

35kV AL 100% TRXLPE Two-Thirds Neutral Primary UD HI-DRI-PLUS® Renewable (Solar or Wind)

Moisture Blocked Aluminum Conductors. TRXLPE Insulation. Two-Thirds Copper Concentric Neutral. XLPE Jacket

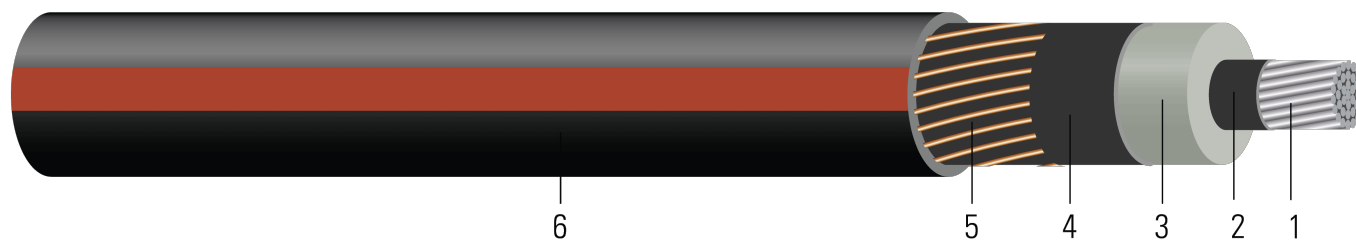


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

- Conductor:** Moisture Blocked 1350 H16/H26 Aluminum, Class B Compressed or Compressed Unilay Stranded
- Strand Shield:** Semi-conducting Crosslinked Polyethylene
- Insulation:** Tree Retardant Crosslinked Polyethylene (TRXLPE)
- Insulation Shield:** Strippable Semi-conducting Crosslinked Polyethylene
- Concentric Neutral:** Annealed Copper Wires Helically Applied Two-Thirds Concentric Neutral
- Overall Jacket & Water Block:** HI-DRI-PLUS® Water Swellable Powder Black Crosslinked Polyethylene (XLPE) with Red Extruded Stripes

APPLICATIONS AND FEATURES:

- Predominately used for renewable projects with wind or solar applications.
- Suitable for use in wet or dry locations, direct burial, underground ducts, and exposure to direct sunlight.
- To be used at conductor temperature not to exceed 105°C normal operation.
- UL listed MV-105
- Under short circuit conditions, the maximum allowable shield temperature for crosslinked jackets is 350°C as opposed to only 200°C for a PE type of jacket. The higher temperature allows for more fault current capacity, thus reducing the amount of copper required in the neutral design.
- Not recommended for use above 90°C in wind farm applications

SPECIFICATIONS:

- UL 1072 Medium-Voltage Power Cables
- ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5 - 46kV
- AEIC CS-8 Specification for extruded dielectric shielded power cables rated for 5 through 46KV
- Made in America: Compliant with both Buy American and Buy America Act (BAA) requirements per 49 U.S.C. § 5323(j) and the Federal Transit Administration Buy America requirements per 49 C.F.R. part 661

SAMPLE PRINT LEGEND:

SOUTHWIRE(R) (UL) HI-DRI-PLUS(R) AWG XX AL 35000 VOLTS TR XLPE INSULATION XX MILS (NESC) MV105 -- SOUTHWIRE (MM/YYYY) NON-CONDUCTING JACKET (PLANT) SEQUENTIAL FOOTAGE MARKS



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Table 1 – Weights and Measurements

Stock Number	Cond. Size	Diameter Over Conductor	Diameter Over Insulation	Insul. Thickness	Diameter Over Insulation Shield	Concentric Neutral	Neutral DC Resistance 25°C	Jacket Thickness	Approx. OD	Approx. Weight	Min Bending Radius	Max Pull Tension
	AWG/ Kcmil	inch	inch	mil	inch	No. x AWG	Ω /1000ft	mil	inch	lb /1000ft	inch	lb
626288	1/0 (19)	0.351	1.072	345	1.182	8x14	0.328	50	1.410	808	9.8	633
TBA	1/0 (19)	0.361	1.089	345	1.199	11x14	0.239	50	1.427	913	9.9	633
TBA	2/0 (19)	0.395	1.123	345	1.233	14x14	0.187	50	1.461	1005	10.2	798
TBA	3/0 (19)	0.443	1.171	345	1.281	17x14	0.154	50	1.509	1115	10.5	1006
TBA	4/0 (19)	0.498	1.226	345	1.336	21x14	0.125	50	1.564	1252	10.9	1269
TBA	250 (37)	0.558	1.294	345	1.404	16x12	0.103	75	1.716	1479	12.0	1500
TBA	350 (37)	0.661	1.397	345	1.507	22x12	0.075	75	1.819	1783	12.7	2100
662828	350 (37)	0.661	1.391	345	1.501	14x10	0.074	75	1.858	1755	13.0	2100
TBA	500 (37)	0.789	1.525	345	1.665	32x12	0.051	75	1.977	2280	13.8	3000

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

* Pulling tension based on pulling eye directly connected to conductor



Table 2 – Electrical and Engineering Data

Cond. Size	DC Resistance @ 25°C	AC Resistance @ 90°C	Capacitive Reactance @ 60Hz	Inductive Reactance @ 60Hz	Charging Current	Dielectric Loss	Zero Sequence Impedance*	Positive Sequence Impedance*	Short Circuit Current @ 30 Cycle	Allowable Ampacity in Duct 90°C	Allowable Ampacity Directly Buried 90°C
AWG/Kcmil	Ω/1000ft	Ω/1000ft	MΩ/1000ft	Ω/1000ft	A/1000ft	W/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp	Amp
1/0 (19)	0.167	0.211	0.076	0.054	0.153	3.09	0.265 + j0.748	0.211 + j0.053	4138	160	195
1/0 (19)	0.167	0.211	0.074	0.053	0.155	3.13	0.265 + j0.747	0.211 + j0.054	5690	160	195
2/0 (19)	0.133	0.167	0.071	0.052	0.164	3.31	0.221 + j0.744	0.167 + j0.051	7242	185	220
3/0 (19)	0.105	0.132	0.066	0.050	0.176	3.55	0.186 + j0.740	0.132 + j0.050	8794	210	250
4/0 (19)	0.084	0.105	0.061	0.048	0.190	3.83	0.159 + j0.735	0.105 + j0.048	10863	235	280
250 (37)	0.071	0.090	0.057	0.048	0.204	4.12	0.144 + j0.729	0.09 + j0.048	13150		302
350 (37)	0.050	0.065	0.050	0.045	0.229	4.62	0.119 + j0.722	0.065 + j0.045	18081	315	370
350 (37)	0.050	0.065	0.050	0.045	0.229	4.62	0.119 + j0.721	0.065 + j0.046	18290	315	370
500 (37)	0.035	0.046	0.044	0.043	0.260	5.25	0.100 + j0.714	0.046 + j0.043	26300	380	435

*Ampacities for Direct Buried are based on ICEA P-117-734-2016 Single-Conductor Solid Dielectric 15-35kV. Single Circuit Flat Direct Buried Figure 3

*Ampacities for Duct are based on ICEA P-117-734-2016 for Single-Conductor Solid Dielectric 15-35kV. Single Circuit Trefoil Conduit Figure 7.

*Sequence Impedance values are based on Rho Earth Resistivity: 100 Ohm-Meter/1000ft.

Table 3 – Weights and Measurements (Metric)

Stock Number	Cond. Size	Diameter Over Conductor	Diameter Over Insulation	Insul. Thickness	Diameter Over Insulation Shield	Concentric Neutral	Neutral DC Resistance 25°C	Jacket Thickness	Approx. OD	Approx. Weight	Min Bending Radius	Max Pull Tension
	AWG/Kcmil	mm	mm	mm	mm	No. x AWG	Ω/km	mm	mm	kg/km	mm	newton
626288	1/0 (19)	8.92	27.23	8.76	30.02	8x14	1.08	1.27	35.81	1202	248.92	2817
TBA	1/0 (19)	9.17	27.66	8.76	30.45	11x14	0.78	1.27	36.25	1359	251.46	2817
TBA	2/0 (19)	10.03	28.52	8.76	31.32	14x14	0.61	1.27	37.11	1496	259.08	3551
TBA	3/0 (19)	11.25	29.74	8.76	32.54	17x14	0.51	1.27	38.33	1659	266.70	4477
TBA	4/0 (19)	12.65	31.14	8.76	33.93	21x14	0.41	1.27	39.73	1863	276.86	5647
TBA	250 (37)	14.17	32.87	8.76	35.66	16x12	0.34	1.91	43.59	2201	304.80	6675
TBA	350 (37)	16.79	35.48	8.76	38.28	22x12	0.25	1.91	46.20	2653	322.58	9345
662828	350 (37)	16.79	35.33	8.76	38.13	14x10	0.24	1.91	47.19	2612	330.20	9345
TBA	500 (37)	20.04	38.73	8.76	42.29	32x12	0.17	1.91	50.22	3393	350.52	13350



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All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

* Pulling tension based on pulling eye directly connected to conductor

Table 4 – Electrical and Engineering Data (Metric)

Cond. Size	DC Resistance @ 25°C	AC Resistance @ 90°C	Capacitive Reactance @ 60Hz	Inductive Reactance @ 60Hz	Charging Current	Dielectric Loss	Zero Sequence Impedance*	Positive Sequence Impedance*	Short Circuit Current @ 30 Cycle	Allowable Ampacity in Duct 90°C	Allowable Ampacity Directly Buried 90°C
AWG/Kcmil	Ω/km	Ω/km	MΩ*km	Ω/km	A/km	W/km	Ω/1000ft	Ω/1000ft	Amp	Amp	Amp
1/0 (19)	0.5479	0.69	0.0232	0.1772	0.502	10.1378	0.265 + j0.748	0.211 + j0.053	4138	160	195
1/0 (19)	0.5479	0.69	0.0226	0.1739	0.509	10.2690	0.265 + j0.747	0.211 + j0.054	5690	160	195
2/0 (19)	0.4364	0.55	0.0216	0.1706	0.538	10.8596	0.221 + j0.744	0.167 + j0.051	7242	185	220
3/0 (19)	0.3445	0.43	0.0201	0.1640	0.577	11.6470	0.186 + j0.740	0.132 + j0.050	8794	210	250
4/0 (19)	0.2756	0.34	0.0186	0.1575	0.623	12.5656	0.159 + j0.735	0.105 + j0.048	10863	235	280
250 (37)	0.2329	0.30	0.0174	0.1575	0.669	13.5171	0.144 + j0.729	0.09 + j0.048	13150		302
350 (37)	0.1640	0.21	0.0152	0.1476	0.751	15.1575	0.119 + j0.722	0.065 + j0.045	18081	315	370
350 (37)	0.1640	0.21	0.0152	0.1476	0.751	15.1575	0.119 + j0.721	0.065 + j0.046	18290	315	370
500 (37)	0.1148	0.15	0.0134	0.1411	0.853	17.2244	0.100 + j0.714	0.046 + j0.043	26300	380	435

*Ampacities for Direct Buried are based on ICEA P-117-734-2016 Single-Conductor Solid Dielectric 15-35kV. Single Circuit Flat Direct Buried Figure 3

*Ampacities for Duct are based on ICEA P-117-734-2016 for Single-Conductor Solid Dielectric 15-35kV. Single Circuit Trefoil Conduit Figure 7.

*Sequence Impedance values are based on Rho Earth Resistivity: 100 Ohm-Meter/1000ft.

