

MV CABLE

35kV MV-90 **AL** TR-XLPE 100% INS LLDPE
35kV MV-90 **AL** TR-XLPE 133% INS LLDPE
35kV MV-105 **AL** TR-XLPE 100% INS XLPE
35kV MV-105 **AL** TR-XLPE 133% INS XLPE



VOLTAGE, LLC (UL) E509128 500MCM 35kV MV-90 AL TR-XLPE 16X12 AWG 345 M

Medium Voltage Cable

35kV MV-90 AL TR-XLPE 100% INS LLDPE

✂ Construction

- Conductor: 1/0 AWG - 1500kcmil Class B compressed concentric lay stranded 1350-H19 aluminum
- Conductor Shield: Extruded semi-conducting thermoset polymeric stress control layer
- Insulation: Extruded tree-retardant cross-linked polyethylene
- Insulation Shield: Extruded semi-conducting thermoset layer, clean and free stripping from insulation
- Concentric Neutral: Helically applied, annealed, solid bare copper wires
- Jacket: Black with 3 red stripes at 120°, non-conducting, sunlight resistant, linear low-density polyethylene jacket extruded to fill spaces between neutral wires

🏆 Standards

- UL1072 Medium Voltage Cable
- ANSI/ICEA S-94-649
- ANSI/ICEA T-27-581
- ANSI/ICEA T-34-664
- ANSI/ICEA P-45-482
- AEIC CS-8
- RUS U-1



⚙ Applications

- Primarily underground distribution
- Wet or dry locations, direct burial, duct, and where exposed to sunlight
- 35kV or less
- Conductor temperatures not to exceed 90°C for normal operation
- Insulation level: 100% Insulation level

☰ Options

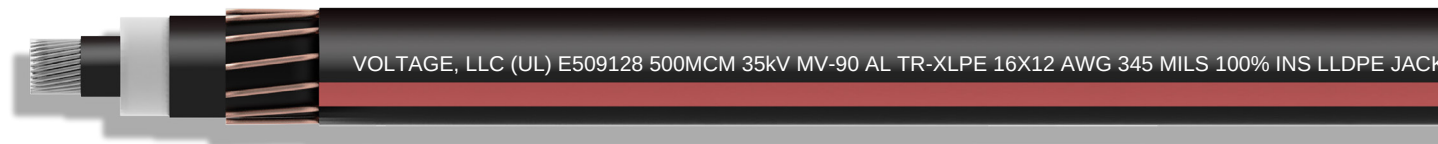
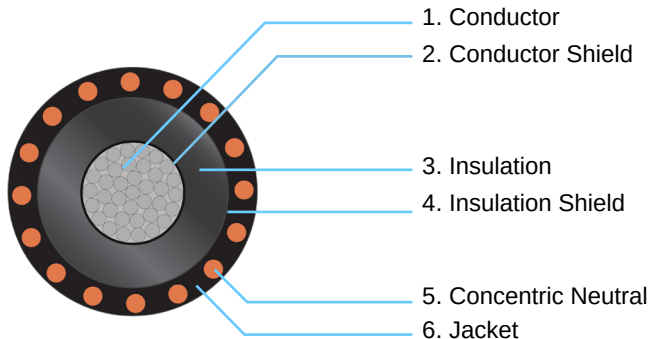
- EPR Insulation
- XLPE jacket
- TYPE MV-105
- Copper tape screen
- Different concentric neutral levels
- Other voltages available
- Other insulation levels

📦 Packaging

- Material cut to length
- Shipped on steel reels
- Triplex or parallel packaging available

✂ Sample Print

- Interval imprints with production date, time, cable type, sequential length in 2-foot increments



35kV MV-90 AL TR-XLPE 100% INS LLDPE - Trefoil

Weights & Measurements															Electrical and Engineering Data - Trefoil - Single Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 90°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Ω/kft
1/12 Neutral																											
1/0	19	6	16	0.354	20	345	50	55	1.396	97	50	775	16.8	633	1,000	0.1680	0.2110	0.042	0.2153±j0.0575	0.2693±j0.7593	1,010	2,250	2,700	160	195	185	
2/0	19	6	16	0.398	20	345	50	55	1.440	122	50	833	17.3	799	1,000	0.1330	0.1670	0.045	0.1704±j0.0558	0.2244±j0.7552	1,010	2,250	2,700	182	225	210	
4/0	19	6	16	0.504	20	345	50	55	1.546	195	50	980	18.6	1,269	1,000	0.0836	0.1051	0.052	0.1072±j0.0527	0.1611±j0.7465	1,010	2,250	2,700	234	297	271	
250	37	6	16	0.547	20	345	50	55	1.589	230	50	1,053	19.1	1,500	1,000	0.0707	0.0890	0.055	0.0908±j0.0516	0.1447±j0.7433	1,010	2,250	2,700	256	328	297	
350	37	7	16	0.650	20	345	50	80	1.742	322	58	1,283	20.9	2,100	1,000	0.0505	0.0638	0.061	0.0650±j0.0501	0.1189±j0.7352	1,170	2,630	3,150	309	404	357	
500	37	7	14	0.773	20	345	50	80	1.891	460	92	1,578	22.7	3,000	1,000	0.0354	0.0447	0.069	0.0456±j0.0484	0.0994±j0.7268	1,880	4,200	5,030	377	506	435	
750	61	10	14	0.949	27	345	65	80	2.111	690	132	2,072	25.3	4,500	1,000	0.0236	0.0301	0.081	0.0307±j0.0465	0.0843±j0.7177	2,680	6,000	7,180	469	651	542	
1000	61	13	14	1.095	27	345	65	80	2.257	920	172	2,460	27.1	6,000	1,000	0.0177	0.0229	0.090	0.0233±j0.0451	0.0768±j0.7113	3,480	7,800	9,340	546	774	631	
1250	91	16	14	1.228	30	345	65	80	2.396	1,150	211	2,850	28.8	7,500	1,000	0.0141	0.0185	0.099	0.0189±j0.0440	0.0721±j0.7059	4,290	9,590	11,490	616	889	711	
1500	91	19	14	1.343	39	345	65	80	2.529	1,380	251	3,244	30.4	9,000	1,000	0.0118	0.0164	0.107	0.0162±j0.0434	0.0692±j0.7014	5,090	11,390	13,640	675	990	778	
1/6 Neutral																											
1/0	19	6	16	0.354	20	345	50	55	1.396	97	50	775	16.8	633	1,000	0.1680	0.2110	0.042	0.2153±j0.0575	0.2693±j0.7593	1,010	2,250	2,700	160	195	185	
2/0	19	6	16	0.398	20	345	50	55	1.440	122	50	833	17.3	799	1,000	0.1330	0.1670	0.045	0.1704±j0.0558	0.2244±j0.7552	1,010	2,250	2,700	182	225	210	
4/0	19	9	16	0.504	20	345	50	55	1.546	195	74	1,003	18.6	1,269	1,000	0.0836	0.1051	0.052	0.1072±j0.0527	0.1611±j0.7465	1,510	3,380	4,050	234	297	271	
250	37	10	16	0.547	20	345	50	55	1.589	230	83	1,083	19.1	1,500	1,000	0.0707	0.0890	0.055	0.0908±j0.0516	0.1447±j0.7433	1,680	3,760	4,500	256	328	297	
350	37	9	14	0.650	20	345	50	80	1.768	322	119	1,312	21.2	2,100	1,000	0.0505	0.0638	0.061	0.0650±j0.0504	0.1189±j0.7345	2,410	5,400	6,460	309	406	358	
500	37	8	12	0.773	20	345	50	80	1.925	460	167	1,688	23.1	3,000	1,000	0.0354	0.0447	0.069	0.0456±j0.0487	0.0994±j0.7260	3,390	7,590	9,090	378	509	436	
750	61	19	14	0.949	27	345	65	80	2.111	690	251	2,180	25.3	4,500	1,000	0.0236	0.0301	0.081	0.0307±j0.0465	0.0843±j0.7177	5,090	11,390	13,640	469	651	542	
1000	61	16	12	1.095	27	345	65	80	2.291	920	334	2,657	27.5	6,000	1,000	0.0177	0.0229	0.090	0.0233±j0.0454	0.0768±j0.7106	6,780	15,180	18,170	548	778	632	
1250	91	20	12	1.228	30	345	65	80	2.430	1,150	418	3,090	29.2	7,500	1,000	0.0141	0.0185	0.099	0.0189±j0.0443	0.0721±j0.7053	8,480	18,970	22,720	617	893	712	
1500	91	24	12	1.343	39	345	65	80	2.563	1,380	502	3,526	30.8	9,000	1,000	0.0118	0.0164	0.107	0.0162±j0.0436	0.0692±j0.7008	10,170	22,760	27,260	677	994	780	

35kV MV-90 AL TR-XLPE 100% INS LLDPE - Trefoil

Weights & Measurements															Electrical and Engineering Data - Trefoil - Single Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 90°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Ω/kft
1/3 Neutral																											
1/0	19	6	14	0.354	20	345	50	55	1.422	97	79	828	17.1	633	1,000	0.1680	0.2110	0.042	0.2153±j0.0578	0.2693±j0.7584	1,610	3,600	4,310	161	196	185	
2/0	19	11	16	0.398	20	345	50	55	1.440	122	91	870	17.3	799	1,000	0.1330	0.1670	0.045	0.1704±j0.0558	0.2244±j0.7552	1,850	4,130	4,950	182	225	210	
4/0	19	11	14	0.504	20	345	50	55	1.572	195	145	1,095	18.9	1,269	1,000	0.0836	0.1051	0.052	0.1072±j0.0530	0.1611±j0.7457	2,950	6,600	7,900	235	298	272	
250	37	13	14	0.547	20	345	50	55	1.615	230	172	1,192	19.4	1,500	1,000	0.0707	0.0890	0.055	0.0908±j0.0519	0.1447±j0.7426	3,480	7,800	9,340	257	330	298	
350	37	18	14	0.650	20	345	50	80	1.768	322	238	1,477	21.2	2,100	1,000	0.0505	0.0638	0.061	0.0650±j0.0504	0.1189±j0.7345	4,820	10,790	12,930	309	406	358	
500	37	16	12	0.773	20	345	50	80	1.925	460	334	1,838	23.1	3,000	1,000	0.0354	0.0447	0.069	0.0456±j0.0487	0.0994±j0.7260	6,780	15,180	18,170	378	509	436	
750	61	15	10	0.949	27	345	65	80	2.187	690	500	2,514	26.2	4,500	1,000	0.0236	0.0301	0.081	0.0307±j0.0472	0.0843±j0.7160	10,150	22,710	27,200	472	658	545	
1000	61	20	10	1.095	27	345	65	80	2.333	920	667	3,022	28.0	6,000	1,000	0.0177	0.0229	0.090	0.0233±j0.0457	0.0768±j0.7098	13,530	30,280	36,260	550	782	634	
1250	91	20	9	1.228	30	345	65	80	2.496	1,150	842	3,584	30.0	7,500	1,000	0.0141	0.0185	0.099	0.0189±j0.0448	0.0721±j0.7040	17,080	38,220	45,780	621	901	715	
1500	91	24	9	1.343	39	345	65	80	2.629	1,380	1,011	4,103	31.6	9,000	1,000	0.0118	0.0164	0.107	0.0161±j0.0441	0.0692±j0.6996	20,500	45,870	54,930	680	1,003	783	
1/2 Neutral																											
1/0	19	8	14	0.354	20	345	50	55	1.422	97	106	851	17.1	633	1,000	0.1680	0.2110	0.042	0.2153±j0.0578	0.2693±j0.7584	2,140	4,800	5,750	161	196	185	
2/0	19	10	14	0.398	20	345	50	55	1.466	122	132	933	17.6	799	1,000	0.1330	0.1670	0.045	0.1704±j0.0562	0.2244±j0.7544	2,680	6,000	7,180	182	226	211	
4/0	19	10	12	0.504	20	345	50	55	1.606	195	209	1,187	19.3	1,269	1,000	0.0836	0.1051	0.052	0.1072±j0.0534	0.1611±j0.7447	4,240	9,490	11,360	236	300	272	
250	37	12	12	0.547	20	345	50	55	1.649	230	251	1,299	19.8	1,500	1,000	0.0707	0.0890	0.055	0.0908±j0.0523	0.1447±j0.7416	5,090	11,380	13,630	258	332	298	
350	37	11	10	0.650	20	345	50	80	1.844	322	367	1,685	22.1	2,100	1,000	0.0505	0.0638	0.061	0.0650±j0.0512	0.1189±j0.7326	7,440	16,650	19,940	311	411	359	
500	37	15	10	0.773	20	345	50	80	1.967	460	500	2,043	23.6	3,000	1,000	0.0354	0.0447	0.069	0.0456±j0.0491	0.0994±j0.7250	10,150	22,710	27,200	379	512	437	
750	61	18	9	0.949	27	345	65	80	2.211	690	758	2,783	26.5	4,500	1,000	0.0236	0.0301	0.081	0.0307±j0.0474	0.0843±j0.7155	15,370	34,400	41,200	473	660	545	
1000	61	24	9	1.095	27	345	65	80	2.357	920	1,011	3,371	28.3	6,000	1,000	0.0177	0.0229	0.090	0.0233±j0.0459	0.0768±j0.7093	20,500	45,870	54,930	551	785	635	
1250	91	24	8	1.228	30	345	65	80	2.526	1,150	1,268	4,014	30.3	7,500	1,000	0.0141	0.0185	0.099	0.0189±j0.0450	0.0721±j0.7035	25,730	57,570	68,940	622	905	716	
1500	91	28	8	1.343	39	345	65	80	2.659	1,380	1,480	4,573	31.9	9,000	1,000	0.0118	0.0164	0.107	0.0161±j0.0443	0.0692±j0.6991	30,010	67,160	80,430	682	1,007	785	

35kV MV-90 AL TR-XLPE 100% INS LLDPE - Trefoil

Weights & Measurements															Electrical and Engineering Data - Trefoil - Single Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 90°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Amps
2/3 Neutral																											
1/0	19	11	14	0.354	20	345	50	55	1.422	97	145	857	17.1	633	1,000	0.1680	0.2110	0.042	0.2153±j0.0578	0.2693±j0.7584	2,950	6,600	7,900	161	196	185	
2/0	19	21	16	0.398	20	345	50	55	1.440	122	174	944	17.3	799	1,000	0.1330	0.1670	0.045	0.1704±j0.0558	0.2244±j0.7552	3,520	7,890	9,450	182	225	210	
4/0	19	14	12	0.504	20	345	50	55	1.606	195	293	1,244	19.3	1,269	1,000	0.0836	0.1051	0.052	0.1072±j0.0534	0.1611±j0.7447	5,930	13,280	15,900	236	300	272	
250	37	16	12	0.547	20	345	50	55	1.649	230	334	1,374	19.8	1,500	1,000	0.0707	0.0890	0.055	0.0908±j0.0523	0.1447±j0.7416	6,780	15,180	18,170	258	332	298	
350	37	22	12	0.650	20	345	50	80	1.802	322	460	1,716	21.6	2,100	1,000	0.0505	0.0638	0.061	0.0650±j0.0507	0.1189±j0.7337	9,330	20,870	24,990	310	408	358	
500	37	20	10	0.773	20	345	50	80	1.967	460	667	2,193	23.6	3,000	1,000	0.0354	0.0447	0.069	0.0456±j0.0491	0.0994±j0.7250	13,530	30,280	36,260	379	512	437	
750	61	24	9	0.949	27	345	65	80	2.211	690	1,011	3,009	26.5	4,500	1,000	0.0236	0.0301	0.081	0.0307±j0.0474	0.0843±j0.7155	20,500	45,870	54,930	473	660	545	
1000	61	25	8	1.095	27	345	65	80	2.387	920	1,321	3,694	28.7	6,000	1,000	0.0177	0.0229	0.090	0.0233±j0.0461	0.0768±j0.7088	26,800	59,970	71,810	552	788	636	
Full Neutral																											
1/0	19	10	12	0.354	20	345	50	55	1.456	97	209	976	17.5	633	1,000	0.1680	0.2110	0.042	0.2153±j0.0582	0.2693±j0.7573	4,240	9,490	11,360	161	198	186	
2/0	19	13	12	0.398	20	345	50	55	1.500	122	272	1,091	18.0	799	1,000	0.1330	0.1670	0.045	0.1704±j0.0566	0.2244±j0.7533	5,510	12,330	14,770	183	227	211	
4/0	19	13	10	0.504	20	345	50	55	1.648	195	434	1,436	19.8	1,269	1,000	0.0836	0.1051	0.052	0.1072±j0.0539	0.1611±j0.7436	8,800	19,680	23,570	236	302	273	
250	37	15	10	0.547	20	345	50	80	1.741	230	500	1,629	20.9	1,500	1,000	0.0707	0.0890	0.055	0.0908±j0.0534	0.1447±j0.7392	10,150	22,710	27,200	259	335	299	
350	37	21	10	0.650	20	345	50	80	1.844	322	701	1,985	22.1	2,100	1,000	0.0505	0.0638	0.061	0.0650±j0.0512	0.1189±j0.7326	14,210	31,790	38,080	311	411	359	
500	37	24	9	0.773	20	345	50	80	1.991	460	1,011	2,535	23.9	3,000	1,000	0.0354	0.0447	0.069	0.0456±j0.0494	0.0994±j0.7244	20,500	45,870	54,930	380	514	438	
750	61	28	8	0.949	27	345	65	80	2.241	690	1,480	3,472	26.9	4,500	1,000	0.0236	0.0301	0.081	0.0307±j0.0477	0.0843±j0.7149	30,010	67,160	80,430	474	663	546	

- All dimensions and weights are nominal and subject to normal manufacturing tolerances.
- Ampacities: In Duct: Buried in duct, earth RHO 100, 25°C ambient, 100% load factor, 39.4" burial depth, and neutral wires bonded at a single point. Free Air: 40°C ambient, 100% load factor and neutral wires bonded at a single point. Direct Burial: Ambient temperature 25°C and 39.4" burial depth, earth RHO 100, and neutral wires bonded at a single point.
- Impedance: Calculations are based on trefoil formation / earth loop / conductor temperature of 90°C.
- Jacket thickness is measured from the outermost point of the concentric neutral wire to the outermost point of the jacket.
- Other designs available upon request.
- The above parameters are for reference only, based on the technical requirements.
- Shield Short-Circuit Current for 0.267 at 250°C and 0.267 at 350°C for reference only. Contact Voltage for capacity ratings.

35kV MV-90 AL TR-XLPE 100% INS LLDPE - Flat

Weights & Measurements															Electrical and Engineering Data - Flat - Single Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 90°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		AWG MCM	No. Wires	Size	In.	Mils				In.	lbs./kft					In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Amps
1/12 Neutral																											
1/0	19	6	16	0.354	20	345	50	55	1.396	97	50	775	16.8	633	1,000	0.1680	0.2150	0.042	0.2153±j0.0486	0.2693±j0.7486	1,010	2,250	2,700	159	200	183	
2/0	19	6	16	0.398	20	345	50	55	1.440	122	50	833	17.3	799	1,000	0.1330	0.1700	0.045	0.1704±j0.0470	0.2244±j0.7446	1,010	2,250	2,700	180	230	208	
4/0	19	6	16	0.504	20	345	50	55	1.546	195	50	980	18.6	1,269	1,000	0.0836	0.1070	0.052	0.1072±j0.0438	0.1611±j0.7359	1,010	2,250	2,700	232	305	268	
250	37	6	16	0.547	20	345	50	55	1.589	230	50	1,053	19.1	1,500	1,000	0.0707	0.0910	0.055	0.0908±j0.0428	0.1447±j0.7327	1,010	2,250	2,700	254	337	293	
350	37	7	16	0.650	20	345	50	80	1.742	322	58	1,283	20.9	2,100	1,000	0.0505	0.0650	0.061	0.0650±j0.0412	0.1189±j0.7246	1,170	2,630	3,150	305	415	352	
500	37	7	14	0.773	20	345	50	80	1.891	460	92	1,578	22.7	3,000	1,000	0.0354	0.0460	0.069	0.0456±j0.0395	0.0994±j0.7162	1,880	4,200	5,030	373	521	429	
750	61	10	14	0.949	27	345	65	80	2.111	690	132	2,072	25.3	4,500	1,000	0.0236	0.0310	0.081	0.0306±j0.0377	0.0843±j0.7070	2,680	6,000	7,180	464	670	534	
1000	61	13	14	1.095	27	345	65	80	2.257	920	172	2,460	27.1	6,000	1,000	0.0177	0.0230	0.090	0.0232±j0.0362	0.0768±j0.7007	3,480	7,800	9,340	540	798	621	
1250	91	16	14	1.228	30	345	65	80	2.396	1,150	211	2,850	28.8	7,500	1,000	0.0141	0.0190	0.099	0.0187±j0.0352	0.0721±j0.6953	4,290	9,590	11,490	609	917	699	
1500	91	19	14	1.343	39	345	65	80	2.529	1,380	251	3,244	30.4	9,000	1,000	0.0118	0.0160	0.107	0.0160±j0.0345	0.0692±j0.6908	5,090	11,390	13,640	667	1,021	766	
1/6 Neutral																											
1/0	19	6	16	0.354	20	345	50	55	1.396	97	50	775	16.8	633	1,000	0.1680	0.2150	0.042	0.2153±j0.0486	0.2693±j0.7486	1,010	2,250	2,700	159	200	183	
2/0	19	6	16	0.398	20	345	50	55	1.440	122	50	833	17.3	799	1,000	0.1330	0.1700	0.045	0.1704±j0.0470	0.2244±j0.7446	1,010	2,250	2,700	180	230	208	
4/0	19	9	16	0.504	20	345	50	55	1.546	195	74	1,003	18.6	1,269	1,000	0.0836	0.1070	0.052	0.1072±j0.0438	0.1611±j0.7359	1,510	3,380	4,050	232	305	268	
250	37	10	16	0.547	20	345	50	55	1.589	230	83	1,083	19.1	1,500	1,000	0.0707	0.0910	0.055	0.0908±j0.0428	0.1447±j0.7327	1,680	3,760	4,500	254	337	293	
350	37	9	14	0.650	20	345	50	80	1.768	322	119	1,312	21.2	2,100	1,000	0.0505	0.0650	0.061	0.0650±j0.0415	0.1189±j0.7239	2,410	5,400	6,460	306	417	353	
500	37	8	12	0.773	20	345	50	80	1.925	460	167	1,688	23.1	3,000	1,000	0.0354	0.0460	0.069	0.0456±j0.0399	0.0994±j0.7154	3,390	7,590	9,090	374	524	430	
750	61	19	14	0.949	27	345	65	80	2.111	690	251	2,180	25.3	4,500	1,000	0.0236	0.0310	0.081	0.0306±j0.0377	0.0843±j0.7070	5,090	11,390	13,640	464	670	534	
1000	61	16	12	1.095	27	345	65	80	2.291	920	334	2,657	27.5	6,000	1,000	0.0177	0.0230	0.090	0.0232±j0.0365	0.0768±j0.7000	6,780	15,180	18,170	541	802	622	
1250	91	20	12	1.228	30	345	65	80	2.430	1,150	418	3,090	29.2	7,500	1,000	0.0141	0.0190	0.099	0.0187±j0.0354	0.0721±j0.6947	8,480	18,970	22,720	610	921	701	
1500	91	24	12	1.343	39	345	65	80	2.563	1,380	502	3,526	30.8	9,000	1,000	0.0118	0.0160	0.107	0.0160±j0.0348	0.0692±j0.6902	10,170	22,760	27,260	669	1,026	767	

35kV MV-90 AL TR-XLPE 100% INS LLDPE - Flat

Weights & Measurements															Electrical and Engineering Data - Flat - Single Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 90°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		AWG MCM	No. Wires	Size	In.	Mils				In.	lbs./kft					In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Ω/kft
1/3 Neutral																											
1/0	19	6	14	0.354	20	345	50	55	1.422	97	79	828	17.1	633	1,000	0.1680	0.2150	0.042	0.2153±j0.0490	0.2693±j0.7478	1,610	3,600	4,310	159	201	183	
2/0	19	11	16	0.398	20	345	50	55	1.440	122	91	870	17.3	799	1,000	0.1330	0.1700	0.045	0.1704±j0.0470	0.2244±j0.7446	1,850	4,130	4,950	180	230	208	
4/0	19	11	14	0.504	20	345	50	55	1.572	195	145	1,095	18.9	1,269	1,000	0.0836	0.1070	0.052	0.1071±j0.0441	0.1611±j0.7351	2,950	6,600	7,900	233	307	268	
250	37	13	14	0.547	20	345	50	55	1.615	230	172	1,192	19.4	1,500	1,000	0.0707	0.0910	0.055	0.0908±j0.0431	0.1447±j0.7320	3,480	7,800	9,340	255	339	294	
350	37	18	14	0.650	20	345	50	80	1.768	322	238	1,477	21.2	2,100	1,000	0.0505	0.0650	0.061	0.0650±j0.0415	0.1189±j0.7239	4,820	10,790	12,930	306	417	353	
500	37	16	12	0.773	20	345	50	80	1.925	460	334	1,838	23.1	3,000	1,000	0.0354	0.0460	0.069	0.0456±j0.0399	0.0994±j0.7154	6,780	15,180	18,170	374	524	430	
750	61	15	10	0.949	27	345	65	80	2.187	690	500	2,514	26.2	4,500	1,000	0.0236	0.0310	0.081	0.0306±j0.0384	0.0843±j0.7054	10,150	22,710	27,200	467	678	536	
1000	61	20	10	1.095	27	345	65	80	2.333	920	667	3,022	28.0	6,000	1,000	0.0177	0.0230	0.090	0.0232±j0.0369	0.0768±j0.6992	13,530	30,280	36,260	543	806	624	
1250	91	20	9	1.228	30	345	65	80	2.496	1,150	842	3,584	30.0	7,500	1,000	0.0141	0.0190	0.099	0.0187±j0.0360	0.0721±j0.6934	17,080	38,220	45,780	613	929	703	
1500	91	24	9	1.343	39	345	65	80	2.629	1,380	1,011	4,103	31.6	9,000	1,000	0.0118	0.0160	0.107	0.0159±j0.0353	0.0692±j0.6890	20,500	45,870	54,930	672	1,035	770	
1/2 Neutral																											
1/0	19	8	14	0.354	20	345	50	55	1.422	97	106	851	17.1	633	1,000	0.1680	0.2150	0.042	0.2153±j0.0490	0.2693±j0.7478	2,140	4,800	5,750	159	201	183	
2/0	19	10	14	0.398	20	345	50	55	1.466	122	132	933	17.6	799	1,000	0.1330	0.1700	0.045	0.1704±j0.0473	0.2244±j0.7438	2,680	6,000	7,180	181	232	208	
4/0	19	10	12	0.504	20	345	50	55	1.606	195	209	1,187	19.3	1,269	1,000	0.0836	0.1070	0.052	0.1071±j0.0446	0.1611±j0.7341	4,240	9,490	11,360	233	308	269	
250	37	12	12	0.547	20	345	50	55	1.649	230	251	1,299	19.8	1,500	1,000	0.0707	0.0910	0.055	0.0908±j0.0435	0.1447±j0.7310	5,090	11,380	13,630	255	341	294	
350	37	11	10	0.650	20	345	50	80	1.844	322	367	1,685	22.1	2,100	1,000	0.0505	0.0650	0.061	0.0650±j0.0423	0.1189±j0.7220	7,440	16,650	19,940	308	422	354	
500	37	15	10	0.773	20	345	50	80	1.967	460	500	2,043	23.6	3,000	1,000	0.0354	0.0460	0.069	0.0456±j0.0403	0.0994±j0.7144	10,150	22,710	27,200	375	527	431	
750	61	18	9	0.949	27	345	65	80	2.211	690	758	2,783	26.5	4,500	1,000	0.0236	0.0310	0.081	0.0306±j0.0386	0.0843±j0.7049	15,370	34,400	41,200	468	680	537	
1000	61	24	9	1.095	27	345	65	80	2.357	920	1,011	3,371	28.3	6,000	1,000	0.0177	0.0230	0.090	0.0232±j0.0371	0.0768±j0.6987	20,500	45,870	54,930	544	809	625	
1250	91	24	8	1.228	30	345	65	80	2.526	1,150	1,268	4,014	30.3	7,500	1,000	0.0141	0.0190	0.099	0.0187±j0.0362	0.0721±j0.6929	25,730	57,570	68,940	614	933	705	
1500	91	28	8	1.343	39	345	65	80	2.659	1,380	1,480	4,573	31.9	9,000	1,000	0.0118	0.0160	0.107	0.0159±j0.0355	0.0692±j0.6885	30,010	67,160	80,430	673	1,039	772	

35kV MV-90 AL TR-XLPE 100% INS LLDPE - Flat

Weights & Measurements															Electrical and Engineering Data - Flat - Single Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness			O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities				
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu				Total	DC@ 20°C				AC@ 90°C	1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils			In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft	Ω/kft	Amps	
2/3 Neutral																											
1/0	19	11	14	0.354	20	345	50	55	1.422	97	145	857	17.1	633	1,000	0.1680	0.2150	0.042	0.2153±j0.0490	0.2693±j0.7478	2,950	6,600	7,900	159	201	183	
2/0	19	21	16	0.398	20	345	50	55	1.440	122	174	944	17.3	799	1,000	0.1330	0.1700	0.045	0.1704±j0.0470	0.2244±j0.7446	3,520	7,890	9,450	180	230	208	
4/0	19	14	12	0.504	20	345	50	55	1.606	195	293	1,244	19.3	1,269	1,000	0.0836	0.1070	0.052	0.1071±j0.0446	0.1611±j0.7341	5,930	13,280	15,900	233	308	269	
250	37	16	12	0.547	20	345	50	55	1.649	230	334	1,374	19.8	1,500	1,000	0.0707	0.0910	0.055	0.0908±j0.0435	0.1447±j0.7310	6,780	15,180	18,170	255	341	294	
350	37	22	12	0.650	20	345	50	80	1.802	322	460	1,716	21.6	2,100	1,000	0.0505	0.0650	0.061	0.0650±j0.0419	0.1189±j0.7230	9,330	20,870	24,990	307	419	353	
500	37	20	10	0.773	20	345	50	80	1.967	460	667	2,193	23.6	3,000	1,000	0.0354	0.0460	0.069	0.0456±j0.0403	0.0994±j0.7144	13,530	30,280	36,260	375	527	431	
750	61	24	9	0.949	27	345	65	80	2.211	690	1,011	3,009	26.5	4,500	1,000	0.0236	0.0310	0.081	0.0306±j0.0386	0.0843±j0.7049	20,500	45,870	54,930	468	680	537	
1000	61	25	8	1.095	27	345	65	80	2.387	920	1,321	3,694	28.7	6,000	1,000	0.0177	0.0230	0.090	0.0232±j0.0373	0.0768±j0.6981	26,800	59,970	71,810	545	812	626	
Full Neutral																											
1/0	19	10	12	0.354	20	345	50	55	1.456	97	209	976	17.5	633	1,000	0.1680	0.2150	0.042	0.2153±j0.0494	0.2693±j0.7467	4,240	9,490	11,360	160	203	184	
2/0	19	13	12	0.398	20	345	50	55	1.500	122	272	1,091	18.0	799	1,000	0.1330	0.1700	0.045	0.1704±j0.0478	0.2244±j0.7427	5,510	12,330	14,770	181	233	209	
4/0	19	13	10	0.504	20	345	50	55	1.648	195	434	1,436	19.8	1,269	1,000	0.0836	0.1070	0.052	0.1071±j0.0450	0.1611±j0.7330	8,800	19,680	23,570	234	311	270	
250	37	15	10	0.547	20	345	50	80	1.741	230	500	1,629	20.9	1,500	1,000	0.0707	0.0910	0.055	0.0700±j0.0445	0.1447±j0.7285	10,150	22,710	27,200	257	344	295	
350	37	21	10	0.650	20	345	50	80	1.844	322	701	1,985	22.1	2,100	1,000	0.0505	0.0650	0.061	0.0650±j0.0423	0.1189±j0.7220	14,210	31,790	38,080	308	422	354	
500	37	24	9	0.773	20	345	50	80	1.991	460	1,011	2,535	23.9	3,000	1,000	0.0354	0.0460	0.069	0.0456±j0.0405	0.0994±j0.7138	20,500	45,870	54,930	375	529	432	
750	61	28	8	0.949	27	345	65	80	2.241	690	1,480	3,472	26.9	4,500	1,000	0.0236	0.0310	0.081	0.0306±j0.0388	0.0843±j0.7043	30,010	67,160	80,430	468	683	538	

- All dimensions and weights are nominal and subject to normal manufacturing tolerances.
- Ampacities: In Duct: Buried in duct, earth RHO 100, 25°C ambient, 100% load factor, 39.4" burial depth, and neutral wires bonded at a single point. Free Air: 40°C ambient, 100% load factor and neutral wires bonded at a single point. Direct Burial: Ambient temperature 25°C and 39.4" burial depth, earth RHO 100, and neutral wires bonded at a single point.
- Impedance: Calculations are based on flat formation / earth loop / conductor temperature of 90°C.
- Jacket thickness is measured from the outermost point of the concentric neutral wire to the outermost point of the jacket.
- Other designs available upon request.
- The above parameters are for reference only, based on the technical requirements.
- Shield Short-Circuit Current for 0.267 at 250°C and 0.267 at 350°C for reference only. Contact Voltage for capacity ratings.

35kV MV-90 AL TR-XLPE 100% INS LLDPE - Trefoil

Weights & Measurements															Electrical and Engineering Data - Trefoil - Both Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 90°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Ω/kft
1/12 Neutral																											
1/0	19	6	16	0.354	20	345	50	55	1.396	97	50	775	16.8	633	1,000	0.1680	0.2110	0.042	0.2159±j0.0532	1.0559±j0.0417	1,010	2,250	2,700	160	195	185	
2/0	19	6	16	0.398	20	345	50	55	1.440	122	50	833	17.3	799	1,000	0.1330	0.1670	0.045	0.1710±j0.0512	1.0110±j0.0399	1,010	2,250	2,700	182	224	210	
4/0	19	6	16	0.504	20	345	50	55	1.546	195	50	980	18.6	1,269	1,000	0.0836	0.1051	0.052	0.1078±j0.0474	0.9478±j0.0363	1,010	2,250	2,700	234	297	271	
250	37	6	16	0.547	20	345	50	55	1.589	230	50	1,053	19.1	1,500	1,000	0.0707	0.0890	0.055	0.0914±j0.0461	0.9314±j0.0352	1,010	2,250	2,700	256	328	297	
350	37	7	16	0.650	20	345	50	80	1.742	322	58	1,283	20.9	2,100	1,000	0.0505	0.0638	0.061	0.0659±j0.0443	0.7856±j0.0321	1,170	2,630	3,150	308	403	356	
500	37	7	14	0.773	20	345	50	80	1.891	460	92	1,578	22.7	3,000	1,000	0.0354	0.0447	0.069	0.0469±j0.0425	0.4988±j0.0304	1,880	4,200	5,030	374	504	432	
750	61	10	14	0.949	27	345	65	80	2.111	690	132	2,072	25.3	4,500	1,000	0.0236	0.0301	0.081	0.0325±j0.0399	0.3480±j0.0266	2,680	6,000	7,180	462	643	534	
1000	61	13	14	1.095	27	345	65	80	2.257	920	172	2,460	27.1	6,000	1,000	0.0177	0.0229	0.090	0.0257±j0.0381	0.2675±j0.0241	3,480	7,800	9,340	533	759	616	
1250	91	16	14	1.228	30	345	65	80	2.396	1,150	211	2,850	28.8	7,500	1,000	0.0141	0.0185	0.099	0.0217±j0.0367	0.2172±j0.0224	4,290	9,590	11,490	593	862	685	
1500	91	19	14	1.343	39	345	65	80	2.529	1,380	251	3,244	30.4	9,000	1,000	0.0118	0.0164	0.107	0.0193±j0.0358	0.1831±j0.0213	5,090	11,390	13,640	641	950	740	
1/6 Neutral																											
1/0	19	6	16	0.354	20	345	50	55	1.396	97	50	775	16.8	633	1,000	0.1680	0.2110	0.042	0.2159±j0.0532	1.0559±j0.0417	1,010	2,250	2,700	160	195	185	
2/0	19	6	16	0.398	20	345	50	55	1.440	122	50	833	17.3	799	1,000	0.1330	0.1670	0.045	0.1710±j0.0512	1.0110±j0.0399	1,010	2,250	2,700	182	224	210	
4/0	19	9	16	0.504	20	345	50	55	1.546	195	74	1,003	18.6	1,269	1,000	0.0836	0.1051	0.052	0.1081±j0.0474	0.6676±j0.0344	1,510	3,380	4,050	234	296	271	
250	37	10	16	0.547	20	345	50	55	1.589	230	83	1,083	19.1	1,500	1,000	0.0707	0.0890	0.055	0.0918±j0.0461	0.5952±j0.0328	1,680	3,760	4,500	256	328	296	
350	37	9	14	0.650	20	345	50	80	1.768	322	119	1,312	21.2	2,100	1,000	0.0505	0.0638	0.061	0.0667±j0.0446	0.4175±j0.0310	2,410	5,400	6,460	307	403	355	
500	37	8	12	0.773	20	345	50	80	1.925	460	167	1,688	23.1	3,000	1,000	0.0354	0.0447	0.069	0.0479±j0.0428	0.2950±j0.0298	3,390	7,590	9,090	373	504	431	
750	61	19	14	0.949	27	345	65	80	2.111	690	251	2,180	25.3	4,500	1,000	0.0236	0.0301	0.081	0.0340±j0.0396	0.1977±j0.0245	5,090	11,390	13,640	456	636	528	
1000	61	16	12	1.095	27	345	65	80	2.291	920	334	2,657	27.5	6,000	1,000	0.0177	0.0229	0.090	0.0276±j0.0378	0.1481±j0.0235	6,780	15,180	18,170	522	748	603	
1250	91	20	12	1.228	30	345	65	80	2.430	1,150	418	3,090	29.2	7,500	1,000	0.0141	0.0185	0.099	0.0241±j0.0361	0.1187±j0.0218	8,480	18,970	22,720	574	843	664	
1500	91	24	12	1.343	39	345	65	80	2.563	1,380	502	3,526	30.8	9,000	1,000	0.0118	0.0164	0.107	0.0221±j0.0348	0.0993±j0.0207	10,170	22,760	27,260	614	920	710	

35kV MV-90 AL TR-XLPE 100% INS LLDPE - Trefoil

Weights & Measurements															Electrical and Engineering Data - Trefoil - Both Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 90°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		AWG MCM	No. Wires	Size	In.	Mils				In.	lbs./kft					In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Ω/kft
1/3 Neutral																											
1/0	19	6	14	0.354	20	345	50	55	1.422	97	79	828	17.1	633	1,000	0.1680	0.2110	0.042	0.2163±j0.0536	0.7440±j0.0417	1,610	3,600	4,310	160	196	185	
2/0	19	11	16	0.398	20	345	50	55	1.440	122	91	870	17.3	799	1,000	0.1330	0.1670	0.045	0.1716±j0.0511	0.6289±j0.0372	1,850	4,130	4,950	181	224	210	
4/0	19	11	14	0.504	20	345	50	55	1.572	195	145	1,095	18.9	1,269	1,000	0.0836	0.1051	0.052	0.1090±j0.0476	0.3955±j0.0336	2,950	6,600	7,900	234	297	271	
250	37	13	14	0.547	20	345	50	55	1.615	230	172	1,192	19.4	1,500	1,000	0.0707	0.0890	0.055	0.0930±j0.0463	0.3348±j0.0319	3,480	7,800	9,340	255	328	296	
350	37	18	14	0.650	20	345	50	80	1.768	322	238	1,477	21.2	2,100	1,000	0.0505	0.0638	0.061	0.0682±j0.0442	0.2413±j0.0286	4,820	10,790	12,930	305	401	353	
500	37	16	12	0.773	20	345	50	80	1.925	460	334	1,838	23.1	3,000	1,000	0.0354	0.0447	0.069	0.0500±j0.0422	0.1703±j0.0272	6,780	15,180	18,170	368	499	425	
750	61	15	10	0.949	27	345	65	80	2.187	690	500	2,514	26.2	4,500	1,000	0.0236	0.0301	0.081	0.0369±j0.0391	0.1144±j0.0252	10,150	22,710	27,200	447	630	516	
1000	61	20	10	1.095	27	345	65	80	2.333	920	667	3,022	28.0	6,000	1,000	0.0177	0.0229	0.090	0.0310±j0.0362	0.0862±j0.0229	13,530	30,280	36,260	503	729	581	
1250	91	20	9	1.228	30	345	65	80	2.496	1,150	842	3,584	30.0	7,500	1,000	0.0141	0.0185	0.099	0.0278±j0.0338	0.0687±j0.0218	17,080	38,220	45,780	546	813	631	
1500	91	24	9	1.343	39	345	65	80	2.629	1,380	1,011	4,103	31.6	9,000	1,000	0.0118	0.0164	0.107	0.0259±j0.0316	0.0576±j0.0207	20,500	45,870	54,930	578	879	668	
1/2 Neutral																											
1/0	19	8	14	0.354	20	345	50	55	1.422	97	106	851	17.1	633	1,000	0.1680	0.2110	0.042	0.2167±j0.0535	0.6118±j0.0403	2,140	4,800	5,750	160	196	185	
2/0	19	10	14	0.398	20	345	50	55	1.466	122	132	933	17.6	799	1,000	0.1330	0.1670	0.045	0.1721±j0.0515	0.4876±j0.0375	2,680	6,000	7,180	182	225	210	
4/0	19	10	12	0.504	20	345	50	55	1.606	195	209	1,187	19.3	1,269	1,000	0.0836	0.1051	0.052	0.1098±j0.0480	0.3066±j0.0340	4,240	9,490	11,360	234	299	271	
250	37	12	12	0.547	20	345	50	55	1.649	230	251	1,299	19.8	1,500	1,000	0.0707	0.0890	0.055	0.0940±j0.0465	0.2570±j0.0321	5,090	11,380	13,630	255	329	296	
350	37	11	10	0.650	20	345	50	80	1.844	322	367	1,685	22.1	2,100	1,000	0.0505	0.0638	0.061	0.0698±j0.0446	0.1791±j0.0301	7,440	16,650	19,940	305	404	352	
500	37	15	10	0.773	20	345	50	80	1.967	460	500	2,043	23.6	3,000	1,000	0.0354	0.0447	0.069	0.0518±j0.0418	0.1293±j0.0274	10,150	22,710	27,200	365	497	421	
750	61	18	9	0.949	27	345	65	80	2.211	690	758	2,783	26.5	4,500	1,000	0.0236	0.0301	0.081	0.0392±j0.0376	0.0860±j0.0247	15,370	34,400	41,200	437	621	506	
1000	61	24	9	1.095	27	345	65	80	2.357	920	1,011	3,371	28.3	6,000	1,000	0.0177	0.0229	0.090	0.0334±j0.0337	0.0649±j0.0224	20,500	45,870	54,930	488	714	565	
1250	91	24	8	1.228	30	345	65	80	2.526	1,150	1,268	4,014	30.3	7,500	1,000	0.0141	0.0185	0.099	0.0298±j0.0305	0.0518±j0.0213	25,730	57,570	68,940	528	794	611	
1500	91	28	8	1.343	39	345	65	80	2.659	1,380	1,480	4,573	31.9	9,000	1,000	0.0118	0.0164	0.107	0.0274±j0.0281	0.0443±j0.0203	30,010	67,160	80,430	560	859	648	

35kV MV-90 AL TR-XLPE 100% INS LLDPE - Trefoil

Weights & Measurements															Electrical and Engineering Data - Trefoil - Both Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness			O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities				
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu				Total	DC@ 20°C				AC@ 90°C	1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils			In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft	Ω/kft	Amps	
2/3 Neutral																											
1/0	19	11	14	0.354	20	345	50	55	1.422	97	145	857	17.1	633	1,000	0.1680	0.2110	0.042	0.2172±j0.0534	0.5036±j0.0390	2,950	6,600	7,900	160	196	185	
2/0	19	21	16	0.398	20	345	50	55	1.440	122	174	944	17.3	799	1,000	0.1330	0.1670	0.045	0.1726±j0.0510	0.4105±j0.0351	3,520	7,890	9,450	181	224	210	
4/0	19	14	12	0.504	20	345	50	55	1.606	195	293	1,244	19.3	1,269	1,000	0.0836	0.1051	0.052	0.1106±j0.0478	0.2606±j0.0330	5,930	13,280	15,900	233	298	270	
250	37	16	12	0.547	20	345	50	55	1.649	230	334	1,374	19.8	1,500	1,000	0.0707	0.0890	0.055	0.0950±j0.0462	0.2155±j0.0312	6,780	15,180	18,170	255	329	295	
350	37	22	12	0.650	20	345	50	80	1.802	322	460	1,716	21.6	2,100	1,000	0.0505	0.0638	0.061	0.0709±j0.0436	0.1558±j0.0280	9,330	20,870	24,990	302	400	350	
500	37	20	10	0.773	20	345	50	80	1.967	460	667	2,193	23.6	3,000	1,000	0.0354	0.0447	0.069	0.0534±j0.0406	0.1084±j0.0265	13,530	30,280	36,260	361	493	417	
750	61	24	9	0.949	27	345	65	80	2.211	690	1,011	3,009	26.5	4,500	1,000	0.0236	0.0301	0.081	0.0408±j0.0354	0.0722±j0.0239	20,500	45,870	54,930	430	613	498	
1000	61	25	8	1.095	27	345	65	80	2.387	920	1,321	3,694	28.7	6,000	1,000	0.0177	0.0229	0.090	0.0345±j0.0314	0.0550±j0.0223	26,800	59,970	71,810	480	706	556	
Full Neutral																											
1/0	19	10	12	0.354	20	345	50	55	1.456	97	209	976	17.5	633	1,000	0.1680	0.2110	0.042	0.2180±j0.0538	0.4148±j0.0393	4,240	9,490	11,360	161	197	185	
2/0	19	13	12	0.398	20	345	50	55	1.500	122	272	1,091	18.0	799	1,000	0.1330	0.1670	0.045	0.1739±j0.0516	0.3238±j0.0365	5,510	12,330	14,770	182	226	210	
4/0	19	13	10	0.504	20	345	50	55	1.648	195	434	1,436	19.8	1,269	1,000	0.0836	0.1051	0.052	0.1124±j0.0476	0.2037±j0.0330	8,800	19,680	23,570	233	299	270	
250	37	15	10	0.547	20	345	50	80	1.741	230	500	1,629	20.9	1,500	1,000	0.0707	0.0890	0.055	0.0971±j0.0465	0.1744±j0.0314	10,150	22,710	27,200	254	330	293	
350	37	21	10	0.650	20	345	50	80	1.844	322	701	1,985	22.1	2,100	1,000	0.0505	0.0638	0.061	0.0732±j0.0424	0.1248±j0.0281	14,210	31,790	38,080	300	399	347	
500	37	24	9	0.773	20	345	50	80	1.991	460	1,011	2,535	23.9	3,000	1,000	0.0354	0.0447	0.069	0.0558±j0.0380	0.0871±j0.0261	20,500	45,870	54,930	355	489	411	
750	61	28	8	0.949	27	345	65	80	2.241	690	1,480	3,472	26.9	4,500	1,000	0.0236	0.0301	0.081	0.0422±j0.0319	0.0589±j0.0236	30,010	67,160	80,430	423	606	489	

- All dimensions and weights are nominal and subject to normal manufacturing tolerances.
- Ampacities: In Duct: Buried in duct, earth RHO 100, 25°C ambient, 100% load factor, 39.4" burial depth, and neutral wires bonded at both point. Free Air: 40°C ambient, 100% load factor and neutral wires bonded at both point. Direct Burial: Ambient temperature 25°C and 39.4" burial depth, earth RHO 100, and neutral wires bonded at both point.
- Impedance: Calculations are based on trefoil formation / shield loop / conductor temperature of 90°C.
- Jacket thickness is measured from the outermost point of the concentric neutral wire to the outermost point of the jacket.
- Other designs available upon request.
- The above parameters are for reference only, based on the technical requirements.
- Shield Short-Circuit Current for 0.267 at 250°C and 0.267 at 350°C for reference only. Contact Voltage for capacity ratings.

35kV MV-90 AL TR-XLPE 100% INS LLDPE - Flat

Weights & Measurements															Electrical and Engineering Data - Flat - Both Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 90°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Ω/kft
1/12 Neutral																											
1/0	19	6	16	0.354	20	345	50	55	1.396	97	50	775	16.8	633	1,000	0.1680	0.2150	0.042	0.2163±j0.0584	1.0559±j0.0417	1,010	2,250	2,700	158	200	183	
2/0	19	6	16	0.398	20	345	50	55	1.440	122	50	833	17.3	799	1,000	0.1330	0.1700	0.045	0.1714±j0.0565	1.0110±j0.0399	1,010	2,250	2,700	180	230	207	
4/0	19	6	16	0.504	20	345	50	55	1.546	195	50	980	18.6	1,269	1,000	0.0836	0.1070	0.052	0.1081±j0.0527	0.9478±j0.0363	1,010	2,250	2,700	231	304	267	
250	37	6	16	0.547	20	345	50	55	1.589	230	50	1,053	19.1	1,500	1,000	0.0707	0.0910	0.055	0.0917±j0.0514	0.9314±j0.0352	1,010	2,250	2,700	253	336	292	
350	37	7	16	0.650	20	345	50	80	1.742	322	58	1,283	20.9	2,100	1,000	0.0505	0.0650	0.061	0.0663±j0.0496	0.7856±j0.0321	1,170	2,630	3,150	303	412	349	
500	37	7	14	0.773	20	345	50	80	1.891	460	92	1,578	22.7	3,000	1,000	0.0354	0.0460	0.069	0.0475±j0.0478	0.4988±j0.0304	1,880	4,200	5,030	365	513	421	
750	61	10	14	0.949	27	345	65	80	2.111	690	132	2,072	25.3	4,500	1,000	0.0236	0.0310	0.081	0.0334±j0.0451	0.3480±j0.0266	2,680	6,000	7,180	445	649	513	
1000	61	13	14	1.095	27	345	65	80	2.257	920	172	2,460	27.1	6,000	1,000	0.0177	0.0230	0.090	0.0268±j0.0432	0.2675±j0.0241	3,480	7,800	9,340	504	756	581	
1250	91	16	14	1.228	30	345	65	80	2.396	1,150	211	2,850	28.8	7,500	1,000	0.0141	0.0190	0.099	0.0230±j0.0417	0.2172±j0.0224	4,290	9,590	11,490	550	846	633	
1500	91	19	14	1.343	39	345	65	80	2.529	1,380	251	3,244	30.4	9,000	1,000	0.0118	0.0160	0.107	0.0209±j0.0407	0.1831±j0.0213	5,090	11,390	13,640	582	917	670	
1/6 Neutral																											
1/0	19	6	16	0.354	20	345	50	55	1.396	97	50	775	16.8	633	1,000	0.1680	0.2150	0.042	0.2163±j0.0584	1.0559±j0.0417	1,010	2,250	2,700	158	200	183	
2/0	19	6	16	0.398	20	345	50	55	1.440	122	50	833	17.3	799	1,000	0.1330	0.1700	0.045	0.1714±j0.0565	1.0110±j0.0399	1,010	2,250	2,700	180	230	207	
4/0	19	9	16	0.504	20	345	50	55	1.546	195	74	1,003	18.6	1,269	1,000	0.0836	0.1070	0.052	0.1086±j0.0526	0.6676±j0.0344	1,510	3,380	4,050	230	304	266	
250	37	10	16	0.547	20	345	50	55	1.589	230	83	1,083	19.1	1,500	1,000	0.0707	0.0910	0.055	0.0924±j0.0514	0.5952±j0.0328	1,680	3,760	4,500	252	335	291	
350	37	9	14	0.650	20	345	50	80	1.768	322	119	1,312	21.2	2,100	1,000	0.0505	0.0650	0.061	0.0675±j0.0498	0.4175±j0.0310	2,410	5,400	6,460	301	411	347	
500	37	8	12	0.773	20	345	50	80	1.925	460	167	1,688	23.1	3,000	1,000	0.0354	0.0460	0.069	0.0490±j0.0479	0.2950±j0.0298	3,390	7,590	9,090	360	509	415	
750	61	19	14	0.949	27	345	65	80	2.111	690	251	2,180	25.3	4,500	1,000	0.0236	0.0310	0.081	0.0356±j0.0445	0.1977±j0.0245	5,090	11,390	13,640	430	631	496	
1000	61	16	12	1.095	27	345	65	80	2.291	920	334	2,657	27.5	6,000	1,000	0.0177	0.0230	0.090	0.0297±j0.0425	0.1481±j0.0235	6,780	15,180	18,170	477	725	550	
1250	91	20	12	1.228	30	345	65	80	2.430	1,150	418	3,090	29.2	7,500	1,000	0.0141	0.0190	0.099	0.0265±j0.0405	0.1187±j0.0218	8,480	18,970	22,720	508	797	587	
1500	91	24	12	1.343	39	345	65	80	2.563	1,380	502	3,526	30.8	9,000	1,000	0.0118	0.0160	0.107	0.0249±j0.0388	0.0993±j0.0207	10,170	22,760	27,260	528	849	609	

35kV MV-90 AL TR-XLPE 100% INS LLDPE - Flat

Weights & Measurements															Electrical and Engineering Data - Flat - Both Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 90°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Ω/kft
1/3 Neutral																											
1/0	19	6	14	0.354	20	345	50	55	1.422	97	79	828	17.1	633	1,000	0.1680	0.2150	0.042	0.2168±j0.0588	0.7440±j0.0417	1,610	3,600	4,310	159	201	183	
2/0	19	11	16	0.398	20	345	50	55	1.440	122	91	870	17.3	799	1,000	0.1330	0.1700	0.045	0.1722±j0.0564	0.6289±j0.0372	1,850	4,130	4,950	179	230	207	
4/0	19	11	14	0.504	20	345	50	55	1.572	195	145	1,095	18.9	1,269	1,000	0.0836	0.1070	0.052	0.1100±j0.0528	0.3955±j0.0336	2,950	6,600	7,900	230	304	265	
250	37	13	14	0.547	20	345	50	55	1.615	230	172	1,192	19.4	1,500	1,000	0.0707	0.0910	0.055	0.0941±j0.0515	0.3348±j0.0319	3,480	7,800	9,340	250	334	289	
350	37	18	14	0.650	20	345	50	80	1.768	322	238	1,477	21.2	2,100	1,000	0.0505	0.0650	0.061	0.0698±j0.0492	0.2413±j0.0286	4,820	10,790	12,930	295	406	341	
500	37	16	12	0.773	20	345	50	80	1.925	460	334	1,838	23.1	3,000	1,000	0.0354	0.0460	0.069	0.0520±j0.0468	0.1703±j0.0272	6,780	15,180	18,170	348	497	402	
750	61	15	10	0.949	27	345	65	80	2.187	690	500	2,514	26.2	4,500	1,000	0.0236	0.0310	0.081	0.0396±j0.0431	0.1144±j0.0252	10,150	22,710	27,200	406	608	469	
1000	61	20	10	1.095	27	345	65	80	2.333	920	667	3,022	28.0	6,000	1,000	0.0177	0.0230	0.090	0.0342±j0.0394	0.0862±j0.0229	13,530	30,280	36,260	440	683	509	
1250	91	20	9	1.228	30	345	65	80	2.496	1,150	842	3,584	30.0	7,500	1,000	0.0141	0.0190	0.099	0.0312±j0.0362	0.0687±j0.0218	17,080	38,220	45,780	464	743	536	
1500	91	24	9	1.343	39	345	65	80	2.629	1,380	1,011	4,103	31.6	9,000	1,000	0.0118	0.0160	0.107	0.0294±j0.0333	0.0576±j0.0207	20,500	45,870	54,930	481	789	556	
1/2 Neutral																											
1/0	19	8	14	0.354	20	345	50	55	1.422	97	106	851	17.1	633	1,000	0.1680	0.2150	0.042	0.2174±j0.0587	0.6118±j0.0403	2,140	4,800	5,750	158	201	182	
2/0	19	10	14	0.398	20	345	50	55	1.466	122	132	933	17.6	799	1,000	0.1330	0.1700	0.045	0.1729±j0.0567	0.4876±j0.0375	2,680	6,000	7,180	179	230	207	
4/0	19	10	12	0.504	20	345	50	55	1.606	195	209	1,187	19.3	1,269	1,000	0.0836	0.1070	0.052	0.1112±j0.0530	0.3066±j0.0340	4,240	9,490	11,360	229	304	264	
250	37	12	12	0.547	20	345	50	55	1.649	230	251	1,299	19.8	1,500	1,000	0.0707	0.0910	0.055	0.0955±j0.0515	0.2570±j0.0321	5,090	11,380	13,630	249	334	287	
350	37	11	10	0.650	20	345	50	80	1.844	322	367	1,685	22.1	2,100	1,000	0.0505	0.0650	0.061	0.0720±j0.0492	0.1791±j0.0301	7,440	16,650	19,940	291	405	336	
500	37	15	10	0.773	20	345	50	80	1.967	460	500	2,043	23.6	3,000	1,000	0.0354	0.0460	0.069	0.0546±j0.0457	0.1293±j0.0274	10,150	22,710	27,200	340	489	392	
750	61	18	9	0.949	27	345	65	80	2.211	690	758	2,783	26.5	4,500	1,000	0.0236	0.0310	0.081	0.0425±j0.0403	0.0860±j0.0247	15,370	34,400	41,200	390	591	451	
1000	61	24	9	1.095	27	345	65	80	2.357	920	1,011	3,371	28.3	6,000	1,000	0.0177	0.0230	0.090	0.0368±j0.0354	0.0649±j0.0224	20,500	45,870	54,930	423	662	489	
1250	91	24	8	1.228	30	345	65	80	2.526	1,150	1,268	4,014	30.3	7,500	1,000	0.0141	0.0190	0.099	0.0330±j0.0313	0.0518±j0.0213	25,730	57,570	68,940	450	726	520	
1500	91	28	8	1.343	39	345	65	80	2.659	1,380	1,480	4,573	31.9	9,000	1,000	0.0118	0.0160	0.107	0.0303±j0.0283	0.0443±j0.0203	30,010	67,160	80,430	473	779	546	

35kV MV-90 AL TR-XLPE 100% INS LLDPE - Flat

Weights & Measurements															Electrical and Engineering Data - Flat - Both Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness			O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities				
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu				Total	DC@ 20°C				AC@ 90°C	1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils			In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft	Ω/kft	Amps	
2/3 Neutral																											
1/0	19	11	14	0.354	20	345	50	55	1.422	97	145	857	17.1	633	1,000	0.1680	0.2150	0.042	0.2181±j0.0586	0.5036±j0.0390	2,950	6,600	7,900	158	201	182	
2/0	19	21	16	0.398	20	345	50	55	1.440	122	174	944	17.3	799	1,000	0.1330	0.1700	0.045	0.1738±j0.0561	0.4105±j0.0351	3,520	7,890	9,450	178	229	206	
4/0	19	14	12	0.504	20	345	50	55	1.606	195	293	1,244	19.3	1,269	1,000	0.0836	0.1070	0.052	0.1123±j0.0526	0.2606±j0.0330	5,930	13,280	15,900	228	303	263	
250	37	16	12	0.547	20	345	50	55	1.649	230	334	1,374	19.8	1,500	1,000	0.0707	0.0910	0.055	0.0970±j0.0509	0.2155±j0.0312	6,780	15,180	18,170	246	332	285	
350	37	22	12	0.650	20	345	50	80	1.802	322	460	1,716	21.6	2,100	1,000	0.0505	0.0650	0.061	0.0735±j0.0477	0.1558±j0.0280	9,330	20,870	24,990	287	399	332	
500	37	20	10	0.773	20	345	50	80	1.967	460	667	2,193	23.6	3,000	1,000	0.0354	0.0460	0.069	0.0566±j0.0437	0.1084±j0.0265	13,530	30,280	36,260	333	481	384	
750	61	24	9	0.949	27	345	65	80	2.211	690	1,011	3,009	26.5	4,500	1,000	0.0236	0.0310	0.081	0.0442±j0.0371	0.0722±j0.0239	20,500	45,870	54,930	382	580	441	
1000	61	25	8	1.095	27	345	65	80	2.387	920	1,321	3,694	28.7	6,000	1,000	0.0177	0.0230	0.090	0.0376±j0.0320	0.0550±j0.0223	26,800	59,970	71,810	418	657	483	
Full Neutral																											
1/0	19	10	12	0.354	20	345	50	55	1.456	97	209	976	17.5	633	1,000	0.1680	0.2150	0.042	0.2193±j0.0589	0.4148±j0.0393	4,240	9,490	11,360	158	201	182	
2/0	19	13	12	0.398	20	345	50	55	1.500	122	272	1,091	18.0	799	1,000	0.1330	0.1700	0.045	0.1756±j0.0565	0.3238±j0.0365	5,510	12,330	14,770	178	230	206	
4/0	19	13	10	0.504	20	345	50	55	1.648	195	434	1,436	19.8	1,269	1,000	0.0836	0.1070	0.052	0.1149±j0.0519	0.2037±j0.0330	8,800	19,680	23,570	225	302	260	
250	37	15	10	0.547	20	345	50	80	1.741	230	500	1,629	20.9	1,500	1,000	0.0707	0.0910	0.055	0.0999±j0.0504	0.1744±j0.0314	10,150	22,710	27,200	244	331	281	
350	37	21	10	0.650	20	345	50	80	1.844	322	701	1,985	22.1	2,100	1,000	0.0505	0.0650	0.061	0.0762±j0.0454	0.1248±j0.0281	14,210	31,790	38,080	282	394	325	
500	37	24	9	0.773	20	345	50	80	1.991	460	1,011	2,535	23.9	3,000	1,000	0.0354	0.0460	0.069	0.0592±j0.0397	0.0871±j0.0261	20,500	45,870	54,930	325	473	375	
750	61	28	8	0.949	27	345	65	80	2.241	690	1,480	3,472	26.9	4,500	1,000	0.0236	0.0310	0.081	0.0451±j0.0321	0.0589±j0.0236	30,010	67,160	80,430	378	577	437	

- All dimensions and weights are nominal and subject to normal manufacturing tolerances.
- Ampacities: In Duct: Buried in duct, earth RHO 100, 25°C ambient, 100% load factor, 39.4" burial depth, and neutral wires bonded at both point. Free Air: 40°C ambient, 100% load factor and neutral wires bonded at both point. Direct Burial: Ambient temperature 25°C and 39.4" burial depth, earth RHO 100, and neutral wires bonded at both point.
- Impedance: Calculations are based on flat formation / shield loop / conductor temperature of 90°C.
- Jacket thickness is measured from the outermost point of the concentric neutral wire to the outermost point of the jacket.
- Other designs available upon request.
- The above parameters are for reference only, based on the technical requirements.
- Shield Short-Circuit Current for 0.267 at 250°C and 0.267 at 350°C for reference only. Contact Voltage for capacity ratings.

Medium Voltage Cable

35kV MV-90 AL TR-XLPE 133% INS LLDPE

✂ Construction

- Conductor: 1/0 AWG - 1500kcmil Class B compressed concentric lay stranded 1350-H19 aluminum
- Conductor Shield: Extruded semi-conducting thermoset polymeric stress control layer
- Insulation: Extruded tree-retardant cross-linked polyethylene
- Insulation Shield: Extruded semi-conducting thermoset layer, clean and free stripping from insulation
- Concentric Neutral: Helically applied, annealed, solid bare copper wires
- Jacket: Black with 3 red stripes at 120°, non-conducting, sunlight resistant, linear low-density polyethylene jacket extruded to fill spaces between neutral wires

🏆 Standards

- UL1072 Medium Voltage Cable
- ANSI/ICEA S-94-649
- ANSI/ICEA T-27-581
- ANSI/ICEA T-34-664
- ANSI/ICEA P-45-482
- AEIC CS-8
- RUS U-1



⚙ Applications

- Primarily underground distribution
- Wet or dry locations, direct burial, duct, and where exposed to sunlight
- 35kV or less
- Conductor temperatures not to exceed 90°C for normal operation
- Insulation level: 133% Insulation level

☰ Options

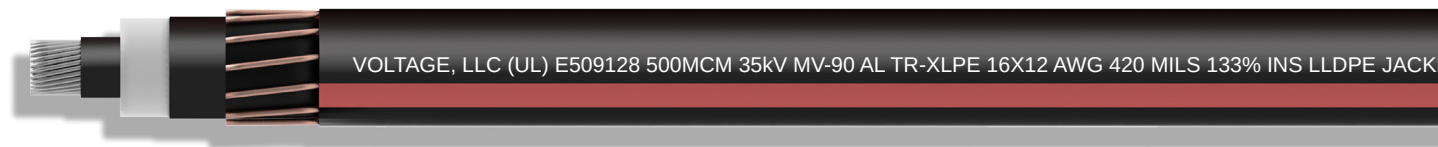
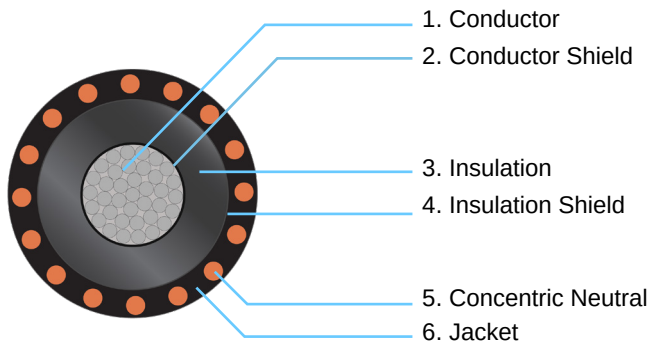
- EPR Insulation
- XLPE jacket
- TYPE MV-105
- Copper tape screen
- Different concentric neutral levels
- Other voltages available
- Other insulation levels

📦 Packaging

- Material cut to length
- Shipped on steel reels
- Triplex or parallel packaging available

✂ Sample Print

- Interval imprints with production date, time, cable type, sequential length in 2-foot increments



35kV MV-90 AL TR-XLPE 133% INS LLDPE - Trefoil

Weights & Measurements															Electrical and Engineering Data - Trefoil - Single Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 90°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft	μF/kft	Ω/kft	Ω/kft	Amps	
1/12 Neutral																											
1/0	19	6	16	0.354	20	420	50	55	1.546	97	50	923	18.6	633	1,000	0.1680	0.2150	0.037	0.2153±j0.0594	0.2693±j0.7546	1,010	2,250	2,700	161	196	184	
2/0	19	6	16	0.398	20	420	50	55	1.590	122	50	984	19.1	799	1,000	0.1330	0.1700	0.040	0.1704±j0.0577	0.2244±j0.7507	1,010	2,250	2,700	182	225	210	
4/0	19	6	16	0.504	20	420	50	80	1.746	195	50	1,200	21.0	1,269	1,000	0.0836	0.1070	0.045	0.1072±j0.0550	0.1611±j0.7409	1,010	2,250	2,700	235	298	270	
250	37	6	16	0.547	20	420	50	80	1.789	230	50	1,278	21.5	1,500	1,000	0.0707	0.0910	0.048	0.0908±j0.0539	0.1447±j0.7379	1,010	2,250	2,700	258	329	296	
350	37	7	16	0.650	20	420	50	80	1.892	322	58	1,464	22.7	2,100	1,000	0.0505	0.0650	0.053	0.0650±j0.0517	0.1189±j0.7314	1,170	2,630	3,150	309	404	356	
500	37	7	14	0.773	20	420	65	80	2.071	460	92	1,825	24.9	3,000	1,000	0.0354	0.0460	0.060	0.0456±j0.0501	0.0994±j0.7233	1,880	4,200	5,030	378	506	434	
750	61	10	14	0.949	27	420	65	80	2.261	690	132	2,290	27.1	4,500	1,000	0.0236	0.0310	0.069	0.0307±j0.0479	0.0843±j0.7145	2,680	6,000	7,180	471	649	541	
1000	61	13	14	1.095	27	420	65	80	2.407	920	172	2,692	28.9	6,000	1,000	0.0177	0.0230	0.077	0.0233±j0.0463	0.0768±j0.7084	3,480	7,800	9,340	548	771	630	
1250	91	16	14	1.228	30	420	65	80	2.546	1,150	211	3,095	30.6	7,500	1,000	0.0141	0.0190	0.084	0.0189±j0.0452	0.0721±j0.7031	4,290	9,590	11,490	618	885	710	
1500	91	19	14	1.343	39	420	65	80	2.679	1,380	251	3,502	32.2	9,000	1,000	0.0118	0.0160	0.091	0.0161±j0.0445	0.0692±j0.6988	5,090	11,390	13,640	678	986	778	
1/6 Neutral																											
1/0	19	6	16	0.354	20	420	50	55	1.546	97	50	923	18.6	633	1,000	0.1680	0.2150	0.037	0.2153±j0.0594	0.2693±j0.7546	1,010	2,250	2,700	161	196	184	
2/0	19	6	16	0.398	20	420	50	55	1.590	122	50	984	19.1	799	1,000	0.1330	0.1700	0.040	0.1704±j0.0577	0.2244±j0.7507	1,010	2,250	2,700	182	225	210	
4/0	19	9	16	0.504	20	420	50	80	1.746	195	74	1,222	21.0	1,269	1,000	0.0836	0.1070	0.045	0.1072±j0.0550	0.1611±j0.7409	1,510	3,380	4,050	235	298	270	
250	37	10	16	0.547	20	420	50	80	1.789	230	83	1,307	21.5	1,500	1,000	0.0707	0.0910	0.048	0.0908±j0.0539	0.1447±j0.7379	1,680	3,760	4,500	258	329	296	
350	37	9	14	0.650	20	420	50	80	1.918	322	119	1,554	23.0	2,100	1,000	0.0505	0.0650	0.053	0.0650±j0.0519	0.1189±j0.7308	2,410	5,400	6,460	310	405	356	
500	37	8	12	0.773	20	420	65	80	2.105	460	167	1,939	25.3	3,000	1,000	0.0354	0.0460	0.060	0.0456±j0.0504	0.0994±j0.7226	3,390	7,590	9,090	379	508	435	
750	61	19	14	0.949	27	420	65	80	2.261	690	251	2,397	27.1	4,500	1,000	0.0236	0.0310	0.069	0.0307±j0.0479	0.0843±j0.7145	5,090	11,390	13,640	471	649	541	
1000	61	16	12	1.095	27	420	65	80	2.441	920	334	2,892	29.3	6,000	1,000	0.0177	0.0230	0.077	0.0233±j0.0466	0.0768±j0.7077	6,780	15,180	18,170	549	775	631	
1250	91	20	12	1.228	30	420	65	80	2.580	1,150	418	3,338	31.0	7,500	1,000	0.0141	0.0190	0.084	0.0188±j0.0454	0.0721±j0.7025	8,480	18,970	22,720	619	889	711	
1500	91	24	12	1.343	39	420	65	80	2.713	1,380	502	3,788	32.6	9,000	1,000	0.0118	0.0160	0.091	0.0161±j0.0447	0.0692±j0.6982	10,170	22,760	27,260	679	990	779	

35kV MV-90 AL TR-XLPE 133% INS LLDPE - Trefoil

Weights & Measurements															Electrical and Engineering Data - Trefoil - Single Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 90°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Amps
1/3 Neutral																											
1/0	19	6	14	0.354	20	420	50	55	1.572	97	79	977	18.9	633	1,000	0.1680	0.2150	0.037	0.2153±j0.0600	0.2693±j0.7538	1,610	3,600	4,310	161	197	185	
2/0	19	11	16	0.398	20	420	50	55	1.590	122	91	1,021	19.1	799	1,000	0.1330	0.1700	0.040	0.1704±j0.0577	0.2244±j0.7507	1,850	4,130	4,950	182	225	210	
4/0	19	11	14	0.504	20	420	50	80	1.772	195	145	1,318	21.3	1,269	1,000	0.0836	0.1070	0.045	0.1072±j0.0553	0.1611±j0.7402	2,950	6,600	7,900	236	299	271	
250	37	13	14	0.547	20	420	50	80	1.815	230	172	1,420	21.8	1,500	1,000	0.0707	0.0910	0.048	0.0908±j0.0542	0.1447±j0.7372	3,480	7,800	9,340	258	331	297	
350	37	18	14	0.650	20	420	50	80	1.918	322	238	1,660	23.0	2,100	1,000	0.0505	0.0650	0.053	0.0650±j0.0519	0.1189±j0.7308	4,820	10,790	12,930	310	405	356	
500	37	16	12	0.773	20	420	65	80	2.105	460	334	2,089	25.3	3,000	1,000	0.0354	0.0460	0.060	0.0456±j0.0504	0.0994±j0.7226	6,780	15,180	18,170	379	508	435	
750	61	15	10	0.949	27	420	65	80	2.337	690	500	2,739	28.0	4,500	1,000	0.0236	0.0310	0.069	0.0307±j0.0485	0.0843±j0.7130	10,150	22,710	27,200	473	655	543	
1000	61	20	10	1.095	27	420	65	80	2.483	920	667	3,262	29.8	6,000	1,000	0.0177	0.0230	0.077	0.0233±j0.0469	0.0768±j0.7069	13,530	30,280	36,260	551	779	632	
1250	91	20	9	1.228	30	420	65	80	2.646	1,150	842	3,839	31.8	7,500	1,000	0.0141	0.0190	0.084	0.0188±j0.0459	0.0721±j0.7013	17,080	38,220	45,780	622	896	714	
1500	91	24	9	1.343	39	420	65	80	2.779	1,380	1,011	4,370	33.4	9,000	1,000	0.0118	0.0160	0.091	0.0161±j0.0452	0.0692±j0.6970	20,500	45,870	54,930	682	998	782	
1/2 Neutral																											
1/0	19	8	14	0.354	20	420	50	55	1.572	97	106	1,001	18.9	633	1,000	0.1680	0.2150	0.037	0.2153±j0.0597	0.2693±j0.7538	2,140	4,800	5,750	161	197	185	
2/0	19	10	14	0.398	20	420	50	55	1.616	122	132	1,087	19.4	799	1,000	0.1330	0.1700	0.040	0.1704±j0.0581	0.2244±j0.7499	2,680	6,000	7,180	183	226	210	
4/0	19	10	12	0.504	20	420	50	80	1.806	195	209	1,415	21.7	1,269	1,000	0.0836	0.1070	0.045	0.1072±j0.0557	0.1611±j0.7394	4,240	9,490	11,360	236	301	271	
250	37	12	12	0.547	20	420	50	80	1.849	230	251	1,532	22.2	1,500	1,000	0.0707	0.0910	0.048	0.0908±j0.0545	0.1447±j0.7364	5,090	11,380	13,630	259	332	297	
350	37	11	10	0.650	20	420	50	80	1.994	322	367	1,876	23.9	2,100	1,000	0.0505	0.0650	0.053	0.0650±j0.0527	0.1189±j0.7290	7,440	16,650	19,940	312	410	358	
500	37	15	10	0.773	20	420	65	80	2.147	460	500	2,299	25.8	3,000	1,000	0.0354	0.0460	0.060	0.0456±j0.0508	0.0994±j0.7217	10,150	22,710	27,200	380	511	436	
750	61	18	9	0.949	27	420	65	80	2.361	690	758	3,010	28.3	4,500	1,000	0.0236	0.0310	0.069	0.0307±j0.0487	0.0843±j0.7125	15,370	34,400	41,200	474	657	544	
1000	61	24	9	1.095	27	420	65	80	2.507	920	1,011	3,613	30.1	6,000	1,000	0.0177	0.0230	0.077	0.0233±j0.0471	0.0768±j0.7065	20,500	45,870	54,930	552	781	633	
1250	91	24	8	1.228	30	420	65	80	2.676	1,150	1,268	4,271	32.1	7,500	1,000	0.0141	0.0190	0.084	0.0188±j0.0461	0.0721±j0.7009	25,730	57,570	68,940	623	899	715	
1500	91	28	8	1.343	39	420	65	80	2.809	1,380	1,480	4,844	33.7	9,000	1,000	0.0118	0.0160	0.091	0.0161±j0.0454	0.0692±j0.6966	30,010	67,160	80,430	684	1,001	784	

35kV MV-90 AL TR-XLPE 133% INS LLDPE - Trefoil

Weights & Measurements															Electrical and Engineering Data - Trefoil - Single Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness			O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities				
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu				Total	DC@ 20°C				AC@ 90°C	1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils			In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft	Ω/kft	Amps	
2/3 Neutral																											
1/0	19	11	14	0.354	20	420	50	55	1.572	97	145	1,037	18.9	633	1,000	0.1680	0.2150	0.037	0.2153±j0.0597	0.2693±j0.7538	2,950	6,600	7,900	161	197	185	
2/0	19	21	16	0.398	20	420	50	55	1.590	122	174	1,096	19.1	799	1,000	0.1330	0.1700	0.040	0.1704±j0.0577	0.2244±j0.7507	3,520	7,890	9,450	182	225	210	
4/0	19	14	12	0.504	20	420	50	80	1.806	195	293	1,471	21.7	1,269	1,000	0.0836	0.1070	0.045	0.1072±j0.0557	0.1611±j0.7394	5,930	13,280	15,900	236	301	271	
250	37	16	12	0.547	20	420	50	80	1.849	230	334	1,607	22.2	1,500	1,000	0.0707	0.0910	0.048	0.0908±j0.0545	0.1447±j0.7364	6,780	15,180	18,170	259	332	297	
350	37	22	12	0.650	20	420	50	80	1.952	322	460	1,903	23.4	2,100	1,000	0.0505	0.0650	0.053	0.0650±j0.0523	0.1189±j0.7300	9,330	20,870	24,990	311	407	357	
500	37	20	10	0.773	20	420	65	80	2.147	460	667	2,449	25.8	3,000	1,000	0.0354	0.0460	0.060	0.0456±j0.0508	0.0994±j0.7217	13,530	30,280	36,260	380	511	436	
750	61	24	9	0.949	27	420	65	80	2.361	690	1,011	3,237	28.3	4,500	1,000	0.0236	0.0310	0.069	0.0307±j0.0487	0.0843±j0.7125	20,500	45,870	54,930	474	657	544	
1000	61	25	8	1.095	27	420	65	80	2.537	920	1,321	3,939	30.4	6,000	1,000	0.0177	0.0230	0.077	0.0233±j0.0473	0.0768±j0.7059	26,800	59,970	71,810	553	784	634	
Full Neutral																											
1/0	19	10	12	0.354	20	420	50	55	1.606	97	209	1,129	19.3	633	1,000	0.1680	0.2150	0.037	0.2153±j0.0601	0.2693±j0.7528	4,240	9,490	11,360	161	198	185	
2/0	19	13	12	0.398	20	420	50	55	1.650	122	272	1,249	19.8	799	1,000	0.1330	0.1700	0.040	0.1704±j0.0585	0.2244±j0.7490	5,510	12,330	14,770	183	228	210	
4/0	19	13	10	0.504	20	420	50	80	1.848	195	434	1,669	22.2	1,269	1,000	0.0836	0.1070	0.045	0.1072±j0.0561	0.1611±j0.7383	8,800	19,680	23,570	237	303	272	
250	37	15	10	0.547	20	420	50	80	1.891	230	500	1,810	22.7	1,500	1,000	0.0707	0.0910	0.048	0.0908±j0.0550	0.1447±j0.7354	10,150	22,710	27,200	260	335	298	
350	37	21	10	0.650	20	420	50	80	1.994	322	701	2,176	23.9	2,100	1,000	0.0505	0.0650	0.053	0.0650±j0.0527	0.1189±j0.7290	14,210	31,790	38,080	312	410	358	
500	37	24	9	0.773	20	420	65	80	2.171	460	1,011	2,794	26.1	3,000	1,000	0.0354	0.0460	0.060	0.0456±j0.0510	0.0994±j0.7211	20,500	45,870	54,930	380	512	436	
750	61	28	8	0.949	27	420	65	80	2.391	690	1,480	3,703	28.7	4,500	1,000	0.0236	0.0310	0.069	0.0307±j0.0489	0.0843±j0.7120	30,010	67,160	80,430	475	659	545	

- All dimensions and weights are nominal and subject to normal manufacturing tolerances.
- Ampacities: In Duct: Buried in duct, earth RHO 100, 25°C ambient, 100% load factor, 39.4" burial depth, and neutral wires bonded at a single point. Free Air: 40°C ambient, 100% load factor and neutral wires bonded at a single point. Direct Burial: Ambient temperature 25°C and 39.4" burial depth, earth RHO 100, and neutral wires bonded at a single point.
- Impedance: Calculations are based on trefoil formation / earth loop / conductor temperature of 90°C.
- Jacket thickness is measured from the outermost point of the concentric neutral wire to the outermost point of the jacket.
- Other designs available upon request.
- The above parameters are for reference only, based on the technical requirements.
- Shield Short-Circuit Current for 0.267 at 250°C and 0.267 at 350°C for reference only. Contact Voltage for capacity ratings.

35kV MV-90 AL TR-XLPE 133% INS LLDPE - Flat

Weights & Measurements															Electrical and Engineering Data - Flat - Single Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 90°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Amps
1/12 Neutral																											
1/0	19	6	16	0.354	20	420	50	55	1.546	97	50	923	18.6	633	1,000	0.1680	0.2150	0.037	0.2153±j0.0506	0.2693±j0.7440	1,010	2,250	2,700	159	201	182	
2/0	19	6	16	0.398	20	420	50	55	1.590	122	50	984	19.1	799	1,000	0.1330	0.1700	0.040	0.1704±j0.0489	0.2244±j0.7401	1,010	2,250	2,700	181	231	207	
4/0	19	6	16	0.504	20	420	50	80	1.746	195	50	1,200	21.0	1,269	1,000	0.0836	0.1070	0.045	0.1071±j0.0461	0.1611±j0.7303	1,010	2,250	2,700	233	306	267	
250	37	6	16	0.547	20	420	50	80	1.789	230	50	1,278	21.5	1,500	1,000	0.0707	0.0910	0.048	0.0907±j0.0450	0.1447±j0.7273	1,010	2,250	2,700	255	338	292	
350	37	7	16	0.650	20	420	50	80	1.892	322	58	1,464	22.7	2,100	1,000	0.0505	0.0650	0.053	0.0650±j0.0428	0.1189±j0.7208	1,170	2,630	3,150	306	415	351	
500	37	7	14	0.773	20	420	65	80	2.071	460	92	1,825	24.9	3,000	1,000	0.0354	0.0460	0.060	0.0455±j0.0413	0.0994±j0.7127	1,880	4,200	5,030	374	520	428	
750	61	10	14	0.949	27	420	65	80	2.261	690	132	2,290	27.1	4,500	1,000	0.0236	0.0310	0.069	0.0306±j0.0390	0.0843±j0.7039	2,680	6,000	7,180	465	667	533	
1000	61	13	14	1.095	27	420	65	80	2.407	920	172	2,692	28.9	6,000	1,000	0.0177	0.0230	0.077	0.0232±j0.0375	0.0768±j0.6977	3,480	7,800	9,340	542	794	620	
1250	91	16	14	1.228	30	420	65	80	2.546	1,150	211	3,095	30.6	7,500	1,000	0.0141	0.0190	0.084	0.0187±j0.0364	0.0721±j0.6925	4,290	9,590	11,490	611	912	698	
1500	91	19	14	1.343	39	420	65	80	2.679	1,380	251	3,502	32.2	9,000	1,000	0.0118	0.0160	0.091	0.0159±j0.0356	0.0692±j0.6881	5,090	11,390	13,640	669	1,016	765	
1/6 Neutral																											
1/0	19	6	16	0.354	20	420	50	55	1.546	97	50	923	18.6	633	1,000	0.1680	0.2150	0.037	0.2153±j0.0506	0.2693±j0.7440	1,010	2,250	2,700	159	201	182	
2/0	19	6	16	0.398	20	420	50	55	1.590	122	50	984	19.1	799	1,000	0.1330	0.1700	0.040	0.1704±j0.0489	0.2244±j0.7401	1,010	2,250	2,700	181	231	207	
4/0	19	9	16	0.504	20	420	50	80	1.746	195	74	1,222	21.0	1,269	1,000	0.0836	0.1070	0.045	0.1071±j0.0461	0.1611±j0.7303	1,510	3,380	4,050	233	306	267	
250	37	10	16	0.547	20	420	50	80	1.789	230	83	1,307	21.5	1,500	1,000	0.0707	0.0910	0.048	0.0907±j0.0450	0.1447±j0.7273	1,680	3,760	4,500	255	338	292	
350	37	9	14	0.650	20	420	50	80	1.918	322	119	1,554	23.0	2,100	1,000	0.0505	0.0650	0.053	0.0650±j0.0431	0.1189±j0.7202	2,410	5,400	6,460	307	416	352	
500	37	8	12	0.773	20	420	65	80	2.105	460	167	1,939	25.3	3,000	1,000	0.0354	0.0460	0.060	0.0455±j0.0416	0.0994±j0.7120	3,390	7,590	9,090	374	522	429	
750	61	19	14	0.949	27	420	65	80	2.261	690	251	2,397	27.1	4,500	1,000	0.0236	0.0310	0.069	0.0306±j0.0390	0.0843±j0.7039	5,090	11,390	13,640	465	667	533	
1000	61	16	12	1.095	27	420	65	80	2.441	920	334	2,892	29.3	6,000	1,000	0.0177	0.0230	0.077	0.0232±j0.0377	0.0768±j0.6971	6,780	15,180	18,170	543	797	621	
1250	91	20	12	1.228	30	420	65	80	2.580	1,150	418	3,338	31.0	7,500	1,000	0.0141	0.0190	0.084	0.0187±j0.0366	0.0721±j0.6919	8,480	18,970	22,720	612	916	700	
1500	91	24	12	1.343	39	420	65	80	2.713	1,380	502	3,788	32.6	9,000	1,000	0.0118	0.0160	0.091	0.0159±j0.0359	0.0692±j0.6876	10,170	22,760	27,260	671	1,020	767	

35kV MV-90 AL TR-XLPE 133% INS LLDPE - Flat

Weights & Measurements															Electrical and Engineering Data - Flat - Single Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 90°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		AWG MCM	No. Wires	Size	In.	Mils				In.	lbs./kft					In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Ω/kft
1/3 Neutral																											
1/0	19	6	14	0.354	20	420	50	55	1.572	97	79	977	18.9	633	1,000	0.1680	0.2150	0.037	0.2153±j0.0509	0.2693±j0.7432	1,610	3,600	4,310	160	202	182	
2/0	19	11	16	0.398	20	420	50	55	1.590	122	91	1,021	19.1	799	1,000	0.1330	0.1700	0.040	0.1704±j0.0489	0.2244±j0.7401	1,850	4,130	4,950	181	231	207	
4/0	19	11	14	0.504	20	420	50	80	1.772	195	145	1,318	21.3	1,269	1,000	0.0836	0.1070	0.045	0.1071±j0.0465	0.1611±j0.7296	2,950	6,600	7,900	234	307	267	
250	37	13	14	0.547	20	420	50	80	1.815	230	172	1,420	21.8	1,500	1,000	0.0707	0.0910	0.048	0.0907±j0.0453	0.1447±j0.7266	3,480	7,800	9,340	256	339	293	
350	37	18	14	0.650	20	420	50	80	1.918	322	238	1,660	23.0	2,100	1,000	0.0505	0.0650	0.053	0.0650±j0.0431	0.1189±j0.7202	4,820	10,790	12,930	307	416	352	
500	37	16	12	0.773	20	420	65	80	2.105	460	334	2,089	25.3	3,000	1,000	0.0354	0.0460	0.060	0.0455±j0.0416	0.0994±j0.7120	6,780	15,180	18,170	374	522	429	
750	61	15	10	0.949	27	420	65	80	2.337	690	500	2,739	28.0	4,500	1,000	0.0236	0.0310	0.069	0.0306±j0.0397	0.0843±j0.7024	10,150	22,710	27,200	468	674	535	
1000	61	20	10	1.095	27	420	65	80	2.483	920	667	3,262	29.8	6,000	1,000	0.0177	0.0230	0.077	0.0232±j0.0381	0.0768±j0.6963	13,530	30,280	36,260	544	802	623	
1250	91	20	9	1.228	30	420	65	80	2.646	1,150	842	3,839	31.8	7,500	1,000	0.0141	0.0190	0.084	0.0187±j0.0371	0.0721±j0.6907	17,080	38,220	45,780	615	923	702	
1500	91	24	9	1.343	39	420	65	80	2.779	1,380	1,011	4,370	33.4	9,000	1,000	0.0118	0.0160	0.091	0.0159±j0.0363	0.0692±j0.6864	20,500	45,870	54,930	674	1,028	770	
1/2 Neutral																											
1/0	19	8	14	0.354	20	420	50	55	1.572	97	106	1,001	18.9	633	1,000	0.1680	0.2150	0.037	0.2153±j0.0509	0.2693±j0.7432	2,140	4,800	5,750	160	202	182	
2/0	19	10	14	0.398	20	420	50	55	1.616	122	132	1,087	19.4	799	1,000	0.1330	0.1700	0.040	0.1704±j0.0492	0.2244±j0.7393	2,680	6,000	7,180	181	232	207	
4/0	19	10	12	0.504	20	420	50	80	1.806	195	209	1,415	21.7	1,269	1,000	0.0836	0.1070	0.045	0.1071±j0.0468	0.1611±j0.7287	4,240	9,490	11,360	234	309	268	
250	37	12	12	0.547	20	420	50	80	1.849	230	251	1,532	22.2	1,500	1,000	0.0707	0.0910	0.048	0.0907±j0.0457	0.1447±j0.7258	5,090	11,380	13,630	256	341	293	
350	37	11	10	0.650	20	420	50	80	1.994	322	367	1,876	23.9	2,100	1,000	0.0505	0.0650	0.053	0.0650±j0.0439	0.1189±j0.7184	7,440	16,650	19,940	309	421	353	
500	37	15	10	0.773	20	420	65	80	2.147	460	500	2,299	25.8	3,000	1,000	0.0354	0.0460	0.060	0.0455±j0.0420	0.0994±j0.7110	10,150	22,710	27,200	376	525	430	
750	61	18	9	0.949	27	420	65	80	2.361	690	758	3,010	28.3	4,500	1,000	0.0236	0.0310	0.069	0.0306±j0.0399	0.0843±j0.7019	15,370	34,400	41,200	468	676	536	
1000	61	24	9	1.095	27	420	65	80	2.507	920	1,011	3,613	30.1	6,000	1,000	0.0177	0.0230	0.077	0.0232±j0.0383	0.0768±j0.6959	20,500	45,870	54,930	545	804	623	
1250	91	24	8	1.228	30	420	65	80	2.676	1,150	1,268	4,271	32.1	7,500	1,000	0.0141	0.0190	0.084	0.0187±j0.0373	0.0721±j0.6902	25,730	57,570	68,940	616	926	703	
1500	91	28	8	1.343	39	420	65	80	2.809	1,380	1,480	4,844	33.7	9,000	1,000	0.0118	0.0160	0.091	0.0159±j0.0365	0.0692±j0.6860	30,010	67,160	80,430	675	1,032	771	

35kV MV-90 AL TR-XLPE 133% INS LLDPE - Flat

Weights & Measurements															Electrical and Engineering Data - Flat - Single Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 90°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Ω/kft
2/3 Neutral																											
1/0	19	11	14	0.354	20	420	50	55	1.572	97	145	1,037	18.9	633	1,000	0.1680	0.2150	0.037	0.2153±j0.0509	0.2693±j0.7432	2,950	6,600	7,900	160	202	182	
2/0	19	21	16	0.398	20	420	50	55	1.590	122	174	1,096	19.1	799	1,000	0.1330	0.1700	0.040	0.1704±j0.0489	0.2244±j0.7401	3,520	7,890	9,450	181	231	207	
4/0	19	14	12	0.504	20	420	50	80	1.806	195	293	1,471	21.7	1,269	1,000	0.0836	0.1070	0.045	0.1071±j0.0468	0.1611±j0.7287	5,930	13,280	15,900	234	309	268	
250	37	16	12	0.547	20	420	50	80	1.849	230	334	1,607	22.2	1,500	1,000	0.0707	0.0910	0.048	0.0907±j0.0457	0.1447±j0.7258	6,780	15,180	18,170	256	341	293	
350	37	22	12	0.650	20	420	50	80	1.952	322	460	1,903	23.4	2,100	1,000	0.0505	0.0650	0.053	0.0650±j0.0434	0.1189±j0.7194	9,330	20,870	24,990	308	418	352	
500	37	20	10	0.773	20	420	65	80	2.147	460	667	2,449	25.8	3,000	1,000	0.0354	0.0460	0.060	0.0455±j0.0420	0.0994±j0.7110	13,530	30,280	36,260	376	525	430	
750	61	24	9	0.949	27	420	65	80	2.361	690	1,011	3,237	28.3	4,500	1,000	0.0236	0.0310	0.069	0.0306±j0.0399	0.0843±j0.7019	20,500	45,870	54,930	468	676	536	
1000	61	25	8	1.095	27	420	65	80	2.537	920	1,321	3,939	30.4	6,000	1,000	0.0177	0.0230	0.077	0.0232±j0.0385	0.0768±j0.6953	26,800	59,970	71,810	546	807	624	
Full Neutral																											
1/0	19	10	12	0.354	20	420	50	55	1.606	97	209	1,129	19.3	633	1,000	0.1680	0.2150	0.037	0.2153±j0.0513	0.2693±j0.7422	4,240	9,490	11,360	160	203	183	
2/0	19	13	12	0.398	20	420	50	55	1.650	122	272	1,249	19.8	799	1,000	0.1330	0.1700	0.040	0.1704±j0.0496	0.2244±j0.7383	5,510	12,330	14,770	182	233	208	
4/0	19	13	10	0.504	20	420	50	80	1.848	195	434	1,669	22.2	1,269	1,000	0.0836	0.1070	0.045	0.1071±j0.0472	0.1611±j0.7277	8,800	19,680	23,570	235	310	268	
250	37	15	10	0.547	20	420	50	80	1.891	230	500	1,810	22.7	1,500	1,000	0.0707	0.0910	0.048	0.0907±j0.0461	0.1447±j0.7247	10,150	22,710	27,200	257	343	294	
350	37	21	10	0.650	20	420	50	80	1.994	322	701	2,176	23.9	2,100	1,000	0.0505	0.0650	0.053	0.0650±j0.0439	0.1189±j0.7184	14,210	31,790	38,080	309	421	353	
500	37	24	9	0.773	20	420	65	80	2.171	460	1,011	2,794	26.1	3,000	1,000	0.0354	0.0460	0.060	0.0455±j0.0422	0.0994±j0.7105	20,500	45,870	54,930	376	527	430	
750	61	28	8	0.949	27	420	65	80	2.391	690	1,480	3,703	28.7	4,500	1,000	0.0236	0.0310	0.069	0.0306±j0.0401	0.0843±j0.7013	30,010	67,160	80,430	469	678	536	

- All dimensions and weights are nominal and subject to normal manufacturing tolerances.
- Ampacities: In Duct: Buried in duct, earth RHO 100, 25°C ambient, 100% load factor, 39.4" burial depth, and neutral wires bonded at a single point. Free Air: 40°C ambient, 100% load factor and neutral wires bonded at a single point. Direct Burial: Ambient temperature 25°C and 39.4" burial depth, earth RHO 100, and neutral wires bonded at a single point.
- Impedance: Calculations are based on flat formation / earth loop / conductor temperature of 90°C.
- Jacket thickness is measured from the outermost point of the concentric neutral wire to the outermost point of the jacket.
- Other designs available upon request.
- The above parameters are for reference only, based on the technical requirements.
- Shield Short-Circuit Current for 0.267 at 250°C and 0.267 at 350°C for reference only. Contact Voltage for capacity ratings.

35kV MV-90 AL TR-XLPE 133% INS LLDPE - Trefoil

Weights & Measurements															Electrical and Engineering Data - Trefoil - Both Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 90°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Ω/kft
1/12 Neutral																											
1/0	19	6	16	0.354	20	420	50	55	1.546	97	50	923	18.6	633	1,000	0.1680	0.2150	0.037	0.2159±j0.0555	1.0559±j0.0444	1,010	2,250	2,700	161	196	184	
2/0	19	6	16	0.398	20	420	50	55	1.590	122	50	984	19.1	799	1,000	0.1330	0.1700	0.040	0.1710±j0.0535	1.0110±j0.0425	1,010	2,250	2,700	182	225	209	
4/0	19	6	16	0.504	20	420	50	80	1.746	195	50	1,200	21.0	1,269	1,000	0.0836	0.1070	0.045	0.1078±j0.0502	0.9478±j0.0388	1,010	2,250	2,700	235	298	270	
250	37	6	16	0.547	20	420	50	80	1.789	230	50	1,278	21.5	1,500	1,000	0.0707	0.0910	0.048	0.0914±j0.0489	0.9314±j0.0376	1,010	2,250	2,700	257	329	296	
350	37	7	16	0.650	20	420	50	80	1.892	322	58	1,464	22.7	2,100	1,000	0.0505	0.0650	0.053	0.0658±j0.0462	0.7856±j0.0343	1,170	2,630	3,150	309	403	355	
500	37	7	14	0.773	20	420	65	80	2.071	460	92	1,825	24.9	3,000	1,000	0.0354	0.0460	0.060	0.0468±j0.0443	0.4988±j0.0324	1,880	4,200	5,030	375	503	431	
750	61	10	14	0.949	27	420	65	80	2.261	690	132	2,290	27.1	4,500	1,000	0.0236	0.0310	0.069	0.0325±j0.0415	0.3480±j0.0284	2,680	6,000	7,180	464	642	533	
1000	61	13	14	1.095	27	420	65	80	2.407	920	172	2,692	28.9	6,000	1,000	0.0177	0.0230	0.077	0.0256±j0.0396	0.2674±j0.0258	3,480	7,800	9,340	535	757	615	
1250	91	16	14	1.228	30	420	65	80	2.546	1,150	211	3,095	30.6	7,500	1,000	0.0141	0.0190	0.084	0.0216±j0.0381	0.2172±j0.0240	4,290	9,590	11,490	596	861	685	
1500	91	19	14	1.343	39	420	65	80	2.679	1,380	251	3,502	32.2	9,000	1,000	0.0118	0.0160	0.091	0.0192±j0.0371	0.1831±j0.0227	5,090	11,390	13,640	645	948	741	
1/6 Neutral																											
1/0	19	6	16	0.354	20	420	50	55	1.546	97	50	923	18.6	633	1,000	0.1680	0.2150	0.037	0.2159±j0.0555	1.0559±j0.0444	1,010	2,250	2,700	161	196	184	
2/0	19	6	16	0.398	20	420	50	55	1.590	122	50	984	19.1	799	1,000	0.1330	0.1700	0.040	0.1710±j0.0535	1.0110±j0.0425	1,010	2,250	2,700	182	225	209	
4/0	19	9	16	0.504	20	420	50	80	1.746	195	74	1,222	21.0	1,269	1,000	0.0836	0.1070	0.045	0.1081±j0.0502	0.6676±j0.0369	1,510	3,380	4,050	235	298	270	
250	37	10	16	0.547	20	420	50	80	1.789	230	83	1,307	21.5	1,500	1,000	0.0707	0.0910	0.048	0.0919±j0.0488	0.5952±j0.0352	1,680	3,760	4,500	257	329	295	
350	37	9	14	0.650	20	420	50	80	1.918	322	119	1,554	23.0	2,100	1,000	0.0505	0.0650	0.053	0.0666±j0.0464	0.4175±j0.0332	2,410	5,400	6,460	308	404	354	
500	37	8	12	0.773	20	420	65	80	2.105	460	167	1,939	25.3	3,000	1,000	0.0354	0.0460	0.060	0.0478±j0.0445	0.2950±j0.0318	3,390	7,590	9,090	374	503	429	
750	61	19	14	0.949	27	420	65	80	2.261	690	251	2,397	27.1	4,500	1,000	0.0236	0.0310	0.069	0.0340±j0.0412	0.1977±j0.0263	5,090	11,390	13,640	458	635	527	
1000	61	16	12	1.095	27	420	65	80	2.441	920	334	2,892	29.3	6,000	1,000	0.0177	0.0230	0.077	0.0276±j0.0393	0.1481±j0.0252	6,780	15,180	18,170	524	747	603	
1250	91	20	12	1.228	30	420	65	80	2.580	1,150	418	3,338	31.0	7,500	1,000	0.0141	0.0190	0.084	0.0240±j0.0375	0.1187±j0.0233	8,480	18,970	22,720	577	843	664	
1500	91	24	12	1.343	39	420	65	80	2.713	1,380	502	3,788	32.6	9,000	1,000	0.0118	0.0160	0.091	0.0220±j0.0362	0.0992±j0.0222	10,170	22,760	27,260	618	920	711	

35kV MV-90 AL TR-XLPE 133% INS LLDPE - Trefoil

Weights & Measurements															Electrical and Engineering Data - Trefoil - Both Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 90°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		AWG MCM	No. Wires	Size	In.	Mils				In.	lbs./kft					In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Ω/kft
1/3 Neutral																											
1/0	19	6	14	0.354	20	420	50	55	1.572	97	79	977	18.9	633	1,000	0.1680	0.2150	0.037	0.2163±j0.0559	0.7440±j0.0444	1,610	3,600	4,310	161	197	184	
2/0	19	11	16	0.398	20	420	50	55	1.590	122	91	1,021	19.1	799	1,000	0.1330	0.1700	0.040	0.1714±j0.0538	0.6990±j0.0425	1,850	4,130	4,950	183	226	210	
4/0	19	11	14	0.504	20	420	50	80	1.772	195	145	1,318	21.3	1,269	1,000	0.0836	0.1070	0.045	0.1091±j0.0504	0.3955±j0.0361	2,950	6,600	7,900	235	298	270	
250	37	13	14	0.547	20	420	50	80	1.815	230	172	1,420	21.8	1,500	1,000	0.0707	0.0910	0.048	0.0931±j0.0490	0.3348±j0.0342	3,480	7,800	9,340	257	329	295	
350	37	18	14	0.650	20	420	50	80	1.918	322	238	1,660	23.0	2,100	1,000	0.0505	0.0650	0.053	0.0682±j0.0461	0.2413±j0.0308	4,820	10,790	12,930	306	402	352	
500	37	16	12	0.773	20	420	65	80	2.105	460	334	2,089	25.3	3,000	1,000	0.0354	0.0460	0.060	0.0499±j0.0439	0.1703±j0.0292	6,780	15,180	18,170	369	498	424	
750	61	15	10	0.949	27	420	65	80	2.337	690	500	2,739	28.0	4,500	1,000	0.0236	0.0310	0.069	0.0368±j0.0407	0.1144±j0.0270	10,150	22,710	27,200	449	629	516	
1000	61	20	10	1.095	27	420	65	80	2.483	920	667	3,262	29.8	6,000	1,000	0.0177	0.0230	0.077	0.0309±j0.0377	0.0861±j0.0245	13,530	30,280	36,260	505	729	582	
1250	91	20	9	1.228	30	420	65	80	2.646	1,150	842	3,839	31.8	7,500	1,000	0.0141	0.0190	0.084	0.0277±j0.0352	0.0686±j0.0233	17,080	38,220	45,780	549	815	633	
1500	91	24	9	1.343	39	420	65	80	2.779	1,380	1,011	4,370	33.4	9,000	1,000	0.0118	0.0160	0.091	0.0258±j0.0329	0.0575±j0.0222	20,500	45,870	54,930	582	881	670	
1/2 Neutral																											
1/0	19	8	14	0.354	20	420	50	55	1.572	97	106	1,001	18.9	633	1,000	0.1680	0.2150	0.037	0.2166±j0.0558	0.6118±j0.0430	2,140	4,800	5,750	161	197	184	
2/0	19	10	14	0.398	20	420	50	55	1.616	122	132	1,087	19.4	799	1,000	0.1330	0.1700	0.040	0.1721±j0.0538	0.4876±j0.0402	2,680	6,000	7,180	182	226	209	
4/0	19	10	12	0.504	20	420	50	80	1.806	195	209	1,415	21.7	1,269	1,000	0.0836	0.1070	0.045	0.1099±j0.0507	0.3066±j0.0364	4,240	9,490	11,360	235	299	269	
250	37	12	12	0.547	20	420	50	80	1.849	230	251	1,532	22.2	1,500	1,000	0.0707	0.0910	0.048	0.0941±j0.0492	0.2570±j0.0345	5,090	11,380	13,630	256	330	294	
350	37	11	10	0.650	20	420	50	80	1.994	322	367	1,876	23.9	2,100	1,000	0.0505	0.0650	0.053	0.0697±j0.0465	0.1791±j0.0324	7,440	16,650	19,940	306	404	351	
500	37	15	10	0.773	20	420	65	80	2.147	460	500	2,299	25.8	3,000	1,000	0.0354	0.0460	0.060	0.0517±j0.0434	0.1293±j0.0294	10,150	22,710	27,200	366	497	421	
750	61	18	9	0.949	27	420	65	80	2.361	690	758	3,010	28.3	4,500	1,000	0.0236	0.0310	0.069	0.0391±j0.0391	0.0860±j0.0265	15,370	34,400	41,200	440	621	506	
1000	61	24	9	1.095	27	420	65	80	2.507	920	1,011	3,613	30.1	6,000	1,000	0.0177	0.0230	0.077	0.0333±j0.0352	0.0649±j0.0241	20,500	45,870	54,930	491	715	566	
1250	91	24	8	1.228	30	420	65	80	2.676	1,150	1,268	4,271	32.1	7,500	1,000	0.0141	0.0190	0.084	0.0297±j0.0319	0.0518±j0.0229	25,730	57,570	68,940	532	796	613	
1500	91	28	8	1.343	39	420	65	80	2.809	1,380	1,480	4,844	33.7	9,000	1,000	0.0118	0.0160	0.091	0.0273±j0.0294	0.0443±j0.0218	30,010	67,160	80,430	564	862	650	

35kV MV-90 AL TR-XLPE 133% INS LLDPE - Trefoil

Weights & Measurements															Electrical and Engineering Data - Trefoil - Both Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness			O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities				
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu				Total	DC@ 20°C				AC@ 90°C	1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils			In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft	Ω/kft	Amps	
2/3 Neutral																											
1/0	19	11	14	0.354	20	420	50	55	1.572	97	145	1,037	18.9	633	1,000	0.1680	0.2150	0.037	0.2171±j0.0557	0.5036±j0.0417	2,950	6,600	7,900	161	197	184	
2/0	19	21	16	0.398	20	420	50	55	1.590	122	174	1,096	19.1	799	1,000	0.1330	0.1700	0.040	0.1726±j0.0533	0.4105±j0.0378	3,520	7,890	9,450	182	225	209	
4/0	19	14	12	0.504	20	420	50	80	1.806	195	293	1,471	21.7	1,269	1,000	0.0836	0.1070	0.045	0.1107±j0.0504	0.2606±j0.0355	5,930	13,280	15,900	234	299	269	
250	37	16	12	0.547	20	420	50	80	1.849	230	334	1,607	22.2	1,500	1,000	0.0707	0.0910	0.048	0.0951±j0.0488	0.2154±j0.0336	6,780	15,180	18,170	256	329	294	
350	37	22	12	0.650	20	420	50	80	1.952	322	460	1,903	23.4	2,100	1,000	0.0505	0.0650	0.053	0.0708±j0.0454	0.1557±j0.0303	9,330	20,870	24,990	303	400	349	
500	37	20	10	0.773	20	420	65	80	2.147	460	667	2,449	25.8	3,000	1,000	0.0354	0.0460	0.060	0.0533±j0.0423	0.1084±j0.0286	13,530	30,280	36,260	362	493	417	
750	61	24	9	0.949	27	420	65	80	2.361	690	1,011	3,237	28.3	4,500	1,000	0.0236	0.0310	0.069	0.0407±j0.0370	0.0722±j0.0257	20,500	45,870	54,930	433	613	498	
1000	61	25	8	1.095	27	420	65	80	2.537	920	1,321	3,939	30.4	6,000	1,000	0.0177	0.0230	0.077	0.0344±j0.0329	0.0550±j0.0240	26,800	59,970	71,810	483	707	557	
Full Neutral																											
1/0	19	10	12	0.354	20	420	50	55	1.606	97	209	1,129	19.3	633	1,000	0.1680	0.2150	0.037	0.2179±j0.0561	0.4147±j0.0421	4,240	9,490	11,360	161	198	185	
2/0	19	13	12	0.398	20	420	50	55	1.650	122	272	1,249	19.8	799	1,000	0.1330	0.1700	0.040	0.1738±j0.0538	0.3238±j0.0392	5,510	12,330	14,770	182	227	209	
4/0	19	13	10	0.504	20	420	50	80	1.848	195	434	1,669	22.2	1,269	1,000	0.0836	0.1070	0.045	0.1127±j0.0501	0.2036±j0.0355	8,800	19,680	23,570	234	300	268	
250	37	15	10	0.547	20	420	50	80	1.891	230	500	1,810	22.7	1,500	1,000	0.0707	0.0910	0.048	0.0970±j0.0484	0.1744±j0.0338	10,150	22,710	27,200	255	330	293	
350	37	21	10	0.650	20	420	50	80	1.994	322	701	2,176	23.9	2,100	1,000	0.0505	0.0650	0.053	0.0731±j0.0442	0.1248±j0.0304	14,210	31,790	38,080	301	399	346	
500	37	24	9	0.773	20	420	65	80	2.171	460	1,011	2,794	26.1	3,000	1,000	0.0354	0.0460	0.060	0.0557±j0.0397	0.0871±j0.0281	20,500	45,870	54,930	357	489	411	
750	61	28	8	0.949	27	420	65	80	2.391	690	1,480	3,703	28.7	4,500	1,000	0.0236	0.0310	0.069	0.0422±j0.0335	0.0589±j0.0254	30,010	67,160	80,430	425	607	490	

- All dimensions and weights are nominal and subject to normal manufacturing tolerances.
- Ampacities: In Duct: Buried in duct, earth RHO 100, 25°C ambient, 100% load factor, 39.4" burial depth, and neutral wires bonded at both point. Free Air: 40°C ambient, 100% load factor and neutral wires bonded at both point. Direct Burial: Ambient temperature 25°C and 39.4" burial depth, earth RHO 100, and neutral wires bonded at both point.
- Impedance: Calculations are based on trefoil formation / shield loop / conductor temperature of 90°C.
- Jacket thickness is measured from the outermost point of the concentric neutral wire to the outermost point of the jacket.
- Other designs available upon request.
- The above parameters are for reference only, based on the technical requirements.
- Shield Short-Circuit Current for 0.267 at 250°C and 0.267 at 350°C for reference only. Contact Voltage for capacity ratings.

35kV MV-90 AL TR-XLPE 133% INS LLDPE - Flat

Weights & Measurements															Electrical and Engineering Data - Flat - Both Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 90°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Amps
1/12 Neutral																											
1/0	19	6	16	0.354	20	420	50	55	1.546	97	50	923	18.6	633	1,000	0.1680	0.2150	0.037	0.2162±j0.0608	1.0559±j0.0444	1,010	2,250	2,700	159	201	182	
2/0	19	6	16	0.398	20	420	50	55	1.590	122	50	984	19.1	799	1,000	0.1330	0.1700	0.040	0.1713±j0.0588	1.0110±j0.0425	1,010	2,250	2,700	180	231	206	
4/0	19	6	16	0.504	20	420	50	80	1.746	195	50	1,200	21.0	1,269	1,000	0.0836	0.1070	0.045	0.1081±j0.0555	0.9478±j0.0388	1,010	2,250	2,700	232	305	266	
250	37	6	16	0.547	20	420	50	80	1.789	230	50	1,278	21.5	1,500	1,000	0.0707	0.0910	0.048	0.0918±j0.0541	0.9314±j0.0376	1,010	2,250	2,700	254	337	291	
350	37	7	16	0.650	20	420	50	80	1.892	322	58	1,464	22.7	2,100	1,000	0.0505	0.0650	0.053	0.0662±j0.0515	0.7856±j0.0343	1,170	2,630	3,150	304	412	348	
500	37	7	14	0.773	20	420	65	80	2.071	460	92	1,825	24.9	3,000	1,000	0.0354	0.0460	0.060	0.0475±j0.0495	0.4988±j0.0324	1,880	4,200	5,030	366	512	420	
750	61	10	14	0.949	27	420	65	80	2.261	690	132	2,290	27.1	4,500	1,000	0.0236	0.0310	0.069	0.0333±j0.0467	0.3480±j0.0284	2,680	6,000	7,180	447	648	512	
1000	61	13	14	1.095	27	420	65	80	2.407	920	172	2,692	28.9	6,000	1,000	0.0177	0.0230	0.077	0.0267±j0.0447	0.2674±j0.0258	3,480	7,800	9,340	506	755	581	
1250	91	16	14	1.228	30	420	65	80	2.546	1,150	211	3,095	30.6	7,500	1,000	0.0141	0.0190	0.084	0.0229±j0.0431	0.2172±j0.0240	4,290	9,590	11,490	553	846	634	
1500	91	19	14	1.343	39	420	65	80	2.679	1,380	251	3,502	32.2	9,000	1,000	0.0118	0.0160	0.091	0.0208±j0.0420	0.1831±j0.0227	5,090	11,390	13,640	585	918	672	
1/6 Neutral																											
1/0	19	6	16	0.354	20	420	50	55	1.546	97	50	923	18.6	633	1,000	0.1680	0.2150	0.037	0.2162±j0.0608	1.0559±j0.0444	1,010	2,250	2,700	159	201	182	
2/0	19	6	16	0.398	20	420	50	55	1.590	122	50	984	19.1	799	1,000	0.1330	0.1700	0.040	0.1713±j0.0588	1.0110±j0.0425	1,010	2,250	2,700	180	231	206	
4/0	19	9	16	0.504	20	420	50	80	1.746	195	74	1,222	21.0	1,269	1,000	0.0836	0.1070	0.045	0.1087±j0.0554	0.6676±j0.0369	1,510	3,380	4,050	232	304	265	
250	37	10	16	0.547	20	420	50	80	1.789	230	83	1,307	21.5	1,500	1,000	0.0707	0.0910	0.048	0.0924±j0.0541	0.5952±j0.0352	1,680	3,760	4,500	253	336	290	
350	37	9	14	0.650	20	420	50	80	1.918	322	119	1,554	23.0	2,100	1,000	0.0505	0.0650	0.053	0.0674±j0.0516	0.4175±j0.0332	2,410	5,400	6,460	302	411	346	
500	37	8	12	0.773	20	420	65	80	2.105	460	167	1,939	25.3	3,000	1,000	0.0354	0.0460	0.060	0.0489±j0.0496	0.2950±j0.0318	3,390	7,590	9,090	361	509	414	
750	61	19	14	0.949	27	420	65	80	2.261	690	251	2,397	27.1	4,500	1,000	0.0236	0.0310	0.069	0.0355±j0.0461	0.1977±j0.0263	5,090	11,390	13,640	432	632	496	
1000	61	16	12	1.095	27	420	65	80	2.441	920	334	2,892	29.3	6,000	1,000	0.0177	0.0230	0.077	0.0296±j0.0440	0.1481±j0.0252	6,780	15,180	18,170	479	726	551	
1250	91	20	12	1.228	30	420	65	80	2.580	1,150	418	3,338	31.0	7,500	1,000	0.0141	0.0190	0.084	0.0264±j0.0419	0.1187±j0.0233	8,480	18,970	22,720	512	799	588	
1500	91	24	12	1.343	39	420	65	80	2.713	1,380	502	3,788	32.6	9,000	1,000	0.0118	0.0160	0.091	0.0248±j0.0402	0.0992±j0.0222	10,170	22,760	27,260	532	853	612	

35kV MV-90 AL TR-XLPE 133% INS LLDPE - Flat

Weights & Measurements															Electrical and Engineering Data - Flat - Both Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 90°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Ω/kft
1/3 Neutral																											
1/0	19	6	14	0.354	20	420	50	55	1.572	97	79	977	18.9	633	1,000	0.1680	0.2150	0.037	0.2168±j0.0611	0.7440±j0.0444	1,610	3,600	4,310	159	201	182	
2/0	19	11	16	0.398	20	420	50	55	1.590	122	91	1,021	19.1	799	1,000	0.1330	0.1700	0.040	0.1719±j0.0591	0.6990±j0.0425	1,850	4,130	4,950	180	231	206	
4/0	19	11	14	0.504	20	420	50	80	1.772	195	145	1,318	21.3	1,269	1,000	0.0836	0.1070	0.045	0.1101±j0.0556	0.3955±j0.0361	2,950	6,600	7,900	230	304	264	
250	37	13	14	0.547	20	420	50	80	1.815	230	172	1,420	21.8	1,500	1,000	0.0707	0.0910	0.048	0.0942±j0.0541	0.3348±j0.0342	3,480	7,800	9,340	251	335	288	
350	37	18	14	0.650	20	420	50	80	1.918	322	238	1,660	23.0	2,100	1,000	0.0505	0.0650	0.053	0.0697±j0.0511	0.2413±j0.0308	4,820	10,790	12,930	296	406	340	
500	37	16	12	0.773	20	420	65	80	2.105	460	334	2,089	25.3	3,000	1,000	0.0354	0.0460	0.060	0.0519±j0.0486	0.1703±j0.0292	6,780	15,180	18,170	350	497	402	
750	61	15	10	0.949	27	420	65	80	2.337	690	500	2,739	28.0	4,500	1,000	0.0236	0.0310	0.069	0.0395±j0.0447	0.1144±j0.0270	10,150	22,710	27,200	408	609	469	
1000	61	20	10	1.095	27	420	65	80	2.483	920	667	3,262	29.8	6,000	1,000	0.0177	0.0230	0.077	0.0341±j0.0409	0.0861±j0.0245	13,530	30,280	36,260	443	686	510	
1250	91	20	9	1.228	30	420	65	80	2.646	1,150	842	3,839	31.8	7,500	1,000	0.0141	0.0190	0.084	0.0311±j0.0376	0.0686±j0.0233	17,080	38,220	45,780	467	747	538	
1500	91	24	9	1.343	39	420	65	80	2.779	1,380	1,011	4,370	33.4	9,000	1,000	0.0118	0.0160	0.091	0.0293±j0.0347	0.0575±j0.0222	20,500	45,870	54,930	485	795	558	
1/2 Neutral																											
1/0	19	8	14	0.354	20	420	50	55	1.572	97	106	1,001	18.9	633	1,000	0.1680	0.2150	0.037	0.2173±j0.0611	0.6118±j0.0430	2,140	4,800	5,750	159	201	182	
2/0	19	10	14	0.398	20	420	50	55	1.616	122	132	1,087	19.4	799	1,000	0.1330	0.1700	0.040	0.1729±j0.0589	0.4876±j0.0402	2,680	6,000	7,180	180	231	206	
4/0	19	10	12	0.504	20	420	50	80	1.806	195	209	1,415	21.7	1,269	1,000	0.0836	0.1070	0.045	0.1113±j0.0557	0.3066±j0.0364	4,240	9,490	11,360	230	304	263	
250	37	12	12	0.547	20	420	50	80	1.849	230	251	1,532	22.2	1,500	1,000	0.0707	0.0910	0.048	0.0957±j0.0541	0.2570±j0.0345	5,090	11,380	13,630	250	335	286	
350	37	11	10	0.650	20	420	50	80	1.994	322	367	1,876	23.9	2,100	1,000	0.0505	0.0650	0.053	0.0719±j0.0510	0.1791±j0.0324	7,440	16,650	19,940	293	405	336	
500	37	15	10	0.773	20	420	65	80	2.147	460	500	2,299	25.8	3,000	1,000	0.0354	0.0460	0.060	0.0545±j0.0474	0.1293±j0.0294	10,150	22,710	27,200	341	490	392	
750	61	18	9	0.949	27	420	65	80	2.361	690	758	3,010	28.3	4,500	1,000	0.0236	0.0310	0.069	0.0424±j0.0419	0.0860±j0.0265	15,370	34,400	41,200	393	593	452	
1000	61	24	9	1.095	27	420	65	80	2.507	920	1,011	3,613	30.1	6,000	1,000	0.0177	0.0230	0.077	0.0367±j0.0369	0.0649±j0.0241	20,500	45,870	54,930	426	666	491	
1250	91	24	8	1.228	30	420	65	80	2.676	1,150	1,268	4,271	32.1	7,500	1,000	0.0141	0.0190	0.084	0.0329±j0.0327	0.0518±j0.0229	25,730	57,570	68,940	453	731	522	
1500	91	28	8	1.343	39	420	65	80	2.809	1,380	1,480	4,844	33.7	9,000	1,000	0.0118	0.0160	0.091	0.0302±j0.0297	0.0443±j0.0218	30,010	67,160	80,430	476	785	548	

35kV MV-90 AL TR-XLPE 133% INS LLDPE - Flat

Weights & Measurements															Electrical and Engineering Data - Flat - Both Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 90°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft	Ω/kft	Amps
2/3 Neutral																											
1/0	19	11	14	0.354	20	420	50	55	1.572	97	145	1,037	18.9	633	1,000	0.1680	0.2150	0.037	0.2181±j0.0609	0.5036±j0.0417	2,950	6,600	7,900	159	201	181	
2/0	19	21	16	0.398	20	420	50	55	1.590	122	174	1,096	19.1	799	1,000	0.1330	0.1700	0.040	0.1737±j0.0584	0.4105±j0.0378	3,520	7,890	9,450	179	229	205	
4/0	19	14	12	0.504	20	420	50	80	1.806	195	293	1,471	21.7	1,269	1,000	0.0836	0.1070	0.045	0.1125±j0.0553	0.2606±j0.0355	5,930	13,280	15,900	228	303	262	
250	37	16	12	0.547	20	420	50	80	1.849	230	334	1,607	22.2	1,500	1,000	0.0707	0.0910	0.048	0.0972±j0.0534	0.2154±j0.0336	6,780	15,180	18,170	247	333	284	
350	37	22	12	0.650	20	420	50	80	1.952	322	460	1,903	23.4	2,100	1,000	0.0505	0.0650	0.053	0.0734±j0.0496	0.1557±j0.0303	9,330	20,870	24,990	289	399	331	
500	37	20	10	0.773	20	420	65	80	2.147	460	667	2,449	25.8	3,000	1,000	0.0354	0.0460	0.060	0.0565±j0.0455	0.1084±j0.0286	13,530	30,280	36,260	334	482	384	
750	61	24	9	0.949	27	420	65	80	2.361	690	1,011	3,237	28.3	4,500	1,000	0.0236	0.0310	0.069	0.0441±j0.0387	0.0722±j0.0257	20,500	45,870	54,930	384	583	442	
1000	61	25	8	1.095	27	420	65	80	2.537	920	1,321	3,939	30.4	6,000	1,000	0.0177	0.0230	0.077	0.0376±j0.0335	0.0550±j0.0240	26,800	59,970	71,810	421	661	485	
Full Neutral																											
1/0	19	10	12	0.354	20	420	50	55	1.606	97	209	1,129	19.3	633	1,000	0.1680	0.2150	0.037	0.2193±j0.0611	0.4147±j0.0421	4,240	9,490	11,360	159	202	181	
2/0	19	13	12	0.398	20	420	50	55	1.650	122	272	1,249	19.8	799	1,000	0.1330	0.1700	0.040	0.1755±j0.0587	0.3238±j0.0392	5,510	12,330	14,770	179	231	205	
4/0	19	13	10	0.504	20	420	50	80	1.848	195	434	1,669	22.2	1,269	1,000	0.0836	0.1070	0.045	0.1152±j0.0544	0.2036±j0.0355	8,800	19,680	23,570	226	302	259	
250	37	15	10	0.547	20	420	50	80	1.891	230	500	1,810	22.7	1,500	1,000	0.0707	0.0910	0.048	0.0997±j0.0523	0.1744±j0.0338	10,150	22,710	27,200	245	331	280	
350	37	21	10	0.650	20	420	50	80	1.994	322	701	2,176	23.9	2,100	1,000	0.0505	0.0650	0.053	0.0764±j0.0472	0.1248±j0.0304	14,210	31,790	38,080	283	395	325	
500	37	24	9	0.773	20	420	65	80	2.171	460	1,011	2,794	26.1	3,000	1,000	0.0354	0.0460	0.060	0.0591±j0.0414	0.0871±j0.0281	20,500	45,870	54,930	327	475	376	
750	61	28	8	0.949	27	420	65	80	2.391	690	1,480	3,703	28.7	4,500	1,000	0.0236	0.0310	0.069	0.0450±j0.0337	0.0589±j0.0254	30,010	67,160	80,430	380	579	438	

- All dimensions and weights are nominal and subject to normal manufacturing tolerances.
- Ampacities: In Duct: Buried in duct, earth RHO 100, 25°C ambient, 100% load factor, 39.4" burial depth, and neutral wires bonded at both point. Free Air: 40°C ambient, 100% load factor and neutral wires bonded at both point. Direct Burial: Ambient temperature 25°C and 39.4" burial depth, earth RHO 100, and neutral wires bonded at both point.
- Impedance: Calculations are based on flat formation / shield loop / conductor temperature of 90°C.
- Jacket thickness is measured from the outermost point of the concentric neutral wire to the outermost point of the jacket.
- Other designs available upon request.
- The above parameters are for reference only, based on the technical requirements.
- Shield Short-Circuit Current for 0.267 at 250°C and 0.267 at 350°C for reference only. Contact Voltage for capacity ratings.

Medium Voltage Cable

35kV MV-105 AL TR-XLPE 100% INS XLPE

✂ Construction

- Conductor: 1/0 AWG - 1500kcmil Class B compressed lay stranded 1350-H19 aluminum
- Conductor Shield: Extruded semi-conducting thermoset polymeric stress control layer
- Insulation: Extruded tree-retardant cross-linked polyethylene
- Insulation Shield: Extruded semi-conducting thermoset layer, clean and free stripping from insulation
- Concentric Neutral: Helically applied, annealed, solid bare copper wires
- Jacket: Black with 3 red stripes at 120°, non-conducting, sunlight resistant, cross-linked polyethylene jacket extruded to fill spaces between neutral wires

🏆 Standards

- UL1072 Medium Voltage Cable
- ANSI/ICEA S-94-649
- ANSI/ICEA T-27-581
- ANSI/ICEA T-34-664
- ANSI/ICEA P-45-482
- AEIC CS-8
- RUS U-1



⚙ Applications

- Primarily underground distribution
- Wet or dry locations, direct burial, duct, and where exposed to sunlight
- 35kV or less
- Conductor temperatures not to exceed 105°C for normal operation
- Insulation level: 100% Insulation level

☰ Options

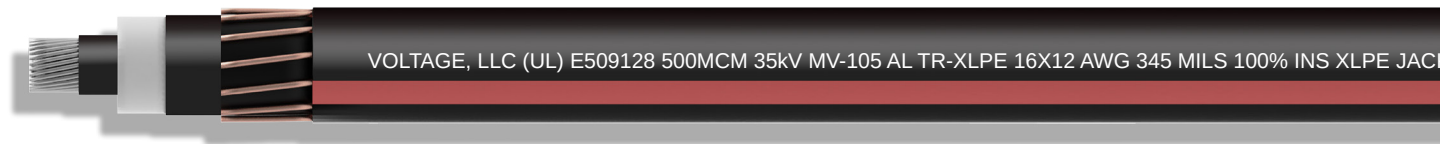
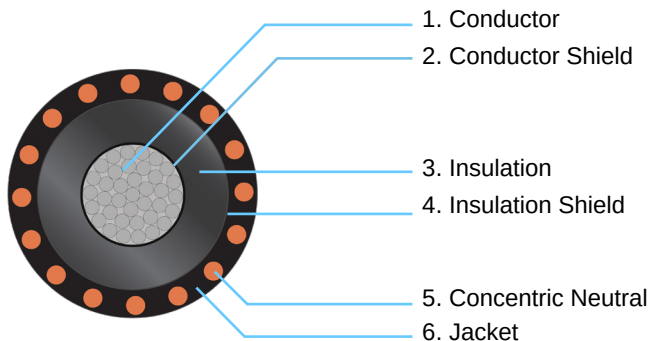
- EPR Insulation
- LLDPE jacket
- TYPE MV-90
- Copper tape screen
- Different concentric neutral levels
- Other voltages available
- Other insulation levels

📦 Packaging

- Material cut to length
- Shipped on steel reels
- Triplex or parallel packaging available

✂ Sample Print

- Interval imprints with production date, time, cable type, sequential length in 2-foot increments



35kV MV-105 AL TR-XLPE 100% INS XLPE - Trefoil

Weights & Measurements															Electrical and Engineering Data - Trefoil - Single Point Impedance											
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities		
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 105°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial
		AWG MCM	No. Wires	Size	In.	Mils				In.	lbs./kft					In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft	
1/12 Neutral																										
1/0	19	6	16	0.354	20	345	50	55	1.396	97	50	776	16.8	633	1,000	0.1680	0.2230	0.042	0.2255±j0.0575	0.2795±j0.7595	930	2,130	2,600	174	222	201
2/0	19	6	16	0.398	20	345	50	55	1.440	122	50	833	17.3	799	1,000	0.1330	0.1770	0.045	0.1785±j0.0559	0.2325±j0.7554	930	2,130	2,600	197	255	228
3/0	19	6	16	0.449	20	345	50	55	1.491	154	50	896	17.9	1,007	1,000	0.1050	0.1410	0.048	0.1408±j0.0492	0.1949±j0.7510	930	2,130	2,600	226	294	260
4/0	19	6	16	0.504	20	345	50	55	1.546	195	50	981	18.6	1,269	1,000	0.0836	0.1110	0.052	0.1122±j0.0527	0.1662±j0.7467	930	2,130	2,600	254	338	294
250	37	6	16	0.547	20	345	50	55	1.589	230	50	1,053	19.1	1,500	1,000	0.0707	0.0955	0.055	0.0951±j0.0516	0.1490±j0.7435	930	2,130	2,600	278	373	322
350	37	7	16	0.650	20	345	50	80	1.742	322	58	1,284	20.9	2,100	1,000	0.0505	0.0680	0.061	0.0681±j0.0501	0.1220±j0.7354	1,090	2,480	3,030	335	459	387
500	37	7	14	0.773	20	345	50	80	1.891	460	92	1,578	22.7	3,000	1,000	0.0354	0.0474	0.069	0.0477±j0.0484	0.1016±j0.7270	1,740	3,960	4,830	408	576	472
750	61	10	14	0.949	27	345	65	80	2.111	690	132	2,073	25.3	4,500	1,000	0.0236	0.0318	0.081	0.0321±j0.0466	0.0858±j0.7178	2,480	5,660	6,910	509	741	588
1000	61	13	14	1.095	27	345	65	80	2.257	920	172	2,460	27.1	6,000	1,000	0.0177	0.0245	0.090	0.0244±j0.0451	0.0779±j0.7115	3,220	7,360	8,980	593	882	685
1250	91	16	14	1.228	30	345	65	80	2.396	1,150	211	2,850	28.8	7,500	1,000	0.0141	0.0195	0.099	0.0197±j0.0441	0.0730±j0.7061	3,970	9,060	11,050	669	1,014	772
1500	91	19	14	1.343	39	345	65	80	2.529	1,380	251	3,245	30.4	9,000	1,000	0.0118	0.0167	0.107	0.0168±j0.0434	0.0699±j0.7016	4,710	10,760	13,120	734	1,129	846
1/6 Neutral																										
1/0	19	6	16	0.354	20	345	50	55	1.396	97	50	776	16.8	633	1,000	0.1680	0.2230	0.042	0.2255±j0.0575	0.2795±j0.7595	930	2,130	2,600	174	222	201
2/0	19	6	16	0.398	20	345	50	55	1.440	122	50	833	17.3	799	1,000	0.1330	0.1770	0.045	0.1785±j0.0559	0.2325±j0.7554	930	2,130	2,600	197	255	228
3/0	19	7	16	0.449	20	345	50	55	1.491	154	58	903	17.9	1,007	1,000	0.1050	0.1410	0.048	0.1408±j0.0492	0.1949±j0.7510	1,090	2,480	3,030	226	294	260
4/0	19	9	16	0.504	20	345	50	55	1.546	195	74	1,003	18.6	1,269	1,000	0.0836	0.1110	0.052	0.1122±j0.0527	0.1662±j0.7467	1,400	3,190	3,890	254	338	294
250	37	10	16	0.547	20	345	50	55	1.589	230	83	1,083	19.1	1,500	1,000	0.0707	0.0955	0.055	0.0951±j0.0516	0.1490±j0.7435	1,550	3,550	4,330	278	373	322
350	37	9	14	0.650	20	345	50	80	1.768	322	119	1,371	21.2	2,100	1,000	0.0505	0.0680	0.061	0.0681±j0.0504	0.1220±j0.7347	2,230	5,100	6,220	335	461	388
500	37	8	12	0.773	20	345	50	80	1.925	460	167	1,688	23.1	3,000	1,000	0.0354	0.0474	0.069	0.0477±j0.0487	0.1016±j0.7262	3,140	7,170	8,740	410	579	473
750	61	19	14	0.949	27	345	65	80	2.111	690	251	2,180	25.3	4,500	1,000	0.0236	0.0318	0.081	0.0321±j0.0466	0.0858±j0.7178	4,710	10,760	13,120	509	741	588
1000	61	16	12	1.095	27	345	65	80	2.291	920	334	2,658	27.5	6,000	1,000	0.0177	0.0245	0.090	0.0244±j0.0454	0.0779±j0.7108	6,270	14,330	17,480	595	886	686
1250	91	20	12	1.228	30	345	65	80	2.430	1,150	418	3,090	29.2	7,500	1,000	0.0141	0.0195	0.099	0.0197±j0.0443	0.0730±j0.7055	7,840	17,920	21,850	671	1,018	773
1500	91	24	12	1.343	39	345	65	80	2.563	1,380	502	3,527	30.8	9,000	1,000	0.0118	0.0167	0.107	0.0168±j0.0436	0.0699±j0.7010	9,410	21,500	26,220	735	1,135	848

35kV MV-105 AL TR-XLPE 100% INS XLPE - Trefoil

Weights & Measurements															Electrical and Engineering Data - Trefoil - Single Point Impedance											
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities		
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 105°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial
		AWG MCM	No. Wires	Size	In.	Mils				In.	lbs./kft					In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft	
1/3 Neutral																										
1/0	19	6	14	0.354	20	345	50	55	1.422	97	79	828	17.1	633	1,000	0.1680	0.2230	0.042	0.2255±j0.0578	0.2795±j0.7586	1,490	3,400	4,140	174	223	201
2/0	19	11	16	0.398	20	345	50	55	1.440	122	91	870	17.3	799	1,000	0.1330	0.1770	0.045	0.1785±j0.0559	0.2325±j0.7554	1,710	3,900	4,760	197	255	228
3/0	19	14	16	0.449	20	345	50	55	1.491	154	116	955	17.9	1,007	1,000	0.1050	0.1410	0.048	0.1408±j0.0492	0.1949±j0.7510	2,170	4,970	6,060	226	294	260
4/0	19	11	14	0.504	20	345	50	55	1.572	195	145	1,095	18.9	1,269	1,000	0.0836	0.1110	0.052	0.1122±j0.0530	0.1662±j0.7459	2,730	6,230	7,600	255	339	295
250	37	13	14	0.547	20	345	50	55	1.615	230	172	1,192	19.4	1,500	1,000	0.0707	0.0955	0.055	0.0951±j0.0520	0.1490±j0.7428	3,220	7,360	8,980	279	375	323
350	37	18	14	0.650	20	345	50	80	1.768	322	238	1,477	21.2	2,100	1,000	0.0505	0.0680	0.061	0.0681±j0.0504	0.1220±j0.7347	4,460	10,200	12,430	335	461	388
500	37	16	12	0.773	20	345	50	80	1.925	460	334	1,838	23.1	3,000	1,000	0.0354	0.0474	0.069	0.0477±j0.0487	0.1016±j0.7262	6,270	14,330	17,480	410	579	473
750	61	15	10	0.949	27	345	65	80	2.187	690	500	2,514	26.2	4,500	1,000	0.0236	0.0318	0.081	0.0321±j0.0472	0.0858±j0.7162	9,390	21,450	26,160	512	749	591
1000	61	20	10	1.095	27	345	65	80	2.333	920	667	3,023	28.0	6,000	1,000	0.0177	0.0245	0.090	0.0244±j0.0457	0.0779±j0.7100	12,520	28,600	34,870	597	892	688
1250	91	20	9	1.228	30	345	65	80	2.496	1,150	842	3,584	30.0	7,500	1,000	0.0141	0.0195	0.099	0.0197±j0.0448	0.0730±j0.7042	15,800	36,110	44,020	674	1,028	776
1500	91	24	9	1.343	39	345	65	80	2.629	1,380	1,011	4,103	31.6	9,000	1,000	0.0118	0.0167	0.107	0.0168±j0.0441	0.0699±j0.6998	18,960	43,330	52,830	739	1,145	851
1/2 Neutral																										
1/0	19	8	14	0.354	20	345	50	55	1.422	97	106	852	17.1	633	1,000	0.1680	0.2230	0.042	0.2255±j0.0578	0.2795±j0.7586	1,980	4,530	5,530	174	223	201
2/0	19	10	14	0.398	20	345	50	55	1.466	122	132	934	17.6	799	1,000	0.1330	0.1770	0.045	0.1785±j0.0562	0.2325±j0.7546	2,480	5,660	6,910	198	256	228
3/0	19	13	14	0.449	20	345	50	55	1.517	154	172	1,031	18.2	1,007	1,000	0.1050	0.1410	0.048	0.1408±j0.0497	0.1949±j0.7502	3,220	7,360	8,980	226	296	260
4/0	19	10	12	0.504	20	345	50	55	1.606	195	209	1,188	19.3	1,269	1,000	0.0836	0.1110	0.052	0.1122±j0.0534	0.1662±j0.7449	3,920	8,960	10,920	255	341	295
250	37	12	12	0.547	20	345	50	55	1.649	230	251	1,299	19.8	1,500	1,000	0.0707	0.0955	0.055	0.0951±j0.0523	0.1490±j0.7418	4,710	10,750	13,110	280	377	324
350	37	11	10	0.650	20	345	50	80	1.844	322	367	1,686	22.1	2,100	1,000	0.0505	0.0680	0.061	0.0681±j0.0512	0.1220±j0.7328	6,890	15,730	19,180	337	467	390
500	37	15	10	0.773	20	345	50	80	1.967	460	500	2,043	23.6	3,000	1,000	0.0354	0.0474	0.069	0.0477±j0.0491	0.1016±j0.7252	9,390	21,450	26,160	411	583	474
750	61	18	9	0.949	27	345	65	80	2.211	690	758	2,783	26.5	4,500	1,000	0.0236	0.0318	0.081	0.0321±j0.0474	0.0858±j0.7157	14,220	32,490	39,620	513	752	592
1000	61	24	9	1.095	27	345	65	80	2.357	920	1,011	3,372	28.3	6,000	1,000	0.0177	0.0245	0.090	0.0244±j0.0459	0.0779±j0.7095	18,960	43,330	52,830	598	895	689
1250	91	24	8	1.228	30	345	65	80	2.526	1,150	1,268	4,014	30.3	7,500	1,000	0.0141	0.0195	0.099	0.0197±j0.0451	0.0730±j0.7037	23,800	54,380	66,300	675	1,032	778
1500	91	28	8	1.343	39	345	65	80	2.659	1,380	1,480	4,574	31.9	9,000	1,000	0.0118	0.0167	0.107	0.0168±j0.0443	0.0699±j0.6993	27,770	63,440	77,350	741	1,149	852

35kV MV-105 AL TR-XLPE 100% INS XLPE - Trefoil

Weights & Measurements															Electrical and Engineering Data - Trefoil - Single Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 105°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Amps
2/3 Neutral																											
1/0	19	11	14	0.354	20	345	50	55	1.422	97	145	887	17.1	633	1,000	0.1680	0.2230	0.042	0.2255±j0.0578	0.2795±j0.7586	2,730	6,230	7,600	174	223	201	
2/0	19	21	16	0.398	20	345	50	55	1.440	122	174	945	17.3	799	1,000	0.1330	0.1770	0.045	0.1785±j0.0559	0.2325±j0.7554	3,260	7,450	9,080	197	255	228	
3/0	19	17	14	0.449	20	345	50	55	1.517	154	225	1,078	18.2	1,007	1,000	0.1050	0.1410	0.048	0.1408±j0.0497	0.1949±j0.7502	4,210	9,630	11,740	226	296	260	
4/0	19	14	12	0.504	20	345	50	55	1.606	195	293	1,244	19.3	1,269	1,000	0.0836	0.1110	0.052	0.1122±j0.0534	0.1662±j0.7449	5,490	12,540	15,290	255	341	295	
250	37	16	12	0.547	20	345	50	55	1.649	230	334	1,375	19.8	1,500	1,000	0.0707	0.0955	0.055	0.0951±j0.0523	0.1490±j0.7418	6,270	14,330	17,480	280	377	324	
350	37	22	12	0.650	20	345	50	80	1.802	322	460	1,717	21.6	2,100	1,000	0.0505	0.0680	0.061	0.0681±j0.0508	0.1220±j0.7338	8,630	19,710	24,030	336	464	389	
500	37	20	10	0.773	20	345	50	80	1.967	460	667	2,193	23.6	3,000	1,000	0.0354	0.0474	0.069	0.0477±j0.0491	0.1016±j0.7252	12,520	28,600	34,870	411	583	474	
750	61	24	9	0.949	27	345	65	80	2.211	690	1,011	3,010	26.5	4,500	1,000	0.0236	0.0318	0.081	0.0321±j0.0474	0.0858±j0.7157	18,960	43,330	52,830	513	752	592	
1000	61	25	8	1.095	27	345	65	80	2.387	920	1,321	3,695	28.7	6,000	1,000	0.0177	0.0245	0.090	0.0244±j0.0462	0.0779±j0.7089	24,790	56,640	69,060	599	898	690	
Full Neutral																											
1/0	19	10	12	0.354	20	345	50	55	1.456	97	209	977	17.5	633	1,000	0.1680	0.2230	0.042	0.2255±j0.0583	0.2795±j0.7575	3,920	8,960	10,920	175	225	202	
2/0	19	13	12	0.398	20	345	50	55	1.500	122	272	1,092	18.0	799	1,000	0.1330	0.1770	0.045	0.1785±j0.0566	0.2325±j0.7535	5,100	11,650	14,200	198	258	229	
3/0	19	16	12	0.449	20	345	50	55	1.550	154	334	1,212	18.6	1,007	1,000	0.1050	0.1410	0.048	0.1408±j0.0502	0.1949±j0.7492	6,270	14,330	17,480	227	298	261	
4/0	19	13	10	0.504	20	345	50	55	1.648	195	434	1,436	19.8	1,269	1,000	0.0836	0.1110	0.052	0.1122±j0.0539	0.1662±j0.7438	8,140	18,590	22,670	256	344	296	
250	37	15	10	0.547	20	345	50	80	1.741	230	500	1,629	20.9	1,500	1,000	0.0707	0.0955	0.055	0.0951±j0.0534	0.1490±j0.7394	9,390	21,450	26,160	281	381	324	
350	37	21	10	0.650	20	345	50	80	1.844	322	701	1,985	22.1	2,100	1,000	0.0505	0.0680	0.061	0.0681±j0.0512	0.1220±j0.7328	13,140	30,030	36,620	337	467	390	
500	37	24	9	0.773	20	345	50	80	1.991	460	1,011	2,535	23.9	3,000	1,000	0.0354	0.0474	0.069	0.0477±j0.0494	0.1016±j0.7246	18,960	43,330	52,830	412	585	475	
750	61	28	8	0.949	27	345	65	80	2.241	690	1,480	3,473	26.9	4,500	1,000	0.0236	0.0318	0.081	0.0320±j0.0389	0.0858±j0.7151	27,770	63,440	77,350	514	755	593	

- All dimensions and weights are nominal and subject to normal manufacturing tolerances.
- Ampacities: In Duct: Buried in duct, earth RHO 100, 25°C ambient, 100% load factor, 39.4" burial depth, and neutral wires bonded at a single point. Free Air: 40°C ambient, 100% load factor and neutral wires bonded at a single point. Direct Burial: Ambient temperature 25°C and 39.4" burial depth, earth RHO 100, and neutral wires bonded at a single point.
- Impedance: Calculations are based on trefoil formation / earth loop / conductor temperature of 105°C.
- Jacket thickness is measured from the outermost point of the concentric neutral wire to the outermost point of the jacket.
- Other designs available upon request.
- The above parameters are for reference only, based on the technical requirements.

35kV MV-105 AL TR-XLPE 100% INS XLPE - Flat

Weights & Measurements															Electrical and Engineering Data - Flat - Single Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 105°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		AWG MCM	No. Wires	Size	In.	Mils				In.	lbs./kft					In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Amps
1/12 Neutral																											
1/0	19	6	16	0.354	20	345	50	55	1.396	97	50	776	16.8	633	1,000	0.1680	0.2260	0.042	0.2255±j0.0486	0.2794±j0.7486	930	2,130	2,600	172	228	198	
2/0	19	6	16	0.398	20	345	50	55	1.440	122	50	833	17.3	799	1,000	0.1330	0.1780	0.045	0.1785±j0.0470	0.2324±j0.7446	930	2,130	2,600	195	262	225	
3/0	19	6	16	0.449	20	345	50	55	1.491	154	50	896	17.9	1,007	1,000	0.1050	0.1410	0.048	0.1408±j0.0545	0.1949±j0.7402	930	2,130	2,600	224	302	256	
4/0	19	6	16	0.504	20	345	50	55	1.546	195	50	981	18.6	1,269	1,000	0.0836	0.1120	0.052	0.1122±j0.0438	0.1661±j0.7359	930	2,130	2,600	252	347	290	
250	37	6	16	0.547	20	345	50	55	1.589	230	50	1,053	19.1	1,500	1,000	0.0707	0.0950	0.055	0.0950±j0.0428	0.1490±j0.7327	930	2,130	2,600	275	384	318	
350	37	7	16	0.650	20	345	50	80	1.742	322	58	1,284	20.9	2,100	1,000	0.0505	0.0680	0.061	0.0681±j0.0412	0.1220±j0.7246	1,090	2,480	3,030	331	472	382	
500	37	7	14	0.773	20	345	50	80	1.891	460	92	1,578	22.7	3,000	1,000	0.0354	0.0480	0.069	0.0477±j0.0395	0.1015±j0.7162	1,740	3,960	4,830	404	593	465	
750	61	10	14	0.949	27	345	65	80	2.111	690	132	2,073	25.3	4,500	1,000	0.0236	0.0320	0.081	0.0320±j0.0377	0.0857±j0.7070	2,480	5,660	6,910	504	763	579	
1000	61	13	14	1.095	27	345	65	80	2.257	920	172	2,460	27.1	6,000	1,000	0.0177	0.0240	0.090	0.0243±j0.0362	0.0778±j0.7007	3,220	7,360	8,980	586	909	674	
1250	91	16	14	1.228	30	345	65	80	2.396	1,150	211	2,850	28.8	7,500	1,000	0.0141	0.0200	0.099	0.0196±j0.0352	0.0730±j0.6953	3,970	9,060	11,050	661	1,045	760	
1500	91	19	14	1.343	39	345	65	80	2.529	1,380	251	3,245	30.4	9,000	1,000	0.0118	0.0170	0.107	0.0166±j0.0345	0.0699±j0.6908	4,710	10,760	13,120	725	1,165	832	
1/6 Neutral																											
1/0	19	6	16	0.354	20	345	50	55	1.396	97	50	776	16.8	633	1,000	0.1680	0.2260	0.042	0.2255±j0.0486	0.2794±j0.7486	930	2,130	2,600	172	228	198	
2/0	19	6	16	0.398	20	345	50	55	1.440	122	50	833	17.3	799	1,000	0.1330	0.1780	0.045	0.1785±j0.0470	0.2324±j0.7446	930	2,130	2,600	195	262	225	
3/0	19	7	16	0.449	20	345	50	55	1.491	154	58	903	17.9	1,007	1,000	0.1050	0.1410	0.048	0.1408±j0.0545	0.1949±j0.7402	1,090	2,480	3,030	224	302	256	
4/0	19	9	16	0.504	20	345	50	55	1.546	195	74	1,003	18.6	1,269	1,000	0.0836	0.1120	0.052	0.1122±j0.0438	0.1661±j0.7359	1,400	3,190	3,890	252	347	290	
250	37	10	16	0.547	20	345	50	55	1.589	230	83	1,083	19.1	1,500	1,000	0.0707	0.0950	0.055	0.0950±j0.0428	0.1490±j0.7327	1,550	3,550	4,330	275	384	318	
350	37	9	14	0.650	20	345	50	80	1.768	322	119	1,371	21.2	2,100	1,000	0.0505	0.0680	0.061	0.0681±j0.0415	0.1220±j0.7239	2,230	5,100	6,220	332	474	382	
500	37	8	12	0.773	20	345	50	80	1.925	460	167	1,688	23.1	3,000	1,000	0.0354	0.0480	0.069	0.0477±j0.0399	0.1015±j0.7154	3,140	7,170	8,740	405	596	466	
750	61	19	14	0.949	27	345	65	80	2.111	690	251	2,180	25.3	4,500	1,000	0.0236	0.0320	0.081	0.0320±j0.0377	0.0857±j0.7070	4,710	10,760	13,120	504	763	579	
1000	61	16	12	1.095	27	345	65	80	2.291	920	334	2,658	27.5	6,000	1,000	0.0177	0.0240	0.090	0.0243±j0.0365	0.0778±j0.7000	6,270	14,330	17,480	588	913	676	
1250	91	20	12	1.228	30	345	65	80	2.430	1,150	418	3,090	29.2	7,500	1,000	0.0141	0.0200	0.099	0.0196±j0.0354	0.0730±j0.6947	7,840	17,920	21,850	663	1,050	761	
1500	91	24	12	1.343	39	345	65	80	2.563	1,380	502	3,527	30.8	9,000	1,000	0.0118	0.0170	0.107	0.0166±j0.0348	0.0699±j0.6902	9,410	21,500	26,220	726	1,170	834	

35kV MV-105 AL TR-XLPE 100% INS XLPE - Flat

Weights & Measurements															Electrical and Engineering Data - Flat - Single Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 105°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft	μF/kft	Ω/kft	Ω/kft	Amps	
1/3 Neutral																											
1/0	19	6	14	0.354	20	345	50	55	1.422	97	79	828	17.1	633	1,000	0.1680	0.2260	0.042	0.2255±j0.0490	0.2794±j0.7478	1,490	3,400	4,140	172	229	199	
2/0	19	11	16	0.398	20	345	50	55	1.440	122	91	870	17.3	799	1,000	0.1330	0.1780	0.045	0.1785±j0.0470	0.2324±j0.7446	1,710	3,900	4,760	195	262	225	
3/0	19	14	16	0.449	20	345	50	55	1.491	154	116	955	17.9	1,007	1,000	0.1050	0.1410	0.048	0.1408±j0.0545	0.1949±j0.7402	2,170	4,970	6,060	224	302	256	
4/0	19	11	14	0.504	20	345	50	55	1.572	195	145	1,095	18.9	1,269	1,000	0.0836	0.1120	0.052	0.1122±j0.0441	0.1661±j0.7351	2,730	6,230	7,600	252	348	291	
250	37	13	14	0.547	20	345	50	55	1.615	230	172	1,192	19.4	1,500	1,000	0.0707	0.0950	0.055	0.0950±j0.0431	0.1490±j0.7320	3,220	7,360	8,980	276	385	319	
350	37	18	14	0.650	20	345	50	80	1.768	322	238	1,477	21.2	2,100	1,000	0.0505	0.0680	0.061	0.0681±j0.0415	0.1220±j0.7239	4,460	10,200	12,430	332	474	382	
500	37	16	12	0.773	20	345	50	80	1.925	460	334	1,838	23.1	3,000	1,000	0.0354	0.0480	0.069	0.0477±j0.0399	0.1015±j0.7154	6,270	14,330	17,480	405	596	466	
750	61	15	10	0.949	27	345	65	80	2.187	690	500	2,514	26.2	4,500	1,000	0.0236	0.0320	0.081	0.0320±j0.0384	0.0857±j0.7054	9,390	21,450	26,160	506	771	582	
1000	61	20	10	1.095	27	345	65	80	2.333	920	667	3,023	28.0	6,000	1,000	0.0177	0.0240	0.090	0.0243±j0.0369	0.0778±j0.6992	12,520	28,600	34,870	590	919	677	
1250	91	20	9	1.228	30	345	65	80	2.496	1,150	842	3,584	30.0	7,500	1,000	0.0141	0.0200	0.099	0.0195±j0.0360	0.0730±j0.6934	15,800	36,110	44,020	666	1,059	764	
1500	91	24	9	1.343	39	345	65	80	2.629	1,380	1,011	4,103	31.6	9,000	1,000	0.0118	0.0170	0.107	0.0166±j0.0353	0.0699±j0.6890	18,960	43,330	52,830	730	1,181	837	
1/2 Neutral																											
1/0	19	8	14	0.354	20	345	50	55	1.422	97	106	852	17.1	633	1,000	0.1680	0.2260	0.042	0.2255±j0.0490	0.2794±j0.7478	1,980	4,530	5,530	172	229	199	
2/0	19	10	14	0.398	20	345	50	55	1.466	122	132	934	17.6	799	1,000	0.1330	0.1780	0.045	0.1785±j0.0473	0.2324±j0.7438	2,480	5,660	6,910	196	263	226	
3/0	19	13	14	0.449	20	345	50	55	1.517	154	172	1,031	18.2	1,007	1,000	0.1050	0.1410	0.048	0.1408±j0.0550	0.1949±j0.7394	3,220	7,360	8,980	224	303	257	
4/0	19	10	12	0.504	20	345	50	55	1.606	195	209	1,188	19.3	1,269	1,000	0.0836	0.1120	0.052	0.1122±j0.0446	0.1661±j0.7341	3,920	8,960	10,920	253	350	292	
250	37	12	12	0.547	20	345	50	55	1.649	230	251	1,299	19.8	1,500	1,000	0.0707	0.0950	0.055	0.0950±j0.0435	0.1490±j0.7310	4,710	10,750	13,110	277	388	319	
350	37	11	10	0.650	20	345	50	80	1.844	322	367	1,686	22.1	2,100	1,000	0.0505	0.0680	0.061	0.0681±j0.0423	0.1220±j0.7220	6,890	15,730	19,180	334	480	384	
500	37	15	10	0.773	20	345	50	80	1.967	460	500	2,043	23.6	3,000	1,000	0.0354	0.0480	0.069	0.0477±j0.0403	0.1015±j0.7144	9,390	21,450	26,160	406	600	467	
750	61	18	9	0.949	27	345	65	80	2.211	690	758	2,783	26.5	4,500	1,000	0.0236	0.0320	0.081	0.0320±j0.0386	0.0857±j0.7049	14,220	32,490	39,620	507	774	583	
1000	61	24	9	1.095	27	345	65	80	2.357	920	1,011	3,372	28.3	6,000	1,000	0.0177	0.0240	0.090	0.0243±j0.0371	0.0778±j0.6987	18,960	43,330	52,830	591	922	678	
1250	91	24	8	1.228	30	345	65	80	2.526	1,150	1,268	4,014	30.3	7,500	1,000	0.0141	0.0200	0.099	0.0195±j0.0362	0.0730±j0.6929	23,800	54,380	66,300	667	1,063	765	
1500	91	28	8	1.343	39	345	65	80	2.659	1,380	1,480	4,574	31.9	9,000	1,000	0.0118	0.0170	0.107	0.0166±j0.0355	0.0699±j0.6885	27,770	63,440	77,350	731	1,185	838	

35kV MV-105 AL TR-XLPE 100% INS XLPE - Flat

Weights & Measurements															Electrical and Engineering Data - Flat - Single Point Impedance											
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities		
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 105°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft	
2/3 Neutral																										
1/0	19	11	14	0.354	20	345	50	55	1.422	97	145	887	17.1	633	1,000	0.1680	0.2260	0.042	0.2255±j0.0490	0.2794±j0.7478	2,730	6,230	7,600	172	229	199
2/0	19	21	16	0.398	20	345	50	55	1.440	122	174	945	17.3	799	1,000	0.1330	0.1780	0.045	0.1785±j0.0470	0.2324±j0.7446	3,260	7,450	9,080	195	262	225
3/0	19	17	14	0.449	20	345	50	55	1.517	154	225	1,078	18.2	1,007	1,000	0.1050	0.1410	0.048	0.1408±j0.0550	0.1949±j0.7394	4,210	9,630	11,740	224	303	257
4/0	19	14	12	0.504	20	345	50	55	1.606	195	293	1,244	19.3	1,269	1,000	0.0836	0.1120	0.052	0.1122±j0.0446	0.1661±j0.7341	5,490	12,540	15,290	253	350	292
250	37	16	12	0.547	20	345	50	55	1.649	230	334	1,375	19.8	1,500	1,000	0.0707	0.0950	0.055	0.0950±j0.0435	0.1490±j0.7310	6,270	14,330	17,480	277	388	319
350	37	22	12	0.650	20	345	50	80	1.802	322	460	1,717	21.6	2,100	1,000	0.0505	0.0680	0.061	0.0681±j0.0419	0.1220±j0.7230	8,630	19,710	24,030	333	477	383
500	37	20	10	0.773	20	345	50	80	1.967	460	667	2,193	23.6	3,000	1,000	0.0354	0.0480	0.069	0.0477±j0.0403	0.1015±j0.7144	12,520	28,600	34,870	406	600	467
750	61	24	9	0.949	27	345	65	80	2.211	690	1,011	3,010	26.5	4,500	1,000	0.0236	0.0320	0.081	0.0320±j0.0386	0.0857±j0.7049	18,960	43,330	52,830	507	774	583
1000	61	25	8	1.095	27	345	65	80	2.387	920	1,321	3,695	28.7	6,000	1,000	0.0177	0.0240	0.090	0.0243±j0.0373	0.0778±j0.6981	24,790	56,640	69,060	592	925	679
Full Neutral																										
1/0	19	10	12	0.354	20	345	50	55	1.456	97	209	977	17.5	633	1,000	0.1680	0.2260	0.042	0.2255±j0.0494	0.2794±j0.7467	3,920	8,960	10,920	173	230	199
2/0	19	13	12	0.398	20	345	50	55	1.500	122	272	1,092	18.0	799	1,000	0.1330	0.1780	0.045	0.1785±j0.0478	0.2324±j0.7427	5,100	11,650	14,200	196	265	226
3/0	19	16	12	0.449	20	345	50	55	1.550	154	334	1,212	18.6	1,007	1,000	0.1050	0.1410	0.048	0.1408±j0.0554	0.1949±j0.7384	6,270	14,330	17,480	225	305	257
4/0	19	13	10	0.504	20	345	50	55	1.648	195	434	1,436	19.8	1,269	1,000	0.0836	0.1120	0.052	0.1122±j0.0450	0.1661±j0.7330	8,140	18,590	22,670	254	353	292
250	37	15	10	0.547	20	345	50	80	1.741	230	500	1,629	20.9	1,500	1,000	0.0707	0.0950	0.055	0.0950±j0.0445	0.1490±j0.7285	9,390	21,450	26,160	278	391	320
350	37	21	10	0.650	20	345	50	80	1.844	322	701	1,985	22.1	2,100	1,000	0.0505	0.0680	0.061	0.0681±j0.0423	0.1220±j0.7220	13,140	30,030	36,620	334	480	384
500	37	24	9	0.773	20	345	50	80	1.991	460	1,011	2,535	23.9	3,000	1,000	0.0354	0.0480	0.069	0.0477±j0.0405	0.1015±j0.7138	18,960	43,330	52,830	407	602	468
750	61	28	8	0.949	27	345	65	80	2.241	690	1,480	3,473	26.9	4,500	1,000	0.0236	0.0320	0.081	0.0320±j0.0388	0.0857±j0.7043	27,770	63,440	77,350	508	777	584

- All dimensions and weights are nominal and subject to normal manufacturing tolerances.
- Ampacities: In Duct: Buried in duct, earth RHO 100, 25°C ambient, 100% load factor, 39.4" burial depth, and neutral wires bonded at a single point. Free Air: 40°C ambient, 100% load factor and neutral wires bonded at a single point. Direct Burial: Ambient temperature 25°C and 39.4" burial depth, earth RHO 100, and neutral wires bonded at a single point.
- Impedance: Calculations are based on flat formation / earth loop / conductor temperature of 105°C.
- Jacket thickness is measured from the outermost point of the concentric neutral wire to the outermost point of the jacket.
- Other designs available upon request.
- The above parameters are for reference only, based on the technical requirements.

35kV MV-105 AL TR-XLPE 100% INS XLPE - Trefoil

Weights & Measurements															Electrical and Engineering Data - Trefoil - Both Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 105°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		AWG MCM	No. Wires	Size	In.	Mils				In.	lbs./kft					In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Ω/kft
1/12 Neutral																											
1/0	19	6	16	0.354	20	345	50	55	1.396	97	50	776	16.8	633	1,000	0.1680	0.2230	0.042	0.2260±j0.0532	1.1055±j0.0417	930	2,130	2,600	174	222	201	
2/0	19	6	16	0.398	20	345	50	55	1.440	122	50	833	17.3	799	1,000	0.1330	0.1770	0.045	0.1790±j0.0512	1.0585±j0.0399	930	2,130	2,600	197	255	228	
3/0	19	6	16	0.449	20	345	50	55	1.491	154	50	896	17.9	1,007	1,000	0.1050	0.1410	0.048	0.1414±j0.0492	1.0209±j0.0380	930	2,130	2,600	226	294	259	
4/0	19	6	16	0.504	20	345	50	55	1.546	195	50	981	18.6	1,269	1,000	0.0836	0.1110	0.052	0.1128±j0.0474	0.9923±j0.0363	930	2,130	2,600	241	337	273	
250	37	6	16	0.547	20	345	50	55	1.589	230	50	1,053	19.1	1,500	1,000	0.0707	0.0955	0.055	0.0956±j0.0461	0.9751±j0.0352	930	2,130	2,600	278	373	322	
350	37	7	16	0.650	20	345	50	80	1.742	322	58	1,284	20.9	2,100	1,000	0.0505	0.0680	0.061	0.0689±j0.0443	0.8225±j0.0321	1,090	2,480	3,030	334	458	386	
500	37	7	14	0.773	20	345	50	80	1.891	460	92	1,578	22.7	3,000	1,000	0.0354	0.0474	0.069	0.0490±j0.0426	0.5222±j0.0304	1,740	3,960	4,830	406	573	469	
750	61	10	14	0.949	27	345	65	80	2.111	690	132	2,073	25.3	4,500	1,000	0.0236	0.0318	0.081	0.0338±j0.0399	0.3643±j0.0266	2,480	5,660	6,910	502	733	580	
1000	61	13	14	1.095	27	345	65	80	2.257	920	172	2,460	27.1	6,000	1,000	0.0177	0.0245	0.090	0.0266±j0.0381	0.2800±j0.0241	3,220	7,360	8,980	580	866	670	
1250	91	16	14	1.228	30	345	65	80	2.396	1,150	211	2,850	28.8	7,500	1,000	0.0141	0.0195	0.099	0.0224±j0.0367	0.2274±j0.0224	3,970	9,060	11,050	646	987	746	
1500	91	19	14	1.343	39	345	65	80	2.529	1,380	251	3,245	30.4	9,000	1,000	0.0118	0.0167	0.107	0.0199±j0.0358	0.1917±j0.0213	4,710	10,760	13,120	700	1,088	808	
1/6 Neutral																											
1/0	19	6	16	0.354	20	345	50	55	1.396	97	50	776	16.8	633	1,000	0.1680	0.2230	0.042	0.2260±j0.0532	1.1055±j0.0417	930	2,130	2,600	174	222	201	
2/0	19	6	16	0.398	20	345	50	55	1.440	122	50	833	17.3	799	1,000	0.1330	0.1770	0.045	0.1790±j0.0512	1.0585±j0.0399	930	2,130	2,600	197	255	228	
3/0	19	7	16	0.449	20	345	50	55	1.491	154	58	903	17.9	1,007	1,000	0.1050	0.1410	0.048	0.1414±j0.0492	0.8952±j0.0372	1,090	2,480	3,030	226	294	259	
4/0	19	9	16	0.504	20	345	50	55	1.546	195	74	1,003	18.6	1,269	1,000	0.0836	0.1110	0.052	0.1131±j0.0474	0.6989±j0.0344	1,400	3,190	3,890	253	337	294	
250	37	10	16	0.547	20	345	50	55	1.589	230	83	1,083	19.1	1,500	1,000	0.0707	0.0955	0.055	0.0961±j0.0461	0.6231±j0.0328	1,550	3,550	4,330	277	373	321	
350	37	9	14	0.650	20	345	50	80	1.768	322	119	1,371	21.2	2,100	1,000	0.0505	0.0680	0.061	0.0696±j0.0446	0.4371±j0.0310	2,230	5,100	6,220	333	459	385	
500	37	8	12	0.773	20	345	50	80	1.925	460	167	1,688	23.1	3,000	1,000	0.0354	0.0474	0.069	0.0499±j0.0428	0.3089±j0.0298	3,140	7,170	8,740	405	574	467	
750	61	19	14	0.949	27	345	65	80	2.111	690	251	2,180	25.3	4,500	1,000	0.0236	0.0318	0.081	0.0353±j0.0396	0.2070±j0.0245	4,710	10,760	13,120	496	726	574	
1000	61	16	12	1.095	27	345	65	80	2.291	920	334	2,658	27.5	6,000	1,000	0.0177	0.0245	0.090	0.0285±j0.0379	0.1550±j0.0235	6,270	14,330	17,480	569	856	657	
1250	91	20	12	1.228	30	345	65	80	2.430	1,150	418	3,090	29.2	7,500	1,000	0.0141	0.0195	0.099	0.0247±j0.0362	0.1242±j0.0218	7,840	17,920	21,850	627	967	725	
1500	91	24	12	1.343	39	345	65	80	2.563	1,380	502	3,527	30.8	9,000	1,000	0.0118	0.0167	0.107	0.0226±j0.0350	0.1039±j0.0207	9,410	21,500	26,220	672	1,057	777	

35kV MV-105 AL TR-XLPE 100% INS XLPE - Trefoil

Weights & Measurements															Electrical and Engineering Data - Trefoil - Both Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 105°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft	μF/kft	Ω/kft	Ω/kft	Amps	
1/3 Neutral																											
1/0	19	6	14	0.354	20	345	50	55	1.422	97	79	828	17.1	633	1,000	0.1680	0.2230	0.042	0.2264±j0.0536	0.7789±j0.0417	1,490	3,400	4,140	174	223	201	
2/0	19	11	16	0.398	20	345	50	55	1.440	122	91	870	17.3	799	1,000	0.1330	0.1770	0.045	0.1795±j0.0511	0.6585±j0.0372	1,710	3,900	4,760	197	255	228	
3/0	19	14	16	0.449	20	345	50	55	1.491	154	116	955	17.9	1,007	1,000	0.1050	0.1410	0.048	0.1423±j0.0491	0.5180±j0.0344	2,170	4,970	6,060	225	294	259	
4/0	19	11	14	0.504	20	345	50	55	1.572	195	145	1,095	18.9	1,269	1,000	0.0836	0.1110	0.052	0.1140±j0.0477	0.4141±j0.0336	2,730	6,230	7,600	254	338	294	
250	37	13	14	0.547	20	345	50	55	1.615	230	172	1,192	19.4	1,500	1,000	0.0707	0.0955	0.055	0.0971±j0.0463	0.3505±j0.0319	3,220	7,360	8,980	277	374	321	
350	37	18	14	0.650	20	345	50	80	1.768	322	238	1,477	21.2	2,100	1,000	0.0505	0.0680	0.061	0.0711±j0.0443	0.2526±j0.0286	4,460	10,200	12,430	331	457	383	
500	37	16	12	0.773	20	345	50	80	1.925	460	334	1,838	23.1	3,000	1,000	0.0354	0.0474	0.069	0.0519±j0.0422	0.1783±j0.0272	6,270	14,330	17,480	400	569	462	
750	61	15	10	0.949	27	345	65	80	2.187	690	500	2,514	26.2	4,500	1,000	0.0236	0.0318	0.081	0.0380±j0.0393	0.1198±j0.0252	9,390	21,450	26,160	487	720	563	
1000	61	20	10	1.095	27	345	65	80	2.333	920	667	3,023	28.0	6,000	1,000	0.0177	0.0245	0.090	0.0318±j0.0364	0.0902±j0.0229	12,520	28,600	34,870	549	836	635	
1250	91	20	9	1.228	30	345	65	80	2.496	1,150	842	3,584	30.0	7,500	1,000	0.0141	0.0195	0.099	0.0284±j0.0341	0.0718±j0.0218	15,800	36,110	44,020	598	936	691	
1500	91	24	9	1.343	39	345	65	80	2.629	1,380	1,011	4,103	31.6	9,000	1,000	0.0118	0.0167	0.107	0.0264±j0.0320	0.0602±j0.0207	18,960	43,330	52,830	634	1,013	733	
1/2 Neutral																											
1/0	19	8	14	0.354	20	345	50	55	1.422	97	106	852	17.1	633	1,000	0.1680	0.2230	0.042	0.2267±j0.0535	0.6405±j0.0403	1,980	4,530	5,530	174	223	201	
2/0	19	10	14	0.398	20	345	50	55	1.466	122	132	934	17.6	799	1,000	0.1330	0.1770	0.045	0.1800±j0.0515	0.5105±j0.0375	2,480	5,660	6,910	197	256	228	
3/0	19	13	14	0.449	20	345	50	55	1.517	154	172	1,031	18.2	1,007	1,000	0.1050	0.1410	0.048	0.1429±j0.0494	0.3962±j0.0347	3,220	7,360	8,980	225	295	259	
4/0	19	10	12	0.504	20	345	50	55	1.606	195	209	1,188	19.3	1,269	1,000	0.0836	0.1110	0.052	0.1148±j0.0480	0.3210±j0.0340	3,920	8,960	10,920	254	340	294	
250	37	12	12	0.547	20	345	50	55	1.649	230	251	1,299	19.8	1,500	1,000	0.0707	0.0955	0.055	0.0981±j0.0466	0.2691±j0.0321	4,710	10,750	13,110	277	375	321	
350	37	11	10	0.650	20	345	50	80	1.844	322	367	1,686	22.1	2,100	1,000	0.0505	0.0680	0.061	0.0727±j0.0447	0.1875±j0.0301	6,890	15,730	19,180	331	460	383	
500	37	15	10	0.773	20	345	50	80	1.967	460	500	2,043	23.6	3,000	1,000	0.0354	0.0474	0.069	0.0537±j0.0419	0.1353±j0.0274	9,390	21,450	26,160	397	568	458	
750	61	18	9	0.949	27	345	65	80	2.211	690	758	2,783	26.5	4,500	1,000	0.0236	0.0318	0.081	0.0403±j0.0378	0.0900±j0.0247	14,220	32,490	39,620	477	711	552	
1000	61	24	9	1.095	27	345	65	80	2.357	920	1,011	3,372	28.3	6,000	1,000	0.0177	0.0245	0.090	0.0342±j0.0341	0.0679±j0.0224	18,960	43,330	52,830	534	820	618	
1250	91	24	8	1.228	30	345	65	80	2.526	1,150	1,268	4,014	30.3	7,500	1,000	0.0141	0.0195	0.099	0.0305±j0.0310	0.0542±j0.0213	23,800	54,380	66,300	579	914	670	
1500	91	28	8	1.343	39	345	65	80	2.659	1,380	1,480	4,574	31.9	9,000	1,000	0.0118	0.0167	0.107	0.0261±j0.0327	0.0627±j0.0214	27,770	63,440	77,350	637	1,021	737	

35kV MV-105 AL TR-XLPE 100% INS XLPE - Trefoil

Weights & Measurements															Electrical and Engineering Data - Trefoil - Both Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 105°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Ω/kft
2/3 Neutral																											
1/0	19	11	14	0.354	20	345	50	55	1.422	97	145	887	17.1	633	1,000	0.1680	0.2230	0.042	0.2272±j0.0535	0.5273±j0.0390	2,730	6,230	7,600	174	223	201	
2/0	19	21	16	0.398	20	345	50	55	1.440	122	174	945	17.3	799	1,000	0.1330	0.1770	0.045	0.1806±j0.0510	0.4299±j0.0351	3,260	7,450	9,080	197	255	227	
3/0	19	17	14	0.449	20	345	50	55	1.517	154	225	1,078	18.2	1,007	1,000	0.1050	0.1410	0.048	0.1436±j0.0493	0.3361±j0.0339	4,210	9,630	11,740	225	295	259	
4/0	19	14	12	0.504	20	345	50	55	1.606	195	293	1,244	19.3	1,269	1,000	0.0836	0.1110	0.052	0.1157±j0.0477	0.2614±j0.0328	5,490	12,540	15,290	253	339	293	
250	37	16	12	0.547	20	345	50	55	1.649	230	334	1,375	19.8	1,500	1,000	0.0707	0.0955	0.055	0.0991±j0.0463	0.2256±j0.0312	6,270	14,330	17,480	276	374	320	
350	37	22	12	0.650	20	345	50	80	1.802	322	460	1,717	21.6	2,100	1,000	0.0505	0.0680	0.061	0.0737±j0.0437	0.1630±j0.0280	8,630	19,710	24,030	329	456	380	
500	37	20	10	0.773	20	345	50	80	1.967	460	667	2,193	23.6	3,000	1,000	0.0354	0.0474	0.069	0.0553±j0.0408	0.1134±j0.0265	12,520	28,600	34,870	393	563	454	
750	61	24	9	0.949	27	345	65	80	2.211	690	1,011	3,010	26.5	4,500	1,000	0.0236	0.0318	0.081	0.0419±j0.0358	0.0756±j0.0239	18,960	43,330	52,830	470	702	543	
1000	61	25	8	1.095	27	345	65	80	2.387	920	1,321	3,695	28.7	6,000	1,000	0.0177	0.0245	0.090	0.0354±j0.0319	0.0575±j0.0223	24,790	56,640	69,060	525	811	608	
Full Neutral																											
1/0	19	10	12	0.354	20	345	50	55	1.456	97	209	977	17.5	633	1,000	0.1680	0.2230	0.042	0.2280±j0.0538	0.4343±j0.0393	3,920	8,960	10,920	174	224	201	
2/0	19	13	12	0.398	20	345	50	55	1.500	122	272	1,092	18.0	799	1,000	0.1330	0.1770	0.045	0.1817±j0.0517	0.3391±j0.0365	5,100	11,650	14,200	197	257	228	
3/0	19	16	12	0.449	20	345	50	55	1.550	154	334	1,212	18.6	1,007	1,000	0.1050	0.1410	0.048	0.1448±j0.0494	0.2713±j0.0340	6,270	14,330	17,480	225	296	259	
4/0	19	13	10	0.504	20	345	50	55	1.648	195	434	1,436	19.8	1,269	1,000	0.0836	0.1110	0.052	0.1173±j0.0477	0.2132±j0.0330	8,140	18,590	22,670	253	341	293	
250	37	15	10	0.547	20	345	50	80	1.741	230	500	1,629	20.9	1,500	1,000	0.0707	0.0955	0.055	0.1011±j0.0466	0.1826±j0.0314	9,390	21,450	26,160	276	375	319	
350	37	21	10	0.650	20	345	50	80	1.844	322	701	1,985	22.1	2,100	1,000	0.0505	0.0680	0.061	0.0760±j0.0426	0.1307±j0.0281	13,140	30,030	36,620	326	455	377	
500	37	24	9	0.773	20	345	50	80	1.991	460	1,011	2,535	23.9	3,000	1,000	0.0354	0.0474	0.069	0.0576±j0.0384	0.0912±j0.0261	18,960	43,330	52,830	387	558	448	
750	61	28	8	0.949	27	345	65	80	2.241	690	1,480	3,473	26.9	4,500	1,000	0.0236	0.0318	0.081	0.0435±j0.0324	0.0617±j0.0236	27,770	63,440	77,350	461	694	534	

- All dimensions and weights are nominal and subject to normal manufacturing tolerances.
- Ampacities: In Duct: Buried in duct, earth RHO 100, 25°C ambient, 100% load factor, 39.4" burial depth, and neutral wires bonded at both point. Free Air: 40°C ambient, 100% load factor and neutral wires bonded at both point. Direct Burial: Ambient temperature 25°C and 39.4" burial depth, earth RHO 100, and neutral wires bonded at both point.
- Impedance: Calculations are based on trefoil formation / shield loop / conductor temperature of 105°C.
- Jacket thickness is measured from the outermost point of the concentric neutral wire to the outermost point of the jacket.
- Other designs available upon request.
- The above parameters are for reference only, based on the technical requirements.

35kV MV-105 AL TR-XLPE 100% INS XLPE - Flat

Weights & Measurements															Electrical and Engineering Data - Flat - Both Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 105°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		AWG MCM	No. Wires	Size	In.	Mils				In.	lbs./kft					In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Amps
1/12 Neutral																											
1/0	19	6	16	0.354	20	345	50	55	1.396	97	50	776	16.8	633	1,000	0.1680	0.2260	0.042	0.2263±j0.0584	1.1055±j0.0417	930	2,130	2,600	172	227	198	
2/0	19	6	16	0.398	20	345	50	55	1.440	122	50	833	17.3	799	1,000	0.1330	0.1780	0.045	0.1793±j0.0565	1.0585±j0.0399	930	2,130	2,600	195	261	225	
3/0	19	6	16	0.449	20	345	50	55	1.491	154	50	896	17.9	1,007	1,000	0.1050	0.1410	0.048	0.1417±j0.0545	1.0209±j0.0380	930	2,130	2,600	223	301	256	
4/0	19	6	16	0.504	20	345	50	55	1.546	195	50	981	18.6	1,269	1,000	0.0836	0.1120	0.052	0.1131±j0.0527	0.9923±j0.0363	930	2,130	2,600	238	346	269	
250	37	6	16	0.547	20	345	50	55	1.589	230	50	1,053	19.1	1,500	1,000	0.0707	0.0950	0.055	0.0960±j0.0514	0.9751±j0.0352	930	2,130	2,600	274	382	317	
350	37	7	16	0.650	20	345	50	80	1.742	322	58	1,284	20.9	2,100	1,000	0.0505	0.0680	0.061	0.0693±j0.0496	0.8225±j0.0321	1,090	2,480	3,030	329	469	379	
500	37	7	14	0.773	20	345	50	80	1.891	460	92	1,578	22.7	3,000	1,000	0.0354	0.0480	0.069	0.0495±j0.0478	0.5222±j0.0304	1,740	3,960	4,830	397	585	457	
750	61	10	14	0.949	27	345	65	80	2.111	690	132	2,073	25.3	4,500	1,000	0.0236	0.0320	0.081	0.0347±j0.0451	0.3643±j0.0266	2,480	5,660	6,910	485	741	558	
1000	61	13	14	1.095	27	345	65	80	2.257	920	172	2,460	27.1	6,000	1,000	0.0177	0.0240	0.090	0.0277±j0.0432	0.2800±j0.0241	3,220	7,360	8,980	550	866	634	
1250	91	16	14	1.228	30	345	65	80	2.396	1,150	211	2,850	28.8	7,500	1,000	0.0141	0.0200	0.099	0.0237±j0.0418	0.2274±j0.0224	3,970	9,060	11,050	602	972	693	
1500	91	19	14	1.343	39	345	65	80	2.529	1,380	251	3,245	30.4	9,000	1,000	0.0118	0.0170	0.107	0.0214±j0.0408	0.1917±j0.0213	4,710	10,760	13,120	639	1,056	736	
1/6 Neutral																											
1/0	19	6	16	0.354	20	345	50	55	1.396	97	50	776	16.8	633	1,000	0.1680	0.2260	0.042	0.2263±j0.0584	1.1055±j0.0417	930	2,130	2,600	172	227	198	
2/0	19	6	16	0.398	20	345	50	55	1.440	122	50	833	17.3	799	1,000	0.1330	0.1780	0.045	0.1793±j0.0565	1.0585±j0.0399	930	2,130	2,600	195	261	225	
3/0	19	7	16	0.449	20	345	50	55	1.491	154	58	903	17.9	1,007	1,000	0.1050	0.1410	0.048	0.1419±j0.0545	0.8952±j0.0372	1,090	2,480	3,030	223	301	256	
4/0	19	9	16	0.504	20	345	50	55	1.546	195	74	1,003	18.6	1,269	1,000	0.0836	0.1120	0.052	0.1136±j0.0526	0.6989±j0.0344	1,400	3,190	3,890	250	345	289	
250	37	10	16	0.547	20	345	50	55	1.589	230	83	1,083	19.1	1,500	1,000	0.0707	0.0950	0.055	0.0966±j0.0514	0.6231±j0.0328	1,550	3,550	4,330	273	381	316	
350	37	9	14	0.650	20	345	50	80	1.768	322	119	1,371	21.2	2,100	1,000	0.0505	0.0680	0.061	0.0704±j0.0498	0.4371±j0.0310	2,230	5,100	6,220	326	468	376	
500	37	8	12	0.773	20	345	50	80	1.925	460	167	1,688	23.1	3,000	1,000	0.0354	0.0480	0.069	0.0509±j0.0479	0.3089±j0.0298	3,140	7,170	8,740	392	581	451	
750	61	19	14	0.949	27	345	65	80	2.111	690	251	2,180	25.3	4,500	1,000	0.0236	0.0320	0.081	0.0368±j0.0446	0.2070±j0.0245	4,710	10,760	13,120	469	723	541	
1000	61	16	12	1.095	27	345	65	80	2.291	920	334	2,658	27.5	6,000	1,000	0.0177	0.0240	0.090	0.0305±j0.0426	0.1550±j0.0235	6,270	14,330	17,480	522	834	602	
1250	91	20	12	1.228	30	345	65	80	2.430	1,150	418	3,090	29.2	7,500	1,000	0.0141	0.0200	0.099	0.0270±j0.0407	0.1242±j0.0218	7,840	17,920	21,850	559	919	645	
1500	91	24	12	1.343	39	345	65	80	2.563	1,380	502	3,527	30.8	9,000	1,000	0.0118	0.0170	0.107	0.0252±j0.0391	0.1039±j0.0207	9,410	21,500	26,220	582	983	672	

35kV MV-105 AL TR-XLPE 100% INS XLPE - Flat

Weights & Measurements															Electrical and Engineering Data - Flat - Both Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 105°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		AWG MCM	No. Wires	Size	In.	Mils				In.	lbs./kft					In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Amps
1/3 Neutral																											
1/0	19	6	14	0.354	20	345	50	55	1.422	97	79	828	17.1	633	1,000	0.1680	0.2260	0.042	0.2269±j0.0588	0.7789±j0.0417	1,490	3,400	4,140	172	228	198	
2/0	19	11	16	0.398	20	345	50	55	1.440	122	91	870	17.3	799	1,000	0.1330	0.1780	0.045	0.1801±j0.0564	0.6585±j0.0372	1,710	3,900	4,760	194	261	224	
3/0	19	14	16	0.449	20	345	50	55	1.491	154	116	955	17.9	1,007	1,000	0.1050	0.1410	0.048	0.1430±j0.0544	0.5180±j0.0344	2,170	4,970	6,060	222	300	255	
4/0	19	11	14	0.504	20	345	50	55	1.572	195	145	1,095	18.9	1,269	1,000	0.0836	0.1120	0.052	0.1149±j0.0529	0.4141±j0.0336	2,730	6,230	7,600	249	345	288	
250	37	13	14	0.547	20	345	50	55	1.615	230	172	1,192	19.4	1,500	1,000	0.0707	0.0950	0.055	0.0982±j0.0515	0.3505±j0.0319	3,220	7,360	8,980	271	381	314	
350	37	18	14	0.650	20	345	50	80	1.768	322	238	1,477	21.2	2,100	1,000	0.0505	0.0680	0.061	0.0726±j0.0493	0.2526±j0.0286	4,460	10,200	12,430	321	462	371	
500	37	16	12	0.773	20	345	50	80	1.925	460	334	1,838	23.1	3,000	1,000	0.0354	0.0480	0.069	0.0539±j0.0469	0.1783±j0.0272	6,270	14,330	17,480	380	568	438	
750	61	15	10	0.949	27	345	65	80	2.187	690	500	2,514	26.2	4,500	1,000	0.0236	0.0320	0.081	0.0407±j0.0434	0.1198±j0.0252	9,390	21,450	26,160	445	699	514	
1000	61	20	10	1.095	27	345	65	80	2.333	920	667	3,023	28.0	6,000	1,000	0.0177	0.0240	0.090	0.0349±j0.0398	0.0902±j0.0229	12,520	28,600	34,870	484	788	559	
1250	91	20	9	1.228	30	345	65	80	2.496	1,150	842	3,584	30.0	7,500	1,000	0.0141	0.0200	0.099	0.0318±j0.0367	0.0718±j0.0218	15,800	36,110	44,020	511	860	590	
1500	91	24	9	1.343	39	345	65	80	2.629	1,380	1,011	4,103	31.6	9,000	1,000	0.0118	0.0170	0.107	0.0298±j0.0339	0.0602±j0.0207	18,960	43,330	52,830	530	915	612	
1/2 Neutral																											
1/0	19	8	14	0.354	20	345	50	55	1.422	97	106	852	17.1	633	1,000	0.1680	0.2260	0.042	0.2274±j0.0588	0.6405±j0.0403	1,980	4,530	5,530	172	228	198	
2/0	19	10	14	0.398	20	345	50	55	1.466	122	132	934	17.6	799	1,000	0.1330	0.1780	0.045	0.1809±j0.0567	0.5105±j0.0375	2,480	5,660	6,910	194	262	224	
3/0	19	13	14	0.449	20	345	50	55	1.517	154	172	1,031	18.2	1,007	1,000	0.1050	0.1410	0.048	0.1440±j0.0546	0.3962±j0.0347	3,220	7,360	8,980	254	301	254	
4/0	19	10	12	0.504	20	345	50	55	1.606	195	209	1,188	19.3	1,269	1,000	0.0836	0.1120	0.052	0.1160±j0.0531	0.3210±j0.0340	3,920	8,960	10,920	248	346	287	
250	37	12	12	0.547	20	345	50	55	1.649	230	251	1,299	19.8	1,500	1,000	0.0707	0.0950	0.055	0.0996±j0.0516	0.2691±j0.0321	4,710	10,750	13,110	270	381	312	
350	37	11	10	0.650	20	345	50	80	1.844	322	367	1,686	22.1	2,100	1,000	0.0505	0.0680	0.061	0.0748±j0.0493	0.1875±j0.0301	6,890	15,730	19,180	317	462	366	
500	37	15	10	0.773	20	345	50	80	1.967	460	500	2,043	23.6	3,000	1,000	0.0354	0.0480	0.069	0.0564±j0.0460	0.1353±j0.0274	9,390	21,450	26,160	371	560	428	
750	61	18	9	0.949	27	345	65	80	2.211	690	758	2,783	26.5	4,500	1,000	0.0236	0.0320	0.081	0.0436±j0.0408	0.0900±j0.0247	14,220	32,490	39,620	428	680	494	
1000	61	24	9	1.095	27	345	65	80	2.357	920	1,011	3,372	28.3	6,000	1,000	0.0177	0.0240	0.090	0.0376±j0.0359	0.0679±j0.0224	18,960	43,330	52,830	465	764	537	
1250	91	24	8	1.228	30	345	65	80	2.526	1,150	1,268	4,014	30.3	7,500	1,000	0.0141	0.0200	0.099	0.0337±j0.0319	0.0542±j0.0213	23,800	54,380	66,300	494	838	571	
1500	91	28	8	1.343	39	345	65	80	2.659	1,380	1,480	4,574	31.9	9,000	1,000	0.0118	0.0170	0.107	0.0295±j0.0348	0.0627±j0.0214	27,770	63,440	77,350	534	922	616	

35kV MV-105 AL TR-XLPE 100% INS XLPE - Flat

Weights & Measurements															Electrical and Engineering Data - Flat - Both Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 105°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Ω/kft
2/3 Neutral																											
1/0	19	11	14	0.354	20	345	50	55	1.422	97	145	887	17.1	633	1,000	0.1680	0.2260	0.042	0.2281±j0.0586	0.5273±j0.0390	2,730	6,230	7,600	171	228	198	
2/0	19	21	16	0.398	20	345	50	55	1.440	122	174	945	17.3	799	1,000	0.1330	0.1780	0.045	0.1817±j0.0561	0.4299±j0.0351	3,260	7,450	9,080	194	260	223	
3/0	19	17	14	0.449	20	345	50	55	1.517	154	225	1,078	18.2	1,007	1,000	0.1050	0.1410	0.048	0.1449±j0.0543	0.3361±j0.0339	4,210	9,630	11,740	221	300	253	
4/0	19	14	12	0.504	20	345	50	55	1.606	195	293	1,244	19.3	1,269	1,000	0.0836	0.1120	0.052	0.1175±j0.0526	0.2614±j0.0328	5,490	12,540	15,290	247	344	285	
250	37	16	12	0.547	20	345	50	55	1.649	230	334	1,375	19.8	1,500	1,000	0.0707	0.0950	0.055	0.1010±j0.0510	0.2256±j0.0312	6,270	14,330	17,480	268	379	310	
350	37	22	12	0.650	20	345	50	80	1.802	322	460	1,717	21.6	2,100	1,000	0.0505	0.0680	0.061	0.0763±j0.0479	0.1630±j0.0280	8,630	19,710	24,030	313	455	362	
500	37	20	10	0.773	20	345	50	80	1.967	460	667	2,193	23.6	3,000	1,000	0.0354	0.0480	0.069	0.0584±j0.0441	0.1134±j0.0265	12,520	28,600	34,870	364	551	420	
750	61	24	9	0.949	27	345	65	80	2.211	690	1,011	3,010	26.5	4,500	1,000	0.0236	0.0320	0.081	0.0454±j0.0377	0.0756±j0.0239	18,960	43,330	52,830	419	667	484	
1000	61	25	8	1.095	27	345	65	80	2.387	920	1,321	3,695	28.7	6,000	1,000	0.0177	0.0240	0.090	0.0386±j0.0326	0.0575±j0.0223	24,790	56,640	69,060	458	757	529	
Full Neutral																											
1/0	19	10	12	0.354	20	345	50	55	1.456	97	209	977	17.5	633	1,000	0.1680	0.2260	0.042	0.2293±j0.0589	0.4343±j0.0393	3,920	8,960	10,920	172	229	197	
2/0	19	13	12	0.398	20	345	50	55	1.500	122	272	1,092	18.0	799	1,000	0.1330	0.1780	0.045	0.1834±j0.0566	0.3391±j0.0365	5,100	11,650	14,200	194	262	223	
3/0	19	16	12	0.449	20	345	50	55	1.550	154	334	1,212	18.6	1,007	1,000	0.1050	0.1410	0.048	0.1468±j0.0541	0.2713±j0.0340	6,270	14,330	17,480	220	300	252	
4/0	19	13	10	0.504	20	345	50	55	1.648	195	434	1,436	19.8	1,269	1,000	0.0836	0.1120	0.052	0.1197±j0.0521	0.2132±j0.0330	8,140	18,590	22,670	245	344	283	
250	37	15	10	0.547	20	345	50	80	1.741	230	500	1,629	20.9	1,500	1,000	0.0707	0.0950	0.055	0.1038±j0.0506	0.1826±j0.0314	9,390	21,450	26,160	265	377	306	
350	37	21	10	0.650	20	345	50	80	1.844	322	701	1,985	22.1	2,100	1,000	0.0505	0.0680	0.061	0.0792±j0.0458	0.1307±j0.0281	13,140	30,030	36,620	307	451	355	
500	37	24	9	0.773	20	345	50	80	1.991	460	1,011	2,535	23.9	3,000	1,000	0.0354	0.0480	0.069	0.0611±j0.0402	0.0912±j0.0261	18,960	43,330	52,830	355	543	410	
750	61	28	8	0.949	27	345	65	80	2.241	690	1,480	3,473	26.9	4,500	1,000	0.0236	0.0320	0.081	0.0465±j0.0328	0.0617±j0.0236	27,770	63,440	77,350	413	662	477	
<ol style="list-style-type: none"> All dimensions and weights are nominal and subject to normal manufacturing tolerances. Ampacities: In Duct: Buried in duct, earth RHO 100, 25°C ambient, 100% load factor, 39.4" burial depth, and neutral wires bonded at both point. Free Air: 40°C ambient, 100% load factor and neutral wires bonded at both point. Direct Burial: Ambient temperature 25°C and 39.4" burial depth, earth RHO 100, and neutral wires bonded at both point. Impedance: Calculations are based on flat formation / shield loop / conductor temperature of 105°C. Jacket thickness is measured from the outermost point of the concentric neutral wire to the outermost point of the jacket. Other designs available upon request. The above parameters are for reference only, based on the technical requirements. 																											

Medium Voltage Cable

35kV MV-105 AL TR-XLPE 133% INS XLPE

✂ Construction

- Conductor: 1/0 AWG - 1500kcmil moisture blocked Class B compressed lay stranded 1350-H19 aluminum
- Conductor Shield: Extruded semi-conducting thermoset polymeric stress control layer
- Insulation: Extruded tree-retardant cross-linked polyethylene
- Insulation Shield: Extruded semi-conducting thermoset layer, clean and free stripping from insulation
- Concentric Neutral: Helically applied, annealed, solid bare copper wires
- Jacket: Black with 3 red stripes at 120°, non-conducting, sunlight resistant, cross-linked polyethylene jacket extruded to fill spaces between neutral wires

🏆 Standards

- UL1072 Medium Voltage Cable
- ANSI/ICEA S-94-649
- ANSI/ICEA T-27-581
- ANSI/ICEA T-34-664
- ANSI/ICEA P-45-482
- AEIC CS-8



⚙ Applications

- Primarily underground distribution
- Wet or dry locations, direct burial, duct, and where exposed to sunlight
- 35kV or less
- Conductor temperatures not to exceed 105°C for normal operation
- Insulation level: 133% Insulation level

☰ Options

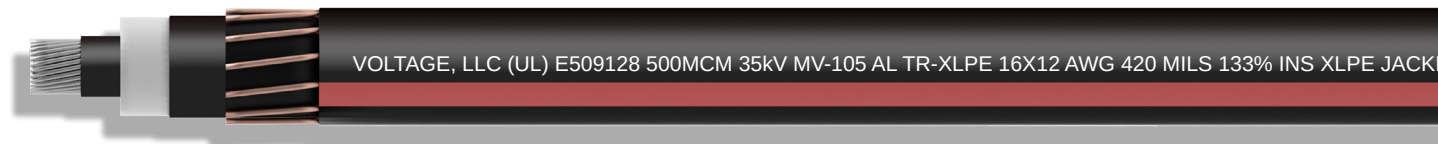
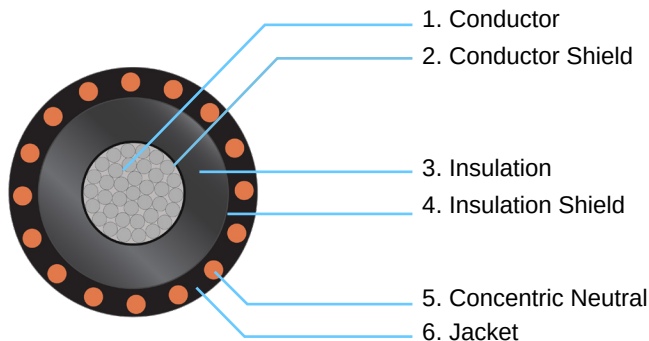
- EPR Insulation
- LLDPE jacket
- TYPE MV-90
- Copper tape screen
- Different concentric neutral levels
- Other voltages available
- Other insulation levels
- Short circuit current is based on customer demand
- Non moisture blocked conductor

📦 Packaging

- Material cut to length
- Shipped on steel reels
- Triplex or parallel packaging available

✂ Sample Print

- Interval imprints with production date, time, cable type, sequential length in 2-foot increments



35kV MV-105 AL TR-XLPE 133% INS XLPE - Trefoil

Weights & Measurements															Electrical and Engineering Data - Trefoil - Single Point Impedance											
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities		
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 105°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial
		AWG MCM	No. Wires	Size	In.	Mils				In.	lbs./kft					In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft	
1/12 Neutral																										
1/0	19	6	16	0.354	20	420	50	55	1.546	97	50	923	18.6	633	1,000	0.1680	0.2260	0.037	0.2255±j0.0594	0.2794±j0.7546	930	2,130	2,600	174	223	200
2/0	19	6	16	0.398	20	420	50	55	1.590	122	50	984	19.1	799	1,000	0.1330	0.1780	0.040	0.1785±j0.0577	0.2324±j0.7507	930	2,130	2,600	198	256	227
3/0	19	6	16	0.449	20	420	50	55	1.641	154	50	1,053	19.7	1,007	1,000	0.1050	0.1410	0.042	0.1408±j0.0515	0.1949±j0.7464	930	2,130	2,600	227	295	259
4/0	19	6	16	0.504	20	420	50	80	1.746	195	50	1,200	21.0	1,269	1,000	0.0836	0.1120	0.045	0.1122±j0.0550	0.1661±j0.7409	930	2,130	2,600	255	338	293
250	37	6	16	0.547	20	420	50	80	1.789	230	50	1,278	21.5	1,500	1,000	0.0707	0.0950	0.048	0.0950±j0.0539	0.1490±j0.7379	930	2,130	2,600	279	374	321
350	37	7	16	0.650	20	420	50	80	1.892	322	58	1,464	22.7	2,100	1,000	0.0505	0.0680	0.053	0.0681±j0.0517	0.1220±j0.7314	1,090	2,480	3,030	336	459	386
500	37	7	14	0.773	20	420	65	80	2.071	460	92	1,825	24.9	3,000	1,000	0.0354	0.0480	0.060	0.0477±j0.0501	0.1015±j0.7233	1,740	3,960	4,830	410	575	471
750	61	10	14	0.949	27	420	65	80	2.261	690	132	2,290	27.1	4,500	1,000	0.0236	0.0320	0.069	0.0321±j0.0479	0.0857±j0.7145	2,480	5,660	6,910	511	738	587
1000	61	13	14	1.095	27	420	65	80	2.407	920	172	2,692	28.9	6,000	1,000	0.0177	0.0240	0.077	0.0244±j0.0463	0.0778±j0.7084	3,220	7,360	8,980	595	878	684
1250	91	16	14	1.228	30	420	65	80	2.546	1,150	211	3,095	30.6	7,500	1,000	0.0141	0.0200	0.084	0.0197±j0.0452	0.0730±j0.7031	3,970	9,060	11,050	671	1,009	771
1500	91	19	14	1.343	39	420	65	80	2.679	1,380	251	3,502	32.2	9,000	1,000	0.0118	0.0170	0.091	0.0168±j0.0445	0.0699±j0.6988	4,710	10,760	13,120	736	1,123	845
1/6 Neutral																										
1/0	19	6	16	0.354	20	420	50	55	1.546	97	50	923	18.6	633	1,000	0.1680	0.2260	0.037	0.2255±j0.0594	0.2794±j0.7546	930	2,130	2,600	174	223	200
2/0	19	6	16	0.398	20	420	50	55	1.590	122	50	984	19.1	799	1,000	0.1330	0.1780	0.040	0.1785±j0.0577	0.2324±j0.7507	930	2,130	2,600	198	256	227
3/0	19	7	16	0.449	20	420	50	55	1.641	154	58	1,060	19.7	1,007	1,000	0.1050	0.1410	0.042	0.1408±j0.0515	0.1949±j0.7464	1,090	2,480	3,030	227	295	259
4/0	19	9	16	0.504	20	420	50	80	1.746	195	74	1,222	21.0	1,269	1,000	0.0836	0.1120	0.045	0.1122±j0.0550	0.1661±j0.7409	1,400	3,190	3,890	255	338	293
250	37	10	16	0.547	20	420	50	80	1.789	230	83	1,307	21.5	1,500	1,000	0.0707	0.0950	0.048	0.0950±j0.0539	0.1490±j0.7379	1,550	3,550	4,330	279	374	321
350	37	9	14	0.650	20	420	50	80	1.918	322	119	1,554	23.0	2,100	1,000	0.0505	0.0680	0.053	0.0681±j0.0519	0.1220±j0.7308	2,230	5,100	6,220	336	461	386
500	37	8	12	0.773	20	420	65	80	2.105	460	167	1,939	25.3	3,000	1,000	0.0354	0.0480	0.060	0.0477±j0.0504	0.1015±j0.7226	3,140	7,170	8,740	411	577	472
750	61	19	14	0.949	27	420	65	80	2.261	690	251	2,397	27.1	4,500	1,000	0.0236	0.0320	0.069	0.0321±j0.0479	0.0857±j0.7145	4,710	10,760	13,120	511	738	587
1000	61	16	12	1.095	27	420	65	80	2.441	920	334	2,892	29.3	6,000	1,000	0.0177	0.0240	0.077	0.0244±j0.0466	0.0778±j0.7077	6,270	14,330	17,480	596	882	685
1250	91	20	12	1.228	30	420	65	80	2.580	1,150	418	3,338	31.0	7,500	1,000	0.0141	0.0200	0.084	0.0197±j0.0454	0.0730±j0.7025	7,840	17,920	21,850	673	1,013	772
1500	91	24	12	1.343	39	420	65	80	2.713	1,380	502	3,788	32.6	9,000	1,000	0.0118	0.0170	0.091	0.0168±j0.0447	0.0699±j0.6982	9,410	21,500	26,220	738	1,128	847

35kV MV-105 AL TR-XLPE 133% INS XLPE - Trefoil

Weights & Measurements															Electrical and Engineering Data - Trefoil - Single Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 105°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Amps
1/3 Neutral																											
1/0	19	6	14	0.354	20	420	50	55	1.572	97	79	977	18.9	633	1,000	0.1680	0.2260	0.037	0.2255±j0.0597	0.2794±j0.7538	1,490	3,400	4,140	175	224	200	
2/0	19	11	16	0.398	20	420	50	55	1.590	122	91	1,021	19.1	799	1,000	0.1330	0.1780	0.040	0.1785±j0.0577	0.2324±j0.7507	1,710	3,900	4,760	198	256	227	
3/0	19	14	16	0.449	20	420	50	55	1.641	154	116	1,112	19.7	1,007	1,000	0.1050	0.1410	0.042	0.1408±j0.0515	0.1949±j0.7464	2,170	4,970	6,060	227	295	259	
4/0	19	11	14	0.504	20	420	50	80	1.772	195	145	1,318	21.3	1,269	1,000	0.0836	0.1120	0.045	0.1122±j0.0553	0.1661±j0.7402	2,730	6,230	7,600	256	340	294	
250	37	13	14	0.547	20	420	50	80	1.815	230	172	1,420	21.8	1,500	1,000	0.0707	0.0950	0.048	0.0950±j0.0542	0.1490±j0.7372	3,220	7,360	8,980	280	376	322	
350	37	18	14	0.650	20	420	50	80	1.918	322	238	1,660	23.0	2,100	1,000	0.0505	0.0680	0.053	0.0681±j0.0519	0.1220±j0.7308	4,460	10,200	12,430	336	461	386	
500	37	16	12	0.773	20	420	65	80	2.105	460	334	2,089	25.3	3,000	1,000	0.0354	0.0480	0.060	0.0477±j0.0504	0.1015±j0.7226	6,270	14,330	17,480	411	577	472	
750	61	15	10	0.949	27	420	65	80	2.337	690	500	2,739	28.0	4,500	1,000	0.0236	0.0320	0.069	0.0321±j0.0485	0.0857±j0.7130	9,390	21,450	26,160	513	745	589	
1000	61	20	10	1.095	27	420	65	80	2.483	920	667	3,262	29.8	6,000	1,000	0.0177	0.0240	0.077	0.0244±j0.0469	0.0778±j0.7069	12,520	28,600	34,870	598	886	686	
1250	91	20	9	1.228	30	420	65	80	2.646	1,150	842	3,839	31.8	7,500	1,000	0.0141	0.0200	0.084	0.0196±j0.0459	0.0730±j0.7013	15,800	36,110	44,020	676	1,021	775	
1500	91	24	9	1.343	39	420	65	80	2.779	1,380	1,011	4,371	33.4	9,000	1,000	0.0118	0.0170	0.091	0.0167±j0.0452	0.0699±j0.6970	18,960	43,330	52,830	741	1,137	850	
1/2 Neutral																											
1/0	19	8	14	0.354	20	420	50	55	1.572	97	106	1,001	18.9	633	1,000	0.1680	0.2260	0.037	0.2255±j0.0597	0.2794±j0.7538	1,980	4,530	5,530	175	224	200	
2/0	19	10	14	0.398	20	420	50	55	1.616	122	132	1,087	19.4	799	1,000	0.1330	0.1780	0.040	0.1785±j0.0581	0.2324±j0.7499	2,480	5,660	6,910	198	257	228	
3/0	19	13	14	0.449	20	420	50	55	1.667	154	172	1,191	20.0	1,007	1,000	0.1050	0.1410	0.042	0.1408±j0.0518	0.1949±j0.7457	3,220	7,360	8,980	227	296	259	
4/0	19	10	12	0.504	20	420	50	80	1.806	195	209	1,415	21.7	1,269	1,000	0.0836	0.1120	0.045	0.1122±j0.0557	0.1661±j0.7394	3,920	8,960	10,920	256	341	294	
250	37	12	12	0.547	20	420	50	80	1.849	230	251	1,532	22.2	1,500	1,000	0.0707	0.0950	0.048	0.0950±j0.0545	0.1490±j0.7364	4,710	10,750	13,110	281	377	322	
350	37	11	10	0.650	20	420	50	80	1.994	322	367	1,876	23.9	2,100	1,000	0.0505	0.0680	0.053	0.0681±j0.0527	0.1220±j0.7290	6,890	15,730	19,180	338	465	388	
500	37	15	10	0.773	20	420	65	80	2.147	460	500	2,299	25.8	3,000	1,000	0.0354	0.0480	0.060	0.0477±j0.0508	0.1015±j0.7217	9,390	21,450	26,160	412	580	473	
750	61	18	9	0.949	27	420	65	80	2.361	690	758	3,010	28.3	4,500	1,000	0.0236	0.0320	0.069	0.0321±j0.0487	0.0857±j0.7125	14,220	32,490	39,620	514	747	590	
1000	61	24	9	1.095	27	420	65	80	2.507	920	1,011	3,613	30.1	6,000	1,000	0.0177	0.0240	0.077	0.0243±j0.0471	0.0778±j0.7065	18,960	43,330	52,830	599	889	687	
1250	91	24	8	1.228	30	420	65	80	2.676	1,150	1,268	4,271	32.1	7,500	1,000	0.0141	0.0200	0.084	0.0196±j0.0461	0.0730±j0.7009	23,800	54,380	66,300	677	1,024	776	
1500	91	28	8	1.343	39	420	65	80	2.809	1,380	1,480	4,844	33.7	9,000	1,000	0.0118	0.0170	0.091	0.0167±j0.0454	0.0699±j0.6966	27,770	63,440	77,350	743	1,140	851	

35kV MV-105 AL TR-XLPE 133% INS XLPE - Trefoil

Weights & Measurements															Electrical and Engineering Data - Trefoil - Single Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 105°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Amps
2/3 Neutral																											
1/0	19	11	14	0.354	20	420	50	55	1.572	97	145	1,037	18.9	633	1,000	0.1680	0.2260	0.037	0.2255±j0.0597	0.2794±j0.7538	2,730	6,230	7,600	175	224	200	
2/0	19	21	16	0.398	20	420	50	55	1.590	122	174	1,096	19.1	799	1,000	0.1330	0.1780	0.040	0.1785±j0.0577	0.2324±j0.7507	3,260	7,450	9,080	198	256	227	
3/0	19	17	14	0.449	20	420	50	55	1.667	154	225	1,238	20.0	1,007	1,000	0.1050	0.1410	0.042	0.1408±j0.0518	0.1949±j0.7457	4,210	9,630	11,740	227	296	259	
4/0	19	14	12	0.504	20	420	50	80	1.806	195	293	1,471	21.7	1,269	1,000	0.0836	0.1120	0.045	0.1122±j0.0557	0.1661±j0.7394	5,490	12,540	15,290	256	341	294	
250	37	16	12	0.547	20	420	50	80	1.849	230	334	1,607	22.2	1,500	1,000	0.0707	0.0950	0.048	0.0950±j0.0545	0.1490±j0.7364	6,270	14,330	17,480	281	377	322	
350	37	22	12	0.650	20	420	50	80	1.952	322	460	1,903	23.4	2,100	1,000	0.0505	0.0680	0.053	0.0681±j0.0523	0.1220±j0.7300	8,630	19,710	24,030	337	463	387	
500	37	20	10	0.773	20	420	65	80	2.147	460	667	2,449	25.8	3,000	1,000	0.0354	0.0480	0.060	0.0477±j0.0508	0.1015±j0.7217	12,520	28,600	34,870	412	580	473	
750	61	24	9	0.949	27	420	65	80	2.361	690	1,011	3,237	28.3	4,500	1,000	0.0236	0.0320	0.069	0.0321±j0.0487	0.0857±j0.7125	18,960	43,330	52,830	514	747	590	
1000	61	25	8	1.095	27	420	65	80	2.537	920	1,321	3,939	30.4	6,000	1,000	0.0177	0.0240	0.077	0.0243±j0.0473	0.0778±j0.7059	24,790	56,640	69,060	600	892	688	
Full Neutral																											
1/0	19	10	12	0.354	20	420	50	55	1.606	97	209	1,129	19.3	633	1,000	0.1680	0.2260	0.037	0.2255±j0.0601	0.2795±j0.7528	3,920	8,960	10,920	175	225	201	
2/0	19	13	12	0.398	20	420	50	55	1.650	122	272	1,249	19.8	799	1,000	0.1330	0.1780	0.040	0.1785±j0.0585	0.2325±j0.7490	5,100	11,650	14,200	199	258	228	
3/0	19	16	12	0.449	20	420	50	80	1.751	154	334	1,431	21.0	1,007	1,000	0.1050	0.1410	0.042	0.1408±j0.0529	0.1949±j0.7435	6,270	14,330	17,480	228	298	260	
4/0	19	13	10	0.504	20	420	50	80	1.848	195	434	1,669	22.2	1,269	1,000	0.0836	0.1120	0.045	0.1122±j0.0561	0.1663±j0.7383	8,140	18,590	22,670	257	344	295	
250	37	15	10	0.547	20	420	50	80	1.891	230	500	1,810	22.7	1,500	1,000	0.0707	0.0950	0.048	0.0950±j0.0550	0.1491±j0.7354	9,390	21,450	26,160	282	380	323	
350	37	21	10	0.650	20	420	50	80	1.994	322	701	2,176	23.9	2,100	1,000	0.0505	0.0680	0.053	0.0681±j0.0527	0.1222±j0.7290	13,140	30,030	36,620	338	465	388	
500	37	24	9	0.773	20	420	65	80	2.171	460	1,011	2,794	26.1	3,000	1,000	0.0354	0.0480	0.060	0.0477±j0.0510	0.1018±j0.7211	18,960	43,330	52,830	412	582	473	
750	61	28	8	0.949	27	420	65	80	2.391	690	1,480	3,703	28.7	4,500	1,000	0.0236	0.0320	0.069	0.0322±j0.0429	0.0857±j0.7120	27,770	63,440	77,350	515	750	591	

- All dimensions and weights are nominal and subject to normal manufacturing tolerances.
- Ampacities: In Duct: Buried in duct, earth RHO 100, 25°C ambient, 100% load factor, 39.4" burial depth, and neutral wires bonded at a single point. Free Air: 40°C ambient, 100% load factor and neutral wires bonded at a single point. Direct Burial: Ambient temperature 25°C and 39.4" burial depth, earth RHO 100, and neutral wires bonded at a single point.
- Impedance: Calculations are based on trefoil formation / earth loop / conductor temperature of 105°C.
- Jacket thickness is measured from the outermost point of the concentric neutral wire to the outermost point of the jacket.
- Other designs available upon request.
- The above parameters are for reference only, based on the technical requirements.

35kV MV-105 AL TR-XLPE 133% INS XLPE - Flat

Weights & Measurements															Electrical and Engineering Data - Flat - Single Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 105°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		AWG MCM	No. Wires	Size	In.	Mils				In.	lbs./kft					In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Amps
1/12 Neutral																											
1/0	19	6	16	0.354	20	420	50	55	1.546	97	50	923	18.6	633	1,000	0.1680	0.2260	0.037	0.2255±j0.0506	0.2794±j0.7440	930	2,130	2,600	173	228	198	
2/0	19	6	16	0.398	20	420	50	55	1.590	122	50	984	19.1	799	1,000	0.1330	0.1780	0.040	0.1785±j0.0489	0.2324±j0.7401	930	2,130	2,600	196	262	224	
3/0	19	6	16	0.449	20	420	50	55	1.641	154	50	1,053	19.7	1,007	1,000	0.1050	0.1410	0.042	0.1408±j0.0568	0.1949±j0.7358	930	2,130	2,600	224	302	256	
4/0	19	6	16	0.504	20	420	50	80	1.746	195	50	1,200	21.0	1,269	1,000	0.0836	0.1120	0.045	0.1122±j0.0461	0.1661±j0.7303	930	2,130	2,600	253	347	289	
250	37	6	16	0.547	20	420	50	80	1.789	230	50	1,278	21.5	1,500	1,000	0.0707	0.0950	0.048	0.0950±j0.0450	0.1490±j0.7273	930	2,130	2,600	277	384	317	
350	37	7	16	0.650	20	420	50	80	1.892	322	58	1,464	22.7	2,100	1,000	0.0505	0.0680	0.053	0.0681±j0.0428	0.1220±j0.7208	1,090	2,480	3,030	332	471	381	
500	37	7	14	0.773	20	420	65	80	2.071	460	92	1,825	24.9	3,000	1,000	0.0354	0.0480	0.060	0.0477±j0.0413	0.1015±j0.7127	1,740	3,960	4,830	405	590	464	
750	61	10	14	0.949	27	420	65	80	2.261	690	132	2,290	27.1	4,500	1,000	0.0236	0.0320	0.069	0.0320±j0.0390	0.0857±j0.7039	2,480	5,660	6,910	505	759	578	
1000	61	13	14	1.095	27	420	65	80	2.407	920	172	2,692	28.9	6,000	1,000	0.0177	0.0240	0.077	0.0243±j0.0375	0.0778±j0.6977	3,220	7,360	8,980	588	903	673	
1250	91	16	14	1.228	30	420	65	80	2.546	1,150	211	3,095	30.6	7,500	1,000	0.0141	0.0200	0.084	0.0195±j0.0364	0.0730±j0.6925	3,970	9,060	11,050	663	1,038	759	
1500	91	19	14	1.343	39	420	65	80	2.679	1,380	251	3,502	32.2	9,000	1,000	0.0118	0.0170	0.091	0.0166±j0.0356	0.0699±j0.6881	4,710	10,760	13,120	727	1,157	831	
1/6 Neutral																											
1/0	19	6	16	0.354	20	420	50	55	1.546	97	50	923	18.6	633	1,000	0.1680	0.2260	0.037	0.2255±j0.0506	0.2794±j0.7440	930	2,130	2,600	173	228	198	
2/0	19	6	16	0.398	20	420	50	55	1.590	122	50	984	19.1	799	1,000	0.1330	0.1780	0.040	0.1785±j0.0489	0.2324±j0.7401	930	2,130	2,600	196	262	224	
3/0	19	7	16	0.449	20	420	50	55	1.641	154	58	1,060	19.7	1,007	1,000	0.1050	0.1410	0.042	0.1408±j0.0568	0.1949±j0.7358	1,090	2,480	3,030	224	302	256	
4/0	19	9	16	0.504	20	420	50	80	1.746	195	74	1,222	21.0	1,269	1,000	0.0836	0.1120	0.045	0.1122±j0.0461	0.1661±j0.7303	1,400	3,190	3,890	253	347	289	
250	37	10	16	0.547	20	420	50	80	1.789	230	83	1,307	21.5	1,500	1,000	0.0707	0.0950	0.048	0.0950±j0.0450	0.1490±j0.7273	1,550	3,550	4,330	277	384	317	
350	37	9	14	0.650	20	420	50	80	1.918	322	119	1,554	23.0	2,100	1,000	0.0505	0.0680	0.053	0.0681±j0.0431	0.1220±j0.7202	2,230	5,100	6,220	333	473	381	
500	37	8	12	0.773	20	420	65	80	2.105	460	167	1,939	25.3	3,000	1,000	0.0354	0.0480	0.060	0.0477±j0.0416	0.1015±j0.7120	3,140	7,170	8,740	406	593	465	
750	61	19	14	0.949	27	420	65	80	2.261	690	251	2,397	27.1	4,500	1,000	0.0236	0.0320	0.069	0.0320±j0.0390	0.0857±j0.7039	4,710	10,760	13,120	505	759	578	
1000	61	16	12	1.095	27	420	65	80	2.441	920	334	2,892	29.3	6,000	1,000	0.0177	0.0240	0.077	0.0243±j0.0377	0.0778±j0.6971	6,270	14,330	17,480	589	907	674	
1250	91	20	12	1.228	30	420	65	80	2.580	1,150	418	3,338	31.0	7,500	1,000	0.0141	0.0200	0.084	0.0195±j0.0366	0.0730±j0.6919	7,840	17,920	21,850	665	1,043	760	
1500	91	24	12	1.343	39	420	65	80	2.713	1,380	502	3,788	32.6	9,000	1,000	0.0118	0.0170	0.091	0.0166±j0.0359	0.0699±j0.6876	9,410	21,500	26,220	729	1,162	833	

35kV MV-105 AL TR-XLPE 133% INS XLPE - Flat

Weights & Measurements															Electrical and Engineering Data - Flat - Single Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 105°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		AWG MCM	No. Wires	Size	In.	Mils				In.	lbs./kft					In.	lbs.				lb/ft of bend R	Ω/kft	μF/kft	Ω/kft	Ω/kft	Amps	
1/3 Neutral																											
1/0	19	6	14	0.354	20	420	50	55	1.572	97	79	977	18.9	633	1,000	0.1680	0.2260	0.037	0.2255±j0.0509	0.2794±j0.7432	1,490	3,400	4,140	173	229	198	
2/0	19	11	16	0.398	20	420	50	55	1.590	122	91	1,021	19.1	799	1,000	0.1330	0.1780	0.040	0.1785±j0.0489	0.2324±j0.7401	1,710	3,900	4,760	196	262	224	
3/0	19	14	16	0.449	20	420	50	55	1.641	154	116	1,112	19.7	1,007	1,000	0.1050	0.1410	0.042	0.1408±j0.0568	0.1949±j0.7358	2,170	4,970	6,060	224	302	256	
4/0	19	11	14	0.504	20	420	50	80	1.772	195	145	1,318	21.3	1,269	1,000	0.0836	0.1120	0.045	0.1122±j0.0465	0.1661±j0.7296	2,730	6,230	7,600	253	348	290	
250	37	13	14	0.547	20	420	50	80	1.815	230	172	1,420	21.8	1,500	1,000	0.0707	0.0950	0.048	0.0950±j0.0453	0.1490±j0.7266	3,220	7,360	8,980	277	385	317	
350	37	18	14	0.650	20	420	50	80	1.918	322	238	1,660	23.0	2,100	1,000	0.0505	0.0680	0.053	0.0681±j0.0431	0.1220±j0.7202	4,460	10,200	12,430	333	473	381	
500	37	16	12	0.773	20	420	65	80	2.105	460	334	2,089	25.3	3,000	1,000	0.0354	0.0480	0.060	0.0477±j0.0416	0.1015±j0.7120	6,270	14,330	17,480	406	593	465	
750	61	15	10	0.949	27	420	65	80	2.337	690	500	2,739	28.0	4,500	1,000	0.0236	0.0320	0.069	0.0320±j0.0397	0.0857±j0.7024	9,390	21,450	26,160	507	766	580	
1000	61	20	10	1.095	27	420	65	80	2.483	920	667	3,262	29.8	6,000	1,000	0.0177	0.0240	0.077	0.0243±j0.0381	0.0778±j0.6963	12,520	28,600	34,870	591	912	676	
1250	91	20	9	1.228	30	420	65	80	2.646	1,150	842	3,839	31.8	7,500	1,000	0.0141	0.0200	0.084	0.0195±j0.0371	0.0730±j0.6907	15,800	36,110	44,020	667	1,051	763	
1500	91	24	9	1.343	39	420	65	80	2.779	1,380	1,011	4,371	33.4	9,000	1,000	0.0118	0.0170	0.091	0.0166±j0.0363	0.0699±j0.6864	18,960	43,330	52,830	732	1,171	836	
1/2 Neutral																											
1/0	19	8	14	0.354	20	420	50	55	1.572	97	106	1,001	18.9	633	1,000	0.1680	0.2260	0.037	0.2255±j0.0509	0.2794±j0.7432	1,980	4,530	5,530	173	229	198	
2/0	19	10	14	0.398	20	420	50	55	1.616	122	132	1,087	19.4	799	1,000	0.1330	0.1780	0.040	0.1785±j0.0492	0.2324±j0.7393	2,480	5,660	6,910	196	263	225	
3/0	19	13	14	0.449	20	420	50	55	1.667	154	172	1,191	20.0	1,007	1,000	0.1050	0.1410	0.042	0.1408±j0.0571	0.1949±j0.7351	3,220	7,360	8,980	225	303	256	
4/0	19	10	12	0.504	20	420	50	80	1.806	195	209	1,415	21.7	1,269	1,000	0.0836	0.1120	0.045	0.1122±j0.0468	0.1661±j0.7287	3,920	8,960	10,920	254	350	290	
250	37	12	12	0.547	20	420	50	80	1.849	230	251	1,532	22.2	1,500	1,000	0.0707	0.0950	0.048	0.0950±j0.0457	0.1490±j0.7258	4,710	10,750	13,110	278	387	318	
350	37	11	10	0.650	20	420	50	80	1.994	322	367	1,876	23.9	2,100	1,000	0.0505	0.0680	0.053	0.0681±j0.0439	0.1220±j0.7184	6,890	15,730	19,180	335	478	383	
500	37	15	10	0.773	20	420	65	80	2.147	460	500	2,299	25.8	3,000	1,000	0.0354	0.0480	0.060	0.0477±j0.0420	0.1015±j0.7110	9,390	21,450	26,160	407	596	466	
750	61	18	9	0.949	27	420	65	80	2.361	690	758	3,010	28.3	4,500	1,000	0.0236	0.0320	0.069	0.0320±j0.0399	0.0857±j0.7019	14,220	32,490	39,620	508	768	581	
1000	61	24	9	1.095	27	420	65	80	2.507	920	1,011	3,613	30.1	6,000	1,000	0.0177	0.0240	0.077	0.0242±j0.0383	0.0778±j0.6959	18,960	43,330	52,830	592	915	677	
1250	91	24	8	1.228	30	420	65	80	2.676	1,150	1,268	4,271	32.1	7,500	1,000	0.0141	0.0200	0.084	0.0195±j0.0373	0.0730±j0.6902	23,800	54,380	66,300	669	1,054	764	
1500	91	28	8	1.343	39	420	65	80	2.809	1,380	1,480	4,844	33.7	9,000	1,000	0.0118	0.0170	0.091	0.0166±j0.0365	0.0699±j0.6860	27,770	63,440	77,350	733	1,175	837	

35kV MV-105 AL TR-XLPE 133% INS XLPE - Flat

Weights & Measurements															Electrical and Engineering Data - Flat - Single Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 105°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Amps
2/3 Neutral																											
1/0	19	11	14	0.354	20	420	50	55	1.572	97	145	1,037	18.9	633	1,000	0.1680	0.2260	0.037	0.2255±j0.0509	0.2794±j0.7432	2,730	6,230	7,600	173	229	198	
2/0	19	21	16	0.398	20	420	50	55	1.590	122	174	1,096	19.1	799	1,000	0.1330	0.1780	0.040	0.1785±j0.0489	0.2324±j0.7401	3,260	7,450	9,080	196	262	224	
3/0	19	17	14	0.449	20	420	50	55	1.667	154	225	1,238	20.0	1,007	1,000	0.1050	0.1410	0.042	0.1408±j0.0571	0.1949±j0.7351	4,210	9,630	11,740	225	303	256	
4/0	19	14	12	0.504	20	420	50	80	1.806	195	293	1,471	21.7	1,269	1,000	0.0836	0.1120	0.045	0.1122±j0.0468	0.1661±j0.7287	5,490	12,540	15,290	254	350	290	
250	37	16	12	0.547	20	420	50	80	1.849	230	334	1,607	22.2	1,500	1,000	0.0707	0.0950	0.048	0.0950±j0.0457	0.1490±j0.7258	6,270	14,330	17,480	278	387	318	
350	37	22	12	0.650	20	420	50	80	1.952	322	460	1,903	23.4	2,100	1,000	0.0505	0.0680	0.053	0.0681±j0.0434	0.1220±j0.7194	8,630	19,710	24,030	334	475	382	
500	37	20	10	0.773	20	420	65	80	2.147	460	667	2,449	25.8	3,000	1,000	0.0354	0.0480	0.060	0.0477±j0.0420	0.1015±j0.7110	12,520	28,600	34,870	407	596	466	
750	61	24	9	0.949	27	420	65	80	2.361	690	1,011	3,237	28.3	4,500	1,000	0.0236	0.0320	0.069	0.0320±j0.0399	0.0857±j0.7019	18,960	43,330	52,830	508	768	581	
1000	61	25	8	1.095	27	420	65	80	2.537	920	1,321	3,939	30.4	6,000	1,000	0.0177	0.0240	0.077	0.0242±j0.0385	0.0778±j0.6953	24,790	56,640	69,060	593	918	678	
Full Neutral																											
1/0	19	10	12	0.354	20	420	50	55	1.606	97	209	1,129	19.3	633	1,000	0.1680	0.2260	0.037	0.2255±j0.0513	0.2794±j0.7422	3,920	8,960	10,920	173	230	198	
2/0	19	13	12	0.398	20	420	50	55	1.650	122	272	1,249	19.8	799	1,000	0.1330	0.1780	0.040	0.1785±j0.0496	0.2324±j0.7383	5,100	11,650	14,200	197	264	225	
3/0	19	16	12	0.449	20	420	50	80	1.751	154	334	1,431	21.0	1,007	1,000	0.1050	0.1410	0.042	0.1408±j0.0582	0.1949±j0.7328	6,270	14,330	17,480	226	305	256	
4/0	19	13	10	0.504	20	420	50	80	1.848	195	434	1,669	22.2	1,269	1,000	0.0836	0.1120	0.045	0.1122±j0.0472	0.1661±j0.7277	8,140	18,590	22,670	255	352	291	
250	37	15	10	0.547	20	420	50	80	1.891	230	500	1,810	22.7	1,500	1,000	0.0707	0.0950	0.048	0.0950±j0.0461	0.1490±j0.7247	9,390	21,450	26,160	279	389	319	
350	37	21	10	0.650	20	420	50	80	1.994	322	701	2,176	23.9	2,100	1,000	0.0505	0.0680	0.053	0.0681±j0.0439	0.1220±j0.7184	13,140	30,030	36,620	335	478	383	
500	37	24	9	0.773	20	420	65	80	2.171	460	1,011	2,794	26.1	3,000	1,000	0.0354	0.0480	0.060	0.0477±j0.0422	0.1015±j0.7105	18,960	43,330	52,830	408	598	466	
750	61	28	8	0.949	27	420	65	80	2.391	690	1,480	3,703	28.7	4,500	1,000	0.0236	0.0320	0.069	0.0320±j0.0401	0.0857±j0.7013	27,770	63,440	77,350	509	771	582	
<ol style="list-style-type: none"> All dimensions and weights are nominal and subject to normal manufacturing tolerances. Ampacities: In Duct: Buried in duct, earth RHO 100, 25°C ambient, 100% load factor, 39.4" burial depth, and neutral wires bonded at a single point. Free Air: 40°C ambient, 100% load factor and neutral wires bonded at a single point. Direct Burial: Ambient temperature 25°C and 39.4" burial depth, earth RHO 100, and neutral wires bonded at a single point. Impedance: Calculations are based on flat formation / earth loop / conductor temperature of 105°C. Jacket thickness is measured from the outermost point of the concentric neutral wire to the outermost point of the jacket. Other designs available upon request. The above parameters are for reference only, based on the technical requirements. 																											

35kV MV-105 AL TR-XLPE 133% INS XLPE - Trefoil

Weights & Measurements															Electrical and Engineering Data - Trefoil - Both Point Impedance											
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities		
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 105°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial
		AWG MCM	No. Wires	Size	In.	Mils				In.	lbs./kft					In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft	
1/12 Neutral																										
1/0	19	6	16	0.354	20	420	50	55	1.546	97	50	923	18.6	633	1,000	0.1680	0.2260	0.037	0.2260±j0.0555	1.1055±j0.0444	930	2,130	2,600	174	223	200
2/0	19	6	16	0.398	20	420	50	55	1.590	122	50	984	19.1	799	1,000	0.1330	0.1780	0.040	0.1790±j0.0535	1.0585±j0.0425	930	2,130	2,600	198	256	227
3/0	19	6	16	0.449	20	420	50	55	1.641	154	50	1,053	19.7	1,007	1,000	0.1050	0.1410	0.042	0.1414±j0.0514	1.0209±j0.0406	930	2,130	2,600	226	295	258
4/0	19	6	16	0.504	20	420	50	80	1.746	195	50	1,200	21.0	1,269	1,000	0.0836	0.1120	0.045	0.1128±j0.0502	0.9923±j0.0388	930	2,130	2,600	255	338	293
250	37	6	16	0.547	20	420	50	80	1.789	230	50	1,278	21.5	1,500	1,000	0.0707	0.0950	0.048	0.0957±j0.0489	0.9751±j0.0376	930	2,130	2,600	279	374	321
350	37	7	16	0.650	20	420	50	80	1.892	322	58	1,464	22.7	2,100	1,000	0.0505	0.0680	0.053	0.0689±j0.0462	0.8225±j0.0343	1,090	2,480	3,030	335	458	385
500	37	7	14	0.773	20	420	65	80	2.071	460	92	1,825	24.9	3,000	1,000	0.0354	0.0480	0.060	0.0489±j0.0443	0.5222±j0.0324	1,740	3,960	4,830	407	572	468
750	61	10	14	0.949	27	420	65	80	2.261	690	132	2,290	27.1	4,500	1,000	0.0236	0.0320	0.069	0.0338±j0.0415	0.3643±j0.0284	2,480	5,660	6,910	504	731	579
1000	61	13	14	1.095	27	420	65	80	2.407	920	172	2,692	28.9	6,000	1,000	0.0177	0.0240	0.077	0.0265±j0.0396	0.2799±j0.0258	3,220	7,360	8,980	582	863	669
1250	91	16	14	1.228	30	420	65	80	2.546	1,150	211	3,095	30.6	7,500	1,000	0.0141	0.0200	0.084	0.0223±j0.0381	0.2273±j0.0240	3,970	9,060	11,050	649	983	746
1500	91	19	14	1.343	39	420	65	80	2.679	1,380	251	3,502	32.2	9,000	1,000	0.0118	0.0170	0.091	0.0198±j0.0371	0.1916±j0.0227	4,710	10,760	13,120	703	1,085	808
1/6 Neutral																										
1/0	19	6	16	0.354	20	420	50	55	1.546	97	50	923	18.6	633	1,000	0.1680	0.2260	0.037	0.2260±j0.0555	1.1055±j0.0444	930	2,130	2,600	174	223	200
2/0	19	6	16	0.398	20	420	50	55	1.590	122	50	984	19.1	799	1,000	0.1330	0.1780	0.040	0.1790±j0.0535	1.0585±j0.0425	930	2,130	2,600	198	256	227
3/0	19	7	16	0.449	20	420	50	55	1.641	154	58	1,060	19.7	1,007	1,000	0.1050	0.1410	0.042	0.1415±j0.0514	0.8952±j0.0398	1,090	2,480	3,030	226	294	258
4/0	19	9	16	0.504	20	420	50	80	1.746	195	74	1,222	21.0	1,269	1,000	0.0836	0.1120	0.045	0.1131±j0.0502	0.6989±j0.0369	1,400	3,190	3,890	255	338	292
250	37	10	16	0.547	20	420	50	80	1.789	230	83	1,307	21.5	1,500	1,000	0.0707	0.0950	0.048	0.0961±j0.0488	0.6231±j0.0352	1,550	3,550	4,330	279	373	320
350	37	9	14	0.650	20	420	50	80	1.918	322	119	1,554	23.0	2,100	1,000	0.0505	0.0680	0.053	0.0696±j0.0464	0.4371±j0.0332	2,230	5,100	6,220	334	459	384
500	37	8	12	0.773	20	420	65	80	2.105	460	167	1,939	25.3	3,000	1,000	0.0354	0.0480	0.060	0.0499±j0.0445	0.3088±j0.0318	3,140	7,170	8,740	406	572	466
750	61	19	14	0.949	27	420	65	80	2.261	690	251	2,397	27.1	4,500	1,000	0.0236	0.0320	0.069	0.0352±j0.0412	0.2070±j0.0263	4,710	10,760	13,120	498	724	573
1000	61	16	12	1.095	27	420	65	80	2.441	920	334	2,892	29.3	6,000	1,000	0.0177	0.0240	0.077	0.0284±j0.0394	0.1550±j0.0252	6,270	14,330	17,480	571	854	657
1250	91	20	12	1.228	30	420	65	80	2.580	1,150	418	3,338	31.0	7,500	1,000	0.0141	0.0200	0.084	0.0246±j0.0376	0.1242±j0.0233	7,840	17,920	21,850	630	965	725
1500	91	24	12	1.343	39	420	65	80	2.713	1,380	502	3,788	32.6	9,000	1,000	0.0118	0.0170	0.091	0.0225±j0.0363	0.1038±j0.0222	9,410	21,500	26,220	676	1,056	778

35kV MV-105 AL TR-XLPE 133% INS XLPE - Trefoil

Weights & Measurements															Electrical and Engineering Data - Trefoil - Both Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 105°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		AWG MCM	No. Wires	Size	In.	Mils				In.	lbs./kft					In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft		Ω/kft
1/3 Neutral																											
1/0	19	6	14	0.354	20	420	50	55	1.572	97	79	977	18.9	633	1,000	0.1680	0.2260	0.037	0.2264±j0.0559	0.7789±j0.0444	1,490	3,400	4,140	174	223	200	
2/0	19	11	16	0.398	20	420	50	55	1.590	122	91	1,021	19.1	799	1,000	0.1330	0.1780	0.040	0.1795±j0.0534	0.6585±j0.0398	1,710	3,900	4,760	197	255	227	
3/0	19	14	16	0.449	20	420	50	55	1.641	154	116	1,112	19.7	1,007	1,000	0.1050	0.1410	0.042	0.1422±j0.0514	0.5180±j0.0370	2,170	4,970	6,060	226	294	258	
4/0	19	11	14	0.504	20	420	50	80	1.772	195	145	1,318	21.3	1,269	1,000	0.0836	0.1120	0.045	0.1141±j0.0504	0.4141±j0.0361	2,730	6,230	7,600	255	339	292	
250	37	13	14	0.547	20	420	50	80	1.815	230	172	1,420	21.8	1,500	1,000	0.0707	0.0950	0.048	0.0972±j0.0490	0.3505±j0.0342	3,220	7,360	8,980	278	374	320	
350	37	18	14	0.650	20	420	50	80	1.918	322	238	1,660	23.0	2,100	1,000	0.0505	0.0680	0.053	0.0711±j0.0461	0.2526±j0.0308	4,460	10,200	12,430	332	457	382	
500	37	16	12	0.773	20	420	65	80	2.105	460	334	2,089	25.3	3,000	1,000	0.0354	0.0480	0.060	0.0518±j0.0440	0.1783±j0.0292	6,270	14,330	17,480	401	568	461	
750	61	15	10	0.949	27	420	65	80	2.337	690	500	2,739	28.0	4,500	1,000	0.0236	0.0320	0.069	0.0379±j0.0408	0.1197±j0.0270	9,390	21,450	26,160	489	719	562	
1000	61	20	10	1.095	27	420	65	80	2.483	920	667	3,262	29.8	6,000	1,000	0.0177	0.0240	0.077	0.0317±j0.0379	0.0901±j0.0245	12,520	28,600	34,870	552	835	635	
1250	91	20	9	1.228	30	420	65	80	2.646	1,150	842	3,839	31.8	7,500	1,000	0.0141	0.0200	0.084	0.0283±j0.0355	0.0718±j0.0233	15,800	36,110	44,020	602	935	693	
1500	91	24	9	1.343	39	420	65	80	2.779	1,380	1,011	4,371	33.4	9,000	1,000	0.0118	0.0170	0.091	0.0263±j0.0333	0.0602±j0.0222	18,960	43,330	52,830	638	1,014	735	
1/2 Neutral																											
1/0	19	8	14	0.354	20	420	50	55	1.572	97	106	1,001	18.9	633	1,000	0.1680	0.2260	0.037	0.2267±j0.0558	0.6405±j0.0430	1,980	4,530	5,530	174	223	200	
2/0	19	10	14	0.398	20	420	50	55	1.616	122	132	1,087	19.4	799	1,000	0.1330	0.1780	0.040	0.1800±j0.0538	0.5105±j0.0402	2,480	5,660	6,910	198	256	227	
3/0	19	13	14	0.449	20	420	50	55	1.667	154	172	1,191	20.0	1,007	1,000	0.1050	0.1410	0.042	0.1429±j0.0516	0.3962±j0.0372	3,220	7,360	8,980	226	295	258	
4/0	19	10	12	0.504	20	420	50	80	1.806	195	209	1,415	21.7	1,269	1,000	0.0836	0.1120	0.045	0.1148±j0.0507	0.3210±j0.0364	3,920	8,960	10,920	255	340	292	
250	37	12	12	0.547	20	420	50	80	1.849	230	251	1,532	22.2	1,500	1,000	0.0707	0.0950	0.048	0.0982±j0.0492	0.2691±j0.0345	4,710	10,750	13,110	278	375	319	
350	37	11	10	0.650	20	420	50	80	1.994	322	367	1,876	23.9	2,100	1,000	0.0505	0.0680	0.053	0.0726±j0.0465	0.1875±j0.0324	6,890	15,730	19,180	332	459	381	
500	37	15	10	0.773	20	420	65	80	2.147	460	500	2,299	25.8	3,000	1,000	0.0354	0.0480	0.060	0.0536±j0.0436	0.1353±j0.0294	9,390	21,450	26,160	398	566	458	
750	61	18	9	0.949	27	420	65	80	2.361	690	758	3,010	28.3	4,500	1,000	0.0236	0.0320	0.069	0.0402±j0.0394	0.0900±j0.0265	14,220	32,490	39,620	480	710	552	
1000	61	24	9	1.095	27	420	65	80	2.507	920	1,011	3,613	30.1	6,000	1,000	0.0177	0.0240	0.077	0.0341±j0.0356	0.0678±j0.0241	18,960	43,330	52,830	537	820	619	
1250	91	24	8	1.228	30	420	65	80	2.676	1,150	1,268	4,271	32.1	7,500	1,000	0.0141	0.0200	0.084	0.0304±j0.0324	0.0541±j0.0229	23,800	54,380	66,300	583	914	671	
1500	91	28	8	1.343	39	420	65	80	2.809	1,380	1,480	4,844	33.7	9,000	1,000	0.0118	0.0170	0.091	0.0279±j0.0299	0.0463±j0.0218	27,770	63,440	77,350	618	992	713	

35kV MV-105 AL TR-XLPE 133% INS XLPE - Trefoil

Weights & Measurements															Electrical and Engineering Data - Trefoil - Both Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness			O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities				
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu				Total	DC@ 20°C				AC@ 105°C	1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils			In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft	Ω/kft	Amps	
2/3 Neutral																											
1/0	19	11	14	0.354	20	420	50	55	1.572	97	145	1,037	18.9	633	1,000	0.1680	0.2260	0.037	0.2272±j0.0557	0.5273±j0.0417	2,730	6,230	7,600	174	223	200	
2/0	19	21	16	0.398	20	420	50	55	1.590	122	174	1,096	19.1	799	1,000	0.1330	0.1780	0.040	0.1805±j0.0533	0.4299±j0.0378	3,260	7,450	9,080	197	255	227	
3/0	19	17	14	0.449	20	420	50	55	1.667	154	225	1,238	20.0	1,007	1,000	0.1050	0.1410	0.042	0.1435±j0.0515	0.3361±j0.0364	4,210	9,630	11,740	226	295	258	
4/0	19	14	12	0.504	20	420	50	80	1.806	195	293	1,471	21.7	1,269	1,000	0.0836	0.1120	0.045	0.1156±j0.0505	0.2729±j0.0355	5,490	12,540	15,290	254	339	292	
250	37	16	12	0.547	20	420	50	80	1.849	230	334	1,607	22.2	1,500	1,000	0.0707	0.0950	0.048	0.0992±j0.0489	0.2256±j0.0336	6,270	14,330	17,480	277	374	319	
350	37	22	12	0.650	20	420	50	80	1.952	322	460	1,903	23.4	2,100	1,000	0.0505	0.0680	0.053	0.0736±j0.0455	0.1630±j0.0303	8,630	19,710	24,030	330	455	379	
500	37	20	10	0.773	20	420	65	80	2.147	460	667	2,449	25.8	3,000	1,000	0.0354	0.0480	0.060	0.0552±j0.0425	0.1134±j0.0286	12,520	28,600	34,870	394	562	453	
750	61	24	9	0.949	27	420	65	80	2.361	690	1,011	3,237	28.3	4,500	1,000	0.0236	0.0320	0.069	0.0418±j0.0374	0.0756±j0.0257	18,960	43,330	52,830	472	702	544	
1000	61	25	8	1.095	27	420	65	80	2.537	920	1,321	3,939	30.4	6,000	1,000	0.0177	0.0240	0.077	0.0353±j0.0333	0.0575±j0.0240	24,790	56,640	69,060	528	811	609	
Full Neutral																											
1/0	19	10	12	0.354	20	420	50	55	1.606	97	209	1,129	19.3	633	1,000	0.1680	0.2260	0.037	0.2280±j0.0561	0.4343±j0.0421	3,920	8,960	10,920	175	224	200	
2/0	19	13	12	0.398	20	420	50	55	1.650	122	272	1,249	19.8	799	1,000	0.1330	0.1780	0.040	0.1817±j0.0539	0.3391±j0.0392	5,100	11,650	14,200	198	257	227	
3/0	19	16	12	0.449	20	420	50	80	1.751	154	334	1,431	21.0	1,007	1,000	0.1050	0.1410	0.042	0.1450±j0.0522	0.2713±j0.0366	6,270	14,330	17,480	226	296	258	
4/0	19	13	10	0.504	20	420	50	80	1.848	195	434	1,669	22.2	1,269	1,000	0.0836	0.1120	0.045	0.1175±j0.0503	0.2132±j0.0355	8,140	18,590	22,670	254	340	291	
250	37	15	10	0.547	20	420	50	80	1.891	230	500	1,810	22.7	1,500	1,000	0.0707	0.0950	0.048	0.1010±j0.0485	0.1826±j0.0338	9,390	21,450	26,160	277	375	318	
350	37	21	10	0.650	20	420	50	80	1.994	322	701	2,176	23.9	2,100	1,000	0.0505	0.0680	0.053	0.0759±j0.0445	0.1306±j0.0304	13,140	30,030	36,620	327	455	376	
500	37	24	9	0.773	20	420	65	80	2.171	460	1,011	2,794	26.1	3,000	1,000	0.0354	0.0480	0.060	0.0575±j0.0401	0.0912±j0.0281	18,960	43,330	52,830	389	558	447	
750	61	28	8	0.949	27	420	65	80	2.391	690	1,480	3,703	28.7	4,500	1,000	0.0236	0.0320	0.069	0.0435±j0.0340	0.0617±j0.0254	27,770	63,440	77,350	464	694	534	
<ol style="list-style-type: none"> All dimensions and weights are nominal and subject to normal manufacturing tolerances. Ampacities: In Duct: Buried in duct, earth RHO 100, 25°C ambient, 100% load factor, 39.4" burial depth, and neutral wires bonded at both point. Free Air: 40°C ambient, 100% load factor and neutral wires bonded at both point. Direct Burial: Ambient temperature 25°C and 39.4" burial depth, earth RHO 100, and neutral wires bonded at both point. Impedance: Calculations are based on trefoil formation / shield loop / conductor temperature of 105°C. Jacket thickness is measured from the outermost point of the concentric neutral wire to the outermost point of the jacket. Other designs available upon request. The above parameters are for reference only, based on the technical requirements. 																											

35kV MV-105 AL TR-XLPE 133% INS XLPE - Flat

Weights & Measurements															Electrical and Engineering Data - Flat - Both Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 105°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		AWG MCM	No. Wires	Size	In.	Mils				In.	lbs./kft					In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft	Ω/kft	Amps
1/12 Neutral																											
1/0	19	6	16	0.354	20	420	50	55	1.546	97	50	923	18.6	633	1,000	0.1680	0.2260	0.037	0.2263±j0.0608	1.1055±j0.0444	930	2,130	2,600	172	228	197	
2/0	19	6	16	0.398	20	420	50	55	1.590	122	50	984	19.1	799	1,000	0.1330	0.1780	0.040	0.1793±j0.0588	1.0585±j0.0425	930	2,130	2,600	195	262	224	
3/0	19	6	16	0.449	20	420	50	55	1.641	154	50	1,053	19.7	1,007	1,000	0.1050	0.1410	0.042	0.1417±j0.0567	1.0209±j0.0406	930	2,130	2,600	224	301	255	
4/0	19	6	16	0.504	20	420	50	80	1.746	195	50	1,200	21.0	1,269	1,000	0.0836	0.1120	0.045	0.1131±j0.0555	0.9923±j0.0388	930	2,130	2,600	252	346	288	
250	37	6	16	0.547	20	420	50	80	1.789	230	50	1,278	21.5	1,500	1,000	0.0707	0.0950	0.048	0.0960±j0.0542	0.9751±j0.0376	930	2,130	2,600	275	382	315	
350	37	7	16	0.650	20	420	50	80	1.892	322	58	1,464	22.7	2,100	1,000	0.0505	0.0680	0.053	0.0692±j0.0515	0.8225±j0.0343	1,090	2,480	3,030	330	468	378	
500	37	7	14	0.773	20	420	65	80	2.071	460	92	1,825	24.9	3,000	1,000	0.0354	0.0480	0.060	0.0495±j0.0495	0.5222±j0.0324	1,740	3,960	4,830	398	583	456	
750	61	10	14	0.949	27	420	65	80	2.261	690	132	2,290	27.1	4,500	1,000	0.0236	0.0320	0.069	0.0346±j0.0467	0.3643±j0.0284	2,480	5,660	6,910	486	739	558	
1000	61	13	14	1.095	27	420	65	80	2.407	920	172	2,692	28.9	6,000	1,000	0.0177	0.0240	0.077	0.0276±j0.0447	0.2799±j0.0258	3,220	7,360	8,980	553	863	634	
1250	91	16	14	1.228	30	420	65	80	2.546	1,150	211	3,095	30.6	7,500	1,000	0.0141	0.0200	0.084	0.0236±j0.0432	0.2273±j0.0240	3,970	9,060	11,050	605	970	694	
1500	91	19	14	1.343	39	420	65	80	2.679	1,380	251	3,502	32.2	9,000	1,000	0.0118	0.0170	0.091	0.0213±j0.0421	0.1916±j0.0227	4,710	10,760	13,120	642	1,055	737	
1/6 Neutral																											
1/0	19	6	16	0.354	20	420	50	55	1.546	97	50	923	18.6	633	1,000	0.1680	0.2260	0.037	0.2263±j0.0608	1.1055±j0.0444	930	2,130	2,600	172	228	197	
2/0	19	6	16	0.398	20	420	50	55	1.590	122	50	984	19.1	799	1,000	0.1330	0.1780	0.040	0.1793±j0.0588	1.0585±j0.0425	930	2,130	2,600	195	262	224	
3/0	19	7	16	0.449	20	420	50	55	1.641	154	58	1,060	19.7	1,007	1,000	0.1050	0.1410	0.042	0.1419±j0.0567	0.8952±j0.0398	1,090	2,480	3,030	224	301	255	
4/0	19	9	16	0.504	20	420	50	80	1.746	195	74	1,222	21.0	1,269	1,000	0.0836	0.1120	0.045	0.1136±j0.0554	0.6989±j0.0369	1,400	3,190	3,890	251	345	288	
250	37	10	16	0.547	20	420	50	80	1.789	230	83	1,307	21.5	1,500	1,000	0.0707	0.0950	0.048	0.0966±j0.0541	0.6231±j0.0352	1,550	3,550	4,330	274	381	314	
350	37	9	14	0.650	20	420	50	80	1.918	322	119	1,554	23.0	2,100	1,000	0.0505	0.0680	0.053	0.0704±j0.0517	0.4371±j0.0332	2,230	5,100	6,220	327	467	375	
500	37	8	12	0.773	20	420	65	80	2.105	460	167	1,939	25.3	3,000	1,000	0.0354	0.0480	0.060	0.0509±j0.0497	0.3088±j0.0318	3,140	7,170	8,740	393	579	451	
750	61	19	14	0.949	27	420	65	80	2.261	690	251	2,397	27.1	4,500	1,000	0.0236	0.0320	0.069	0.0367±j0.0462	0.2070±j0.0263	4,710	10,760	13,120	471	722	541	
1000	61	16	12	1.095	27	420	65	80	2.441	920	334	2,892	29.3	6,000	1,000	0.0177	0.0240	0.077	0.0304±j0.0441	0.1550±j0.0252	6,270	14,330	17,480	525	834	603	
1250	91	20	12	1.228	30	420	65	80	2.580	1,150	418	3,338	31.0	7,500	1,000	0.0141	0.0200	0.084	0.0269±j0.0421	0.1242±j0.0233	7,840	17,920	21,850	563	921	647	
1500	91	24	12	1.343	39	420	65	80	2.713	1,380	502	3,788	32.6	9,000	1,000	0.0118	0.0170	0.091	0.0251±j0.0404	0.1038±j0.0222	9,410	21,500	26,220	586	986	674	

35kV MV-105 AL TR-XLPE 133% INS XLPE - Flat

Weights & Measurements															Electrical and Engineering Data - Flat - Both Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 105°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft	μF/kft	Ω/kft	Ω/kft	Amps	
1/3 Neutral																											
1/0	19	6	14	0.354	20	420	50	55	1.572	97	79	977	18.9	633	1,000	0.1680	0.2260	0.037	0.2269±j0.0611	0.7789±j0.0444	1,490	3,400	4,140	172	228	197	
2/0	19	11	16	0.398	20	420	50	55	1.590	122	91	1,021	19.1	799	1,000	0.1330	0.1780	0.040	0.1801±j0.0587	0.6585±j0.0398	1,710	3,900	4,760	195	261	223	
3/0	19	14	16	0.449	20	420	50	55	1.641	154	116	1,112	19.7	1,007	1,000	0.1050	0.1410	0.042	0.1430±j0.0566	0.5180±j0.0370	2,170	4,970	6,060	223	301	254	
4/0	19	11	14	0.504	20	420	50	80	1.772	195	145	1,318	21.3	1,269	1,000	0.0836	0.1120	0.045	0.1150±j0.0556	0.4141±j0.0361	2,730	6,230	7,600	250	345	286	
250	37	13	14	0.547	20	420	50	80	1.815	230	172	1,420	21.8	1,500	1,000	0.0707	0.0950	0.048	0.0983±j0.0541	0.3505±j0.0342	3,220	7,360	8,980	273	381	312	
350	37	18	14	0.650	20	420	50	80	1.918	322	238	1,660	23.0	2,100	1,000	0.0505	0.0680	0.053	0.0725±j0.0511	0.2526±j0.0308	4,460	10,200	12,430	322	462	370	
500	37	16	12	0.773	20	420	65	80	2.105	460	334	2,089	25.3	3,000	1,000	0.0354	0.0480	0.060	0.0538±j0.0487	0.1783±j0.0292	6,270	14,330	17,480	382	567	438	
750	61	15	10	0.949	27	420	65	80	2.337	690	500	2,739	28.0	4,500	1,000	0.0236	0.0320	0.069	0.0406±j0.0449	0.1197±j0.0270	9,390	21,450	26,160	447	699	514	
1000	61	20	10	1.095	27	420	65	80	2.483	920	667	3,262	29.8	6,000	1,000	0.0177	0.0240	0.077	0.0348±j0.0413	0.0901±j0.0245	12,520	28,600	34,870	487	790	560	
1250	91	20	9	1.228	30	420	65	80	2.646	1,150	842	3,839	31.8	7,500	1,000	0.0141	0.0200	0.084	0.0317±j0.0381	0.0718±j0.0233	15,800	36,110	44,020	515	863	592	
1500	91	24	9	1.343	39	420	65	80	2.779	1,380	1,011	4,371	33.4	9,000	1,000	0.0118	0.0170	0.091	0.0297±j0.0352	0.0602±j0.0222	18,960	43,330	52,830	535	920	615	
1/2 Neutral																											
1/0	19	8	14	0.354	20	420	50	55	1.572	97	106	1,001	18.9	633	1,000	0.1680	0.2260	0.037	0.2274±j0.0611	0.6405±j0.0430	1,980	4,530	5,530	172	228	197	
2/0	19	10	14	0.398	20	420	50	55	1.616	122	132	1,087	19.4	799	1,000	0.1330	0.1780	0.040	0.1808±j0.0590	0.5105±j0.0402	2,480	5,660	6,910	195	262	223	
3/0	19	13	14	0.449	20	420	50	55	1.667	154	172	1,191	20.0	1,007	1,000	0.1050	0.1410	0.042	0.1439±j0.0568	0.3962±j0.0372	3,220	7,360	8,980	222	301	253	
4/0	19	10	12	0.504	20	420	50	80	1.806	195	209	1,415	21.7	1,269	1,000	0.0836	0.1120	0.045	0.1162±j0.0557	0.3210±j0.0364	3,920	8,960	10,920	249	346	286	
250	37	12	12	0.547	20	420	50	80	1.849	230	251	1,532	22.2	1,500	1,000	0.0707	0.0950	0.048	0.0997±j0.0542	0.2691±j0.0345	4,710	10,750	13,110	271	380	311	
350	37	11	10	0.650	20	420	50	80	1.994	322	367	1,876	23.9	2,100	1,000	0.0505	0.0680	0.053	0.0747±j0.0511	0.1875±j0.0324	6,890	15,730	19,180	319	462	365	
500	37	15	10	0.773	20	420	65	80	2.147	460	500	2,299	25.8	3,000	1,000	0.0354	0.0480	0.060	0.0563±j0.0477	0.1353±j0.0294	9,390	21,450	26,160	373	560	428	
750	61	18	9	0.949	27	420	65	80	2.361	690	758	3,010	28.3	4,500	1,000	0.0236	0.0320	0.069	0.0435±j0.0423	0.0900±j0.0265	14,220	32,490	39,620	431	681	495	
1000	61	24	9	1.095	27	420	65	80	2.507	920	1,011	3,613	30.1	6,000	1,000	0.0177	0.0240	0.077	0.0375±j0.0374	0.0678±j0.0241	18,960	43,330	52,830	468	767	539	
1250	91	24	8	1.228	30	420	65	80	2.676	1,150	1,268	4,271	32.1	7,500	1,000	0.0141	0.0200	0.084	0.0336±j0.0333	0.0541±j0.0229	23,800	54,380	66,300	498	843	573	
1500	91	28	8	1.343	39	420	65	80	2.809	1,380	1,480	4,844	33.7	9,000	1,000	0.0118	0.0170	0.091	0.0309±j0.0303	0.0463±j0.0218	27,770	63,440	77,350	523	906	602	

35kV MV-105 AL TR-XLPE 133% INS XLPE - Flat

Weights & Measurements															Electrical and Engineering Data - Flat - Both Point Impedance												
Cond. Size	Strands	Neutral		Dia.	Thickness				O. D.	Weight			Min. Bend R	Max. Pull T	Max. Sidewall Bearing Pressure	Resistance		Capacitance	Positive Sequence Impedance	Zero Sequence Impedance	Shield Short-Circuit Current			Allowable Ampacities			
				Cond.	Cond. Shield	Insul.	Insul. Shield	Jacket	Jacket	Al	Cu	Total				DC@ 20°C	AC@ 105°C				1 sec / 200°C	0.267 sec / 250°C	0.267 sec / 350°C	In Duct	Free Air	Direct Burial	
		No. Wires	Size	In.	Mils				In.	lbs./kft						In.	lbs.				lb/ft of bend R	Ω/kft		μF/kft	Ω/kft	Ω/kft	Amps
2/3 Neutral																											
1/0	19	11	14	0.354	20	420	50	55	1.572	97	145	1,037	18.9	633	1,000	0.1680	0.2260	0.037	0.2281±j0.0610	0.5273±j0.0417	2,730	6,230	7,600	172	228	197	
2/0	19	21	16	0.398	20	420	50	55	1.590	122	174	1,096	19.1	799	1,000	0.1330	0.1780	0.040	0.1816±j0.0584	0.4299±j0.0378	3,260	7,450	9,080	194	260	223	
3/0	19	17	14	0.449	20	420	50	55	1.667	154	225	1,238	20.0	1,007	1,000	0.1050	0.1410	0.042	0.1449±j0.0565	0.3361±j0.0364	4,210	9,630	11,740	222	300	253	
4/0	19	14	12	0.504	20	420	50	80	1.806	195	293	1,471	21.7	1,269	1,000	0.0836	0.1120	0.045	0.1173±j0.0554	0.2729±j0.0355	5,490	12,540	15,290	248	345	284	
250	37	16	12	0.547	20	420	50	80	1.849	230	334	1,607	22.2	1,500	1,000	0.0707	0.0950	0.048	0.1012±j0.0536	0.2256±j0.0336	6,270	14,330	17,480	269	378	308	
350	37	22	12	0.650	20	420	50	80	1.952	322	460	1,903	23.4	2,100	1,000	0.0505	0.0680	0.053	0.0762±j0.0498	0.1630±j0.0303	8,630	19,710	24,030	315	456	361	
500	37	20	10	0.773	20	420	65	80	2.147	460	667	2,449	25.8	3,000	1,000	0.0354	0.0480	0.060	0.0583±j0.0458	0.1134±j0.0286	12,520	28,600	34,870	366	552	420	
750	61	24	9	0.949	27	420	65	80	2.361	690	1,011	3,237	28.3	4,500	1,000	0.0236	0.0320	0.069	0.0453±j0.0393	0.0756±j0.0257	18,960	43,330	52,830	421	669	485	
1000	61	25	8	1.095	27	420	65	80	2.537	920	1,321	3,939	30.4	6,000	1,000	0.0177	0.0240	0.077	0.0385±j0.0341	0.0575±j0.0240	24,790	56,640	69,060	461	760	531	
Full Neutral																											
1/0	19	10	12	0.354	20	420	50	55	1.606	97	209	1,129	19.3	633	1,000	0.1680	0.2260	0.037	0.2292±j0.0612	0.4343±j0.0421	3,920	8,960	10,920	172	229	197	
2/0	19	13	12	0.398	20	420	50	55	1.650	122	272	1,249	19.8	799	1,000	0.1330	0.1780	0.040	0.1833±j0.0588	0.3391±j0.0392	5,100	11,650	14,200	194	262	222	
3/0	19	16	12	0.449	20	420	50	80	1.751	154	334	1,431	21.0	1,007	1,000	0.1050	0.1410	0.042	0.1470±j0.0568	0.2713±j0.0366	6,270	14,330	17,480	221	301	251	
4/0	19	13	10	0.504	20	420	50	80	1.848	195	434	1,669	22.2	1,269	1,000	0.0836	0.1120	0.045	0.1199±j0.0546	0.2132±j0.0355	8,140	18,590	22,670	246	344	282	
250	37	15	10	0.547	20	420	50	80	1.891	230	500	1,810	22.7	1,500	1,000	0.0707	0.0950	0.048	0.1037±j0.0526	0.1826±j0.0338	9,390	21,450	26,160	266	377	305	
350	37	21	10	0.650	20	420	50	80	1.994	322	701	2,176	23.9	2,100	1,000	0.0505	0.0680	0.053	0.0791±j0.0476	0.1306±j0.0304	13,140	30,030	36,620	309	451	355	
500	37	24	9	0.773	20	420	65	80	2.171	460	1,011	2,794	26.1	3,000	1,000	0.0354	0.0480	0.060	0.0610±j0.0420	0.0912±j0.0281	18,960	43,330	52,830	357	543	410	
750	61	28	8	0.949	27	420	65	80	2.391	690	1,480	3,703	28.7	4,500	1,000	0.0236	0.0320	0.069	0.0464±j0.0344	0.0617±j0.0254	27,770	63,440	77,350	416	664	478	
<ol style="list-style-type: none"> All dimensions and weights are nominal and subject to normal manufacturing tolerances. Ampacities: In Duct: Buried in duct, earth RHO 100, 25°C ambient, 100% load factor, 39.4" burial depth, and neutral wires bonded at both point. Free Air: 40°C ambient, 100% load factor and neutral wires bonded at both point. Direct Burial: Ambient temperature 25°C and 39.4" burial depth, earth RHO 100, and neutral wires bonded at both point. Impedance: Calculations are based on flat formation / shield loop / conductor temperature of 105°C. Jacket thickness is measured from the outermost point of the concentric neutral wire to the outermost point of the jacket. Other designs available upon request. The above parameters are for reference only, based on the technical requirements. 																											



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