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

Moisture Blocked Aluminum Conductors. TRXLP Insulation. One-Half Copper Concentric Neutrals. XLPE Jacket

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Moisture Blocked 1350 H16/H26 Aluminum, Class B Compressed or Compressed Unilay Stranded
2. **Strand Shield:** Semi-conducting Crosslinked Polyethylene
3. **Insulation:** Tree Retardant Crosslinked Polyethylene (TRXLP)
4. **Insulation Shield:** Strippable Semi-conducting Crosslinked Polyethylene
5. **Concentric Neutral:** Annealed Copper Wires Helically Applied One-Half Concentric Neutral
6. **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 105ºC normal operation.
- UL listed MV-105
- Under short circuit conditions, the maximum allowable shield temperature for crosslinked jackets is 350ºC as opposed to only 200ºC 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 90ºC 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

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

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
TBA	1/0 (1)	0.325	1.052	345	1.152	6x14	0.438	50	1.380	750	16.6	634
626290	1/0 (19)	0.352	1.135	345	1.255	10x16	0.438	50	1.387	747	16.9	634
TBA	2/0 (19)	0.395	1.122	345	1.222	7x14	0.376	50	1.450	847	17.4	799
TBA	3/0 (19)	0.443	1.170	345	1.270	9x14	0.292	50	1.498	937	18.0	1007
626306	4/0 (19)	0.498	1.28	345	1.4	12x14	0.239	50	1.558	1041	18.6	1270
TBA	250 (37)	0.558	1.294	345	1.394	13x14	0.202	50	1.622	1163	19.5	1500
TBA	350 (37)	0.661	1.397	345	1.497	18x14	0.146	80	1.785	1463	21.4	2100
TBA	500 (37)	0.789	1.525	345	1.625	25x14	0.104	80	1.945	1837	23.3	3000

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item

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 (1)	0.168	0.211	0.073	0.052	0.278	1.687	0.523+j0.238	0.212+j0.052	2251.8	160	195
1/0 (19)	0.168	0.211	0.069	0.051	0.291	1.765	0.522+j0.237	0.212+j0.051	2251.8	160	195
2/0 (19)	0.133	0.167	0.065	0.050	0.311	1.886	0.456+j0.197	0.168+j0.049	2627.1	185	220
3/0 (19)	0.105	0.132	0.061	0.048	0.333	2.020	0.381+j0.144	0.133+j0.048	3377.6	210	250
4/0 (19)	0.0836	0.105	0.056	0.046	0.358	2.173	0.320+j0.112	0.106+j0.046	4128.2	235	285
250 (37)	0.0707	0.089	0.052	0.044	0.390	2.363	0.278+j0.090	0.091+j0.044	4878.8		
350 (37)	0.0505	0.064	0.046	0.043	0.436	2.643	0.207+j0.062	0.066+j0.043	6755.3	315	370
500 (37)	0.0354	0.045	0.041	0.041	0.493	2.989	0.151+j0.046	0.048+j0.040	9540.3	380	450

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
TBA	1/0 (1)	8.25	26.72	8.76	29.26	6x14	1.44	1.27	35.05	1116	421.64	2821
626290	1/0 (19)	8.94	28.83	8.76	31.88	10x16	1.44	1.27	35.23	1112	429.26	2821
TBA	2/0 (19)	10.03	28.50	8.76	31.04	7x14	1.23	1.27	36.83	1260	441.96	3556
TBA	3/0 (19)	11.25	29.72	8.76	32.26	9x14	0.96	1.27	38.05	1394	457.20	4481
626306	4/0 (19)	12.65	32.51	8.76	35.56	12x14	0.78	1.27	39.57	1549	472.44	5652
TBA	250 (37)	14.17	32.87	8.76	35.41	13x14	0.66	1.27	41.20	1731	495.30	6675
TBA	350 (37)	16.79	35.48	8.76	38.02	18x14	0.48	2.03	45.34	2177	543.56	9345
TBA	500 (37)	20.04	38.73	8.76	41.28	25x14	0.34	2.03	49.40	2734	591.82	13350

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item

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 (1)	0.5512	0.69	0.0223	0.1706	0.912	5.5348	0.523+j0.238	0.212+j0.052	2251.8	160	195
1/0 (19)	0.5512	0.69	0.0210	0.1673	0.955	5.7907	0.522+j0.237	0.212+j0.051	2251.8	160	195
2/0 (19)	0.4364	0.55	0.0198	0.1640	1.020	6.1877	0.456+j0.197	0.168+j0.049	2627.1	185	220
3/0 (19)	0.3445	0.43	0.0186	0.1575	1.093	6.6273	0.381+j0.144	0.133+j0.048	3377.6	210	250
4/0 (19)	0.2743	0.34	0.0171	0.1509	1.175	7.1293	0.320+j0.112	0.106+j0.046	4128.2	235	285
250 (37)	0.2320	0.29	0.0158	0.1444	1.280	7.7526	0.278+j0.090	0.091+j0.044	4878.8		
350 (37)	0.1657	0.21	0.0140	0.1411	1.430	8.6713	0.207+j0.062	0.066+j0.043	6755.3	315	370
500 (37)	0.1161	0.15	0.0125	0.1345	1.617	9.8064	0.151+j0.046	0.048+j0.040	9540.3	380	450