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Service Cable Products

Overhead and Underground Secondary Distribution Cables and Polyethylene Covered Line Wire

NOTICE

Nexans has endeavored to ensure the accuracy of the data in this publication, however we cannot be liable for the consequences of errors or omissions. All data is subject to change without notice. The installer and / or user assumes all liability for the consequences of the installation and / or use of any of our products in contravention of any applicable law, regulation or code.

Introduction

Nexans is one of the largest wire and cable manufacturers in the world. In North America Nexans Energy has been designing and manufacturing electrical wire and cable since 1911. We are recognized by major utilities, contractors, and distributors throughout the world as a quality supplier of a wide range of reliable and innovative products used in power, industrial, construction and communication applications.

With more than nine decades of experience as a leader in the industrial and power cable markets, Nexans is contracted by utilities and heavy industry world wide to provide turnkey solutions for the bulk transmission of power – from generating station through the transmission and distribution systems to commercial, residential and industrial areas.

To ensure that our customers are provided with products and services that fully meet their requirements and expectations, our quality system for the design and development of electrical power cables is registered to ISO Standard 9001.

Similarly, the quality programs at our manufacturing locations for the products listed in this catalog are registered to ISO Standard 9001.

Presented here are physical and electrical data for Overhead and Underground Secondary Distribution Cables and Polyethylene Covered Line Wire. We have listed the most common and readily available constructions, however, we are equipped to manufacture a variety of cables not described here. In addition, we would be pleased to recommend the most suitable product for any special application.

The determination of the correct cable size and type, and the selection of methods of installation suitable for the type and location of particular circuits, should be made in accordance with local regulations. Any questions in this respect should be directed primarily to the local Electrical Inspection Authority.

We are pleased to note that all the cables in this catalog are LEAD FREE. This indicates that the Nexans cable components have less than 300 ppm of lead, which is well below the 1000 ppm level indicated in RoHS (restriction of hazardous substances) regulations and below the level requiring labeling by California proposition #65.

Overhead Secondary Distribution Cables

Applications

Nexans Multiplexed Overhead Secondary Distribution Cable assemblies consist of one or more insulated conductors and a bare neutral conductor. They are intended for use either as a service drop cable between a power pole and the service entrance, or as a secondary distribution cable between poles. Their use should be limited to circuits not exceeding 600 volts phase-to-phase and a 90°C normal conductor temperature.

Construction

Phase Conductor:
The phase conductors are aluminum alloy 1350-H19 hard-drawn, compressed concentric-lay-stranded.

Neutral Conductor:
Cable assemblies are available with the following neutral conductors:

- Aluminum conductors, coated-steel reinforced (ACSR), concentric-lay-stranded
- Aluminum alloy 1350-H19 hard-drawn, concentric-lay-stranded
- Aluminum alloy 6201-T81, concentric-lay-stranded

Insulation Material:
The standard insulation on the phase conductor(s) is black low-density crosslinked polyethylene (XLPE).

Alternatively, black linear low-density polyethylene (LLDPE) insulation with a 75°C temperature rating is available upon request.

The XLPE insulation meets the requirements of ANSI/ICEA S-76-474-2004 (Standard for Neutral-Supported Power Cable Assemblies with Weather-Resistant Extruded Insulation Rated 600 Volts).

The LLDPE insulation meets the requirements of ASTM Standard D1248-05 (Standard Specification for Polyethylene Plastics Molding and Extrusion Materials).

Assembly:
One or more insulated phase conductors are twisted around the bare neutral conductor with a right-hand lay length of 25 to 60 times the diameter of one phase conductor.

Markings:
The insulation will bear the following surface markings:

- Nexans
- Year and Plant of Manufacture
- Phase Conductor Size
- XLPE or LLDPE
- 600V
- Phase identification on quadruplex cables only

Standard

Nexans Overhead Secondary Distribution Cable is manufactured and tested in accordance with ANSI/ICEA S-76-474-2004 (Standard for Neutral-Supported Power Cable Assemblies with Weather-Resistant Extruded Insulation Rated 600 Volts).

Duplex Service Drop 600 V

ACSR Neutral

Code Word	Phase Conductor		Neutral	Complete Cable		DC Resistance at 20°C (ohm/kft)	Inductive Reactance (ohm/kft)	Ampacity* 90°C
	Size (# of wires)	Nominal Insulation Thickness (inch)	Size (Stranding)	Overall Diameter (inch)	Cable Weight (lb/kft)			
Shepherd/XLP	6 (7)	0.045	6 (6/1)	0.47	77	0.661	0.029	95
Retriever/XLP	6 (7)	0.060	6 (6/1)	0.50	85	0.661	0.031	95
Terrier/XLP	4 (7)	0.045	4 (6/1)	0.57	116	0.416	0.028	125
Yorkshire/XLP	4 (7)	0.060	4 (6/1)	0.60	125	0.416	0.029	125
Chow/XLP	2 (7)	0.045	2 (6/1)	0.70	177	0.261	0.027	165
Labrador/XLP	1 (19)	0.060	1 (6/1)	0.81	231	0.207	0.027	180
Bloodhound/XLP	1/0 (7)	0.060	1/0 (6/1)	0.89	285	0.164	0.028	220
Bull/XLP	1/0 (19)	0.060	1/0 (6/1)	0.89	285	0.164	0.026	220

Aluminum 1350 Neutral

Code Word	Phase Conductor		Neutral	Complete Cable		DC Resistance at 20°C (ohm/kft)	Inductive Reactance (ohm/kft)	Ampacity* 90°C
	Size (# of wires)	Nominal Insulation Thickness (inch)	Size (# of wires)	Overall Diameter (inch)	Cable Weight (lb/kft)			
Collie/XLP	6 (7)	0.045	6 (7)	0.46	66	0.661	0.028	95
Cocker/XLP	6 (7)	0.060	6 (7)	0.49	74	0.661	0.030	95
Spaniel/XLP	4 (7)	0.045	4 (7)	0.55	98	0.416	0.027	125
Cairn/XLP	4 (7)	0.060	4 (7)	0.58	107	0.416	0.029	125
Doberman/XLP	2 (7)	0.045	2 (7)	0.68	148	0.261	0.027	165
Airedale/XLP	1 (19)	0.060	1 (7)	0.78	195	0.207	0.026	180
Basset/XLP	1/0 (7)	0.060	1/0 (7)	0.86	238	0.164	0.027	220
Malemute/XLP	1/0 (19)	0.060	1/0 (7)	0.86	239	0.164	0.026	220

Aluminum 6201 Neutral

Code Word	Phase Conductor		Neutral	Complete Cable		DC Resistance at 20°C (ohm/kft)	Inductive Reactance (ohm/kft)	Ampacity* 90°C
	Size (# of wires)	Nominal Insulation Thickness (inch)	Size (# of wires)	Overall Diameter (inch)	Cable Weight (lb/kft)			
Viszla/XLP	6 (7)	0.045	6 (7)	0.47	66	0.661	0.029	95
Whippet/XLP	4 (7)	0.045	4 (7)	0.57	98	0.416	0.028	125
Schnauzer/XLP	2 (7)	0.045	2 (7)	0.70	148	0.261	0.027	165
Afghan/XLP	1/0 (7)	0.060	1/0 (7)	0.89	238	0.164	0.028	220
Heeler/XLP	1/0 (19)	0.060	1/0 (7)	0.89	239	0.164	0.026	220

For LLDPE insulation, remove "XLP" from code word.
Overall Diameter is the approximate circumscribed diameter of the assembly.
*Based on 40°C ambient temperature, crosswind at 2 ft/s, no sun. For ampacity values at 75°C, contact our Sales Office.
Aluminum 6201 neutral sizes are diameter equivalent to ACSR.

Triplex Service Drop 600 V

ACSR Neutral

Code Word	Phase Conductor		Neutral	Complete Cable		DC Resistance at 20°C (ohm/kft)	Inductive Reactance (ohm/kft)	Ampacity* 90°C
	Size (# of wires)	Nominal Insulation Thickness (inch)	Size (Stranding)	Overall Diameter (inch)	Cable Weight (lb/kft)			
Voluta/XLP	6 (7)	0.045	6 (6/1)	0.54	119	0.661	0.033	95
Bolma/XLP	6 (7)	0.060	6 (6/1)	0.58	134	0.661	0.035	95
Periwinkle/XLP	4 (7)	0.045	4 (6/1)	0.64	175	0.416	0.031	125
Calma/XLP	4 (7)	0.060	4 (6/1)	0.69	193	0.416	0.033	125
Cockle/XLP	2 (7)	0.045	4 (6/1)	0.73	230	0.261	0.030	165
Conch/XLP	2 (7)	0.045	2 (6/1)	0.78	264	0.261	0.030	165
Janthina/XLP	1/0 (7)	0.060	2 (6/1)	0.93	370	0.164	0.030	220
Neritina/XLP	1/0 (7)	0.060	1/0 (6/1)	0.99	424	0.164	0.030	220
Cenia/XLP	1/0 (19)	0.060	1/0 (6/1)	1.00	425	0.164	0.029	220
Runcina/XLP	2/0 (7)	0.060	2/0 (6/1)	1.09	522	0.130	0.029	265
Cerapus/XLP	4/0 (19)	0.060	2/0 (6/1)	1.25	692	0.082	0.027	350
Zuzara/XLP	4/0 (19)	0.060	4/0 (6/1)	1.34	799	0.082	0.027	350

Aluminum 1350 Neutral

Code Word	Phase Conductor		Neutral	Complete Cable		DC Resistance at 20°C (ohm/kft)	Inductive Reactance (ohm/kft)	Ampacity* 90°C
	Size (# of wires)	Nominal Insulation Thickness (inch)	Size (# of wires)	Overall Diameter (inch)	Cable Weight (lb/kft)			
Patella/XLP	6 (7)	0.045	6 (7)	0.53	107	0.661	0.033	95
Albus/XLP	6 (7)	0.060	6 (7)	0.57	123	0.661	0.035	95
Oyster/XLP	4 (7)	0.045	4 (7)	0.63	157	0.416	0.031	125
Argo/XLP	4 (7)	0.060	4 (7)	0.67	174	0.416	0.033	125
Clam/XLP	2 (7)	0.045	2 (7)	0.76	234	0.261	0.030	165
Hyas/XLP	1 (19)	0.060	1 (7)	0.89	311	0.207	0.029	180
Murex/XLP	1/0 (7)	0.060	1/0 (7)	0.97	378	0.164	0.030	220
Purpura/XLP	1/0 (19)	0.060	1/0 (7)	0.97	379	0.164	0.029	220

Aluminum 6201 Neutral

Code Word	Phase Conductor		Neutral	Complete Cable		DC Resistance at 20°C (ohm/kft)	Inductive Reactance (ohm/kft)	Ampacity* 90°C
	Size (# of wires)	Nominal Insulation Thickness (inch)	Size (# of wires)	Overall Diameter (inch)	Cable Weight (lb/kft)			
Hippa/XLP	6 (7)	0.045	6 (7)	0.54	111	0.661	0.033	95
Barnacles/XLP	4 (7)	0.045	4 (7)	0.64	163	0.416	0.031	125
Shrimp/XLP	2 (7)	0.045	2 (7)	0.78	244	0.261	0.030	165
Gammarus/XLP	1/0 (7)	0.060	1/0 (7)	0.99	394	0.164	0.030	220
Leda/XLP	1/0 (19)	0.060	1/0 (7)	1.00	395	0.164	0.029	220

For LLDPE insulation, remove "XLP" from code word.
Overall Diameter is the approximate circumscribed diameter of the assembly.
*Based on 40°C ambient temperature, crosswind at 2 ft/s, no sun. For ampacity values at 75°C, contact our Sales Office.
Aluminum 6201 neutral sizes are diameter equivalent to ACSR.

Quadruplex Service Drop 600 V

ACSR Neutral

Code Word	Phase Conductor		Neutral	Complete Cable		DC Resistance at 20°C (ohm/kft)	Inductive Reactance (ohm/kft)	Ampacity* 90°C
	Size (# of wires)	Nominal Insulation Thickness (inch)	Size (Stranding)	Overall Diameter (inch)	Cable Weight (lb/kft)			
Chola/XLP	6 (7)	0.045	6 (6/1)	0.62	160	0.661	0.035	80
Hackney/XLP	4 (7)	0.045	4 (6/1)	0.73	234	0.416	0.038	115
Palomino/XLP	2 (7)	0.045	2 (6/1)	0.88	350	0.261	0.042	150
Albino/XLP	1 (19)	0.060	1 (6/1)	1.03	464	0.207	0.046	175
Standardbred/XLP	1/0 (7)	0.060	1/0 (6/1)	1.13	564	0.164	0.048	210
Costena/XLP	1/0 (19)	0.060	1/0 (6/1)	1.13	565	0.164	0.048	210
Grullo/XLP	2/0 (19)	0.060	2/0 (6/1)	1.25	693	0.130	0.050	245
Appaloosa/XLP	4/0 (19)	0.060	4/0 (6/1)	1.51	1054	0.082	0.055	325

Aluminum 1350 Neutral

Code Word	Phase Conductor		Neutral	Complete Cable		DC Resistance at 20°C (ohm/kft)	Inductive Reactance (ohm/kft)	Ampacity* 90°C
	Size (# of wires)	Nominal Insulation Thickness (inch)	Size (# of wires)	Overall Diameter (inch)	Cable Weight (lb/kft)			
Pinto/XLP	4 (7)	0.045	4 (7)	0.72	216	0.416	0.038	115
Mustang/XLP	2 (7)	0.045	2 (7)	0.87	321	0.261	0.042	150
Shire/XLP	1 (19)	0.060	1 (7)	1.02	427	0.207	0.046	175
Libyan/XLP	1/0 (7)	0.060	1/0 (7)	1.11	517	0.164	0.048	210
Criollo/XLP	1/0 (19)	0.060	1/0 (7)	1.12	519	0.164	0.048	210

Aluminum 6201 Neutral

Code Word	Phase Conductor		Neutral	Complete Cable		DC Resistance at 20°C (ohm/kft)	Inductive Reactance (ohm/kft)	Ampacity* 90°C
	Size (# of wires)	Nominal Insulation Thickness (inch)	Size (# of wires)	Overall Diameter (inch)	Cable Weight (lb/kft)			
French-Coach/XLP	6 (7)	0.045	6 (7)	0.62	152	0.661	0.035	80
Arabian/XLP	4 (7)	0.045	4 (7)	0.73	222	0.416	0.038	115
Belgian/XLP	2 (7)	0.045	2 (7)	0.88	331	0.261	0.042	150
Plow/XLP	1/0 (7)	0.060	1/0 (7)	1.13	533	0.164	0.048	210
Shetland/XLP	1/0 (19)	0.060	1/0 (7)	1.13	535	0.164	0.048	210

For LLDPE insulation, remove "XLP" from code word.
Overall Diameter is the approximate circumscribed diameter of the assembly.
*Based on 40°C ambient temperature, crosswind at 2 ft/s, no sun. For ampacity values at 75°C, contact our Sales Office.
Aluminum 6201 neutral sizes are diameter equivalent to ACSR.

Underground Secondary Distribution Cables

Applications

Nexans Underground Secondary Distribution Cables may be used for underground secondary distribution and service entrance applications at 600 volts or less. They may be either directly buried or installed in ducts, in either wet or dry locations. These cables are designed to operate at a conductor temperature not exceeding 90°C for normal operation, 130°C for emergency overloads, and 250°C under short circuit conditions.

As a result of their enhanced mechanical properties, Nexans Ruggedized Underground Secondary Distribution Cables are especially suited for applications requiring superior resistance to abrasion, scoring and crushing.

Construction

Conductor:
Solid or Class B compressed concentric-lay-stranded 1350 aluminum.

Phase Conductor Insulation Material*:
The insulation on the phase conductor(s) is black low-density crosslinked polyethylene.

Neutral Conductor Insulation Material*:
The insulation on the neutral conductor may be either:

- Black low-density crosslinked polyethylene
- Black low-density crosslinked polyethylene with three extruded yellow stripes

*Note: The ruggedized construction uses high-density crosslinked polyethylene.

Assembly:
Multiplex constructions are twisted together with a left hand lay not greater than 60 times the outside diameter of a single phase conductor.

Markings:

- Nexans
- Year and Plant of Manufacture
- Phase Conductor Size
- 600V
- Phase identification on quadruplex cables only

Standard

Manufactured and tested to ANSI/ICEA S-105-692-2004 (Standard for 600 Volt Single Layer Thermoset Insulated Utility Underground Distribution Cables) or ANSI/ICEA S-81-570-2005 (Standard for 600 Volt Rated Cables of Ruggedized Design for Direct Burial Installations as Single Conductors or Assemblies of Single Conductors).

UL listing and marking for Type USE-2 is available upon request.

Single Conductor 600 V UD Cable

CodeWord	Size (#of wires)	Conductor Diameter (inch)	Nominal Insulation Thickness (inch)	Insulation Diameter (inch)	Total Weight (lb/kft)	Impedance, ohm/kft*		
						AC Resistance		Inductive Reactance
						@ 75°C	@ 90°C	@ 60 Hz
Creighton/XLP	10 (1)	0.102	0.060	0.22	24	2.04	2.14	0.0492
Ithaca/XLP	8 (1)	0.129	0.060	0.25	32	1.28	1.35	0.0464
Cornell/XLP	8 (7)	0.141	0.060	0.26	34	1.28	1.35	0.0470
Princeton/XLP	6 (7)	0.178	0.060	0.30	47	0.807	0.847	0.0447
Mercer/XLP	4 (7)	0.225	0.060	0.35	67	0.508	0.533	0.0426
Clemson/XLP	2 (7)	0.283	0.060	0.41	97	0.319	0.335	0.0409
Kenyon/XLP	1 (19)	0.322	0.080	0.49	128	0.253	0.266	0.0411
Harvard/XLP	1/0 (19)	0.362	0.080	0.52	154	0.201	0.211	0.0402
Yale/XLP	2/0 (19)	0.406	0.080	0.57	186	0.159	0.167	0.0394
Tufts/XLP	3/0 (19)	0.456	0.080	0.62	225	0.126	0.133	0.0387
Beloit/XLP	4/0 (19)	0.512	0.080	0.68	274	0.100	0.105	0.0380
Hofstra/XLP	250 (37)	0.558	0.095	0.75	329	0.0850	0.0892	0.0382
Gonzaga/XLP	300 (37)	0.611	0.095	0.81	385	0.0710	0.0744	0.0377
Rutgers/XLP	350 (37)	0.660	0.095	0.85	439	0.0609	0.0639	0.0373
Dartmouth/XLP	400 (37)	0.706	0.095	0.90	493	0.0534	0.0560	0.0369
Brown/XLP	450 (37)	0.749	0.095	0.94	547	0.0476	0.0499	0.0366
Emory/XLP	500 (37)	0.789	0.095	0.98	601	0.0429	0.0450	0.0364
Duke/XLP	600 (61)	0.866	0.110	1.09	725	0.0360	0.0377	0.0365
Furman/XLP	700 (61)	0.935	0.110	1.16	830	0.0311	0.0325	0.0362
Sewanee/XLP	750 (61)	0.968	0.110	1.19	883	0.0291	0.0305	0.0360
Fordham/XLP	1000 (61)	1.118	0.110	1.34	1144	0.0223	0.0233	0.0354

*At random (calculated as 1.5 x cable OD) spacing between conductors
For ruggedized construction, add "AR" to code word. (eg. Harvard/XLP/AR)

Duplex 600 V UD Cable

Code Word (Black Neutral)*	Phase Conductor		Neutral Conductor		Cable		Impedance, ohm/kft		
	Size (# of wires)	Nominal Insulation Thickness (inch)	Size (# of wires)	Nominal Insulation Thickness (inch)	Overall Diameter (inch)	Weight (lb/kft)	AC Resistance		Inductive Reactance
							@ 75°C	@ 90°C	@ 60 Hz
Alcorn/XLP	8 (1)	0.060	8 (1)	0.060	0.50	63.7	1.28	1.35	0.0371
Bard/XLP	8 (7)	0.060	8 (7)	0.060	0.53	66.6	1.28	1.35	0.0377
Claflin/XLP	6 (7)	0.060	6 (7)	0.060	0.60	91.4	0.807	0.847	0.0353
	4 (7)	0.060	6 (7)	0.060	0.65	110	0.508	0.533	0.0317
Delgado/XLP	4 (7)	0.060	4 (7)	0.060	0.69	129	0.508	0.533	0.0333
Cedarcrest/XLP	2 (7)	0.060	4 (7)	0.060	0.75	157	0.319	0.335	0.0299
Everett/XLP	2 (7)	0.060	2 (7)	0.060	0.81	186	0.319	0.335	0.0316
Findlay/XLP	2/0 (19)	0.080	2/0 (19)	0.080	1.14	374	0.159	0.167	0.0301
Hanover/XLP	4/0 (19)	0.080	4/0 (19)	0.080	1.35	552	0.101	0.105	0.0287
Glenville/XLP	350 (37)	0.095	350 (37)	0.095	1.71	884	0.0612	0.0642	0.0279

*For yellow stripes on neutral, add "EYS" to black neutral code word. (eg. Claflin/XLP/EYS)
For ruggedized construction, add "AR" to code word. (eg. Claflin/XLP/AR)

Triplex 600 V UD Cable

Code Word (Black Neutral)*	Phase Conductor		Neutral Conductor		Cable		Impedance, ohm/kft		
	Size (# of wires)	Nominal Insulation Thickness (inch)	Size (# of wires)	Nominal Insulation Thickness (inch)	Overall Diameter (inch)	Weight (lb/kft)	AC Resistance @ 75°C	AC Resistance @ 90°C	Inductive Reactance @ 60 Hz
Dowling/XLP	8 (7)	0.060	8 (7)	0.060	0.57	103	1.28	1.35	0.0382
Erskine/XLP	6 (7)	0.060	6 (7)	0.060	0.65	143	0.807	0.847	0.0353
Vassar/XLP	4 (7)	0.060	4 (7)	0.060	0.75	202	0.508	0.533	0.0333
Stephens/XLP	2 (7)	0.060	4 (7)	0.060	0.83	262	0.319	0.335	0.0299
Ramapo/XLP	2 (7)	0.060	2 (7)	0.060	0.88	292	0.319	0.335	0.0316
Grossmont/XLP	1 (19)	0.080	1 (19)	0.080	1.05	387	0.253	0.266	0.0318
Brenau/XLP	1/0 (19)	0.080	2 (7)	0.060	1.05	407	0.201	0.211	0.0281
Bergen/XLP	1/0 (19)	0.080	1/0 (19)	0.080	1.13	465	0.201	0.211	0.0309
Fisk/XLP	2/0 (19)	0.080	2 (7)	0.060	1.11	472	0.159	0.167	0.0262
Converse/XLP	2/0 (19)	0.080	1 (19)	0.080	1.17	504	0.159	0.167	0.0280
Shaw/XLP	2/0 (19)	0.080	1/0 (19)	0.080	1.20	530	0.159	0.167	0.0288
Hunter/XLP	2/0 (19)	0.080	2/0 (19)	0.080	1.23	563	0.159	0.167	0.0297
Hollins/XLP	3/0 (19)	0.080	1/0 (19)	0.080	1.27	610	0.127	0.133	0.0272
Rockland/XLP	3/0 (19)	0.080	3/0 (19)	0.080	1.34	682	0.127	0.133	0.0290
Molloy/XLP	4/0 (19)	0.080	1/0 (19)	0.080	1.35	709	0.101	0.105	0.0256
Sweetbriar/XLP	4/0 (19)	0.080	2/0 (19)	0.080	1.38	741	0.101	0.105	0.0265
Monmouth/XLP	4/0 (19)	0.080	4/0 (19)	0.080	1.46	831	0.101	0.105	0.0283
Aquinas/XLP	250 (37)	0.095	2/0 (19)	0.080	1.49	850	0.0852	0.0893	0.0259
Pratt/XLP	250 (37)	0.095	3/0 (19)	0.080	1.53	890	0.0852	0.0893	0.0267
Yeshiva/XLP	250 (37)	0.095	250 (37)	0.095	1.62	910	0.0852	0.0893	0.0289
Gloucester/XLP	350 (37)	0.095	3/0 (19)	0.080	1.68	1111	0.0612	0.0642	0.0245
Wesleyan/XLP	350 (37)	0.095	4/0 (19)	0.080	1.72	1160	0.0612	0.0642	0.0254
Newark/XLP	350 (37)	0.095	350 (37)	0.095	1.85	1328	0.0612	0.0642	0.0279
Holyoke/XLP	500 (37)	0.095	300 (37)	0.095	2.00	1596	0.0434	0.0454	0.0249
Rider/XLP	500 (37)	0.095	350 (37)	0.095	2.03	1652	0.0434	0.0454	0.0255
Westchester/XLP	500 (37)	0.095	500 (37)	0.095	2.12	1815	0.0434	0.0454	0.0271
Villanova/XLP	750 (61)	0.110	350 (37)	0.095	2.33	2219	0.0297	0.0311	0.0233
Voorhees/XLP	750 (61)	0.110	450 (37)	0.095	2.40	2329	0.0297	0.0311	0.0243
Fairfield/XLP	750 (61)	0.110	500 (37)	0.095	2.42	2383	0.0297	0.0311	0.0247
Seton Hall/XLP	750 (61)	0.110	750 (61)	0.110	2.58	2669	0.0297	0.0311	0.0268

*For yellow stripes on neutral, add "EYS" to black neutral code word. (eg. Brenau/XLP/EYS)
For ruggedized construction, add "AR" to code word. (eg. Brenau/XLP/AR)

Quadruplex 600 V UD Cable

Code Word (Black Neutral)*	Phase Conductor		Neutral Conductor		Cable		Impedance, ohm/kft		
	Size (# of wires)	Nominal Insulation Thickness (inch)	Size (# of wires)	Nominal Insulation Thickness (inch)	Overall Diameter (inch)	Weight (lb/kft)	AC Resistance @ 75°C	AC Resistance @ 90°C	Inductive Reactance @ 60 Hz
Tulsa/XLP	4 (7)	0.060	4 (7)	0.060	0.84	242	0.508	0.533	0.0339
Miami/XLP	2 (7)	0.060	6 (7)	0.060	0.92	318	0.319	0.335	0.0284
Dyke/XLP	2 (7)	0.060	4 (7)	0.060	0.94	332	0.319	0.335	0.0299
Wittenberg/XLP	2 (7)	0.060	2 (7)	0.060	0.98	356	0.319	0.335	0.0316
Notre Dame/XLP	1/0 (19)	0.080	2 (7)	0.060	1.19	528	0.201	0.211	0.0281
Purdue/XLP	1/0 (19)	0.080	1/0 (19)	0.080	1.27	566	0.201	0.211	0.0309
Syracus/XLP	2/0 (19)	0.080	1 (19)	0.080	1.33	643	0.159	0.167	0.0284
Lafayette/XLP	2/0 (19)	0.080	2/0 (19)	0.080	1.38	690	0.159	0.167	0.0301
Swarthmore/XLP	3/0 (19)	0.080	1/0 (19)	0.080	1.44	784	0.127	0.133	0.0276
Davidson/XLP	3/0 (19)	0.080	3/0 (19)	0.080	1.50	843	0.127	0.133	0.0294
McPherson/XLP	4/0 (19)	0.080	2 (7)	0.060	1.47	895	0.101	0.105	0.0236
Doane/XLP	4/0 (19)	0.080	1/0 (19)	0.080	1.54	932	0.101	0.105	0.0260
Wake Forest/XLP	4/0 (19)	0.080	2/0 (19)	0.080	1.57	959	0.101	0.105	0.0268
Earlham/XLP	4/0 (19)	0.080	4/0 (19)	0.080	1.63	1034	0.101	0.105	0.0287
Rust/XLP	250 (37)	0.095	3/0 (19)	0.080	1.73	1155	0.0852	0.0893	0.0267
Palomar/XLP	250 (37)	0.095	250 (37)	0.095	1.82	1234	0.0852	0.0893	0.0289
Slippery Rock/XLP	350 (37)	0.095	4/0 (19)	0.080	1.95	1529	0.0612	0.0642	0.0254
Niagara/XLP	350 (37)	0.095	350 (37)	0.095	2.06	1662	0.0612	0.0642	0.0279
Page/XLP	500 (37)	0.095	250 (37)	0.095	2.23	2053	0.0434	0.0454	0.0242
Morehouse/XLP	500 (37)	0.095	300 (37)	0.095	2.27	2101	0.0434	0.0454	0.0249
Wofford/XLP	500 (37)	0.095	350 (37)	0.095	2.30	2149	0.0434	0.0454	0.0255
Marshall/XLP	500 (37)	0.095	500 (37)	0.095	2.37	2292	0.0434	0.0454	0.0271
Westminster/XLP	750 (61)	0.110	350 (37)	0.095	2.67	3002	0.0297	0.0311	0.0232
Windham/XLP	750 (61)	0.110	500 (37)	0.095	2.75	3145	0.0297	0.0311	0.0246
Tabor/XLP	750 (61)	0.110	750 (61)	0.110	2.88	3385	0.0297	0.0311	0.0267

*For yellow stripes on neutral, add "EYS" to black neutral code word. (eg. Earlham/XLP/EYS)
For ruggedized construction, add "AR" to code word. (eg. Earlham/XLP/AR)

Polyethylene Covered Line Wire

Applications

Nexans Single Conductor Polyethylene-Covered Line Wire is rated for a 75°C normal conductor temperature, and is intended for use in overhead distribution circuits operating at primary or secondary voltages. The covering provides circuit protection against momentary contact with other conductors or trees. Because the covering carries no voltage rating, the conductors must be installed on insulators adequate for the intended service voltage. The user should consider the dielectric compatibility of the covering, insulator and conductor/insulator tie.

Construction

Conductor:
Conductors are available in the following constructions:

- Aluminum alloy 1350-H19 hard-drawn, concentric-lay-stranded
- Aluminum conductor, coated-steel reinforced (ACSR), concentric-lay-stranded
- Medium hard-drawn copper, solid or concentric-lay-stranded

Covering Material:
The standard covering on the conductor is black linear low-density polyethylene (LLDPE). Alternatively, a covering of black low-density crosslinked polyethylene (XLPE) with a 90°C temperature rating is available upon request.

The LLDPE and XLPE coverings meet the requirements of ANSI/ ICEA S-70-547-2007 (Standard for Weather-Resistant Polyethylene Covered Conductors).

Markings:
The covering will bear the following surface markings:

- Nexans
- Year and Plant of Manufacture
- Conductor Size
- LLDPE or XLPE

Standard

Nexans Overhead Covered Line Wire is manufactured and tested in accordance with ANSI/ICEA S-70-547-2007 (Standard for Weather-Resistant Polyethylene Covered Conductors).

Polyethylene Covered Line Wire

Aluminum 1350 Conductor

Code Word	Size (# of wires)	Nominal Covering Thickness (inch)	Cable			DC Resistance at 20°C (ohm/kft)	Inductive Reactance (ohm/kft)	Ampacity* 75°C
			Overall Diameter (inch)	Weight (lb/kft)	Breaking Strength (lbf)			
Plum	6 (7)	0.030	0.24	35	507	0.661	0.118	95
Apricot	4 (7)	0.030	0.29	50	793	0.415	0.113	130
Peach	2 (7)	0.045	0.38	85	1215	0.261	0.107	170
Nectarine	1 (7)	0.045	0.42	105	1476	0.207	0.105	195
Quince	1/0 (7)	0.060	0.49	135	1791	0.164	0.102	225
Orange	2/0 (7)	0.060	0.54	165	2259	0.130	0.0994	260
Fig	3/0 (7)	0.060	0.59	200	2736	0.103	0.0968	300
Olive	4/0 (7)	0.060	0.64	245	3447	0.0820	0.0941	345
Pomegranate	4/0 (19)	0.060	0.65	245	3618	0.0820	0.0944	345
Mulberry	266.8 (19)	0.060	0.71	305	4473	0.0650	0.0915	410
Basswood	300 (19)	0.060	0.75	335	4932	0.0578	0.0901	430
Annona	336.4 (19)	0.060	0.79	375	5535	0.0516	0.0888	460
Molles	397.5 (19)	0.080	0.89	460	6399	0.0436	0.0869	510
Huckleberry	477 (37)	0.080	0.95	540	7821	0.0364	0.0845	585

ACSR Conductor

Code Word	Size (Stranding)	Nominal Covering Thickness (inch)	Cable			DC Resistance at 20°C (ohm/kft)	Inductive Reactance (ohm/kft)	Ampacity* 75°C
			Overall Diameter (inch)	Weight (lb/kft)	Breaking Strength (lbf)			
Walnut	6 (6/1)	0.030	0.26	45	1131	0.658	0.143	95
Butternut	4 (6/1)	0.030	0.31	70	1767	0.413	0.136	120
Pignut	2 (6/1)	0.045	0.41	115	2708	0.260	0.127	165
Chestnut	1 (6/1)	0.045	0.44	140	3373	0.206	0.122	190
Almond	1/0 (6/1)	0.060	0.52	185	4161	0.163	0.116	215
Pecan	2/0 (6/1)	0.060	0.57	225	5035	0.130	0.113	235
Cottonwood	2/0 (6/1)	0.080	0.61	240	5035	0.130	0.113	240
Filbert	3/0 (6/1)	0.060	0.62	275	6289	0.103	0.109	270
Buckeye	4/0 (6/1)	0.060	0.68	340	7933	0.0816	0.105	320
Gumwood	4/0 (6/1)	0.080	0.72	360	7933	0.0816	0.105	325
Hackberry	266.8 (18/1)	0.060	0.73	345	6555	0.0651	0.090	400
Redbud	266.8 (18/1)	0.080	0.77	365	6555	0.0651	0.090	400
Mockernut	336.4 (18/1)	0.060	0.81	425	8265	0.0516	0.087	460
Aspen**	336.4 (18/1)	0.080	0.85	445	8265	0.0516	0.087	465

** This Code Word also refers to another product. To avoid confusion, we recommend specifying the size as well.

Copper Conductor

Size (# of wires)	Nominal Covering Thickness (inch)	Cable			DC Resistance at 20°C (ohm/kft)	Inductive Reactance (ohm/kft)	Ampacity* 75°C
		Overall Diameter (inch)	Weight (lb/kft)	Breaking Strength (lbf)			
10 (1)	0.030	0.16	35	390	1.03	0.131	55
8 (7)	0.030	0.21	60	646	0.663	0.125	85
6 (7)	0.030	0.24	90	1017	0.417	0.119	110
4 (7)	0.030	0.29	140	1596	0.262	0.114	155
2 (7)	0.045	0.38	225	2489	0.165	0.109	215
1 (7)	0.045	0.42	280	3202	0.131	0.106	245
1/0 (7)	0.060	0.49	360	4009	0.104	0.103	280
2/0 (7)	0.060	0.54	450	5026	0.0822	0.100	325
3/0 (19)	0.060	0.59	560	6308	0.0652	0.0968	380
4/0 (19)	0.060	0.65	700	7904	0.0517	0.0942	440
250 (19)	0.060	0.70	820	9870	0.0438	0.0922	490
350 (19)	0.060	0.80	1140	13015	0.0313	0.0883	610
500 (37)	0.080	0.97	1635	18525	0.0219	0.0839	770

For XLPE covering, add "XLP" to code word. (eg. Pomegranate/XLP)
* Ampacity based on conductor at 75°C, ambient temperature at 30°C, wind speed at 2 ft/s, with sun. For ampacity values at 90°C, contact our Sales Office.
Inductive Reactance values are shown for 1.0 ft equivalent spacing.
To correct Inductive Reactance in ohm/kft for other equivalent spacings (S) expressed in feet:
XL = Value at 1.0 ft + 0.023ln(S)
For a frequency other than 60 Hz, multiply result by **f/60**