⁽⁴⁾ Normal length and shipping tolerances apply. Reel sizes may vary.

Dimensions and weights not designated minimum or maximum are nominal values and subject to manufacturing tolerances. In this context, weight means mass.