

Primary UD TR-XLPE Insulated, Concentric Neutral

5 kV – 46 kV

CME[®]
wire and cable

A Viakable Company

Features

Low tension stripping compounds.

True Triple extrusion system and closed handling raw materials system, to eliminate any contact with ambient, until extrusion of insulation and shields.

Sealed conductor passes the production water penetration tests per ICEA-T-31-610 at 15 psi for 60 minutes.

Application

Underground primary residential and commercial distribution circuits.

May be used in wet or dry locations, installed in underground ducts or direct burial.

Standards

ICEA S-94-649

Standard for Concentric Neutral Rated Cables 5 kV– 46 kV.

AEIC CS8

Specifications for Extruded Dielectric, Shielded Power Cable, rated 5 kV – 46 kV.

Specifications

Maximum operating voltage:

- 5 kV – 46 kV, 100% and 133% IL

Maximum conductor operation temperatures:

Wet and dry locations

- Normal: 105 °C
- Emergency: 140 °C
- Short Circuit: 250 °C

Engineering Information

1. Conductor: Soft annealed uncoated copper Class B compressed or unilay compressed per ASTM B8 or hard drawn aluminum Class B compressed or unilay compressed stranding per ASTM B231.

On request, strand filled.

Sizes: 8 AWG – 1000 kcmil.

On request, larger sizes available.

2. Conductor Shield: Semi conducting cross-linked polyethylene (XLPE).

On request, super clean and super smooth materials.

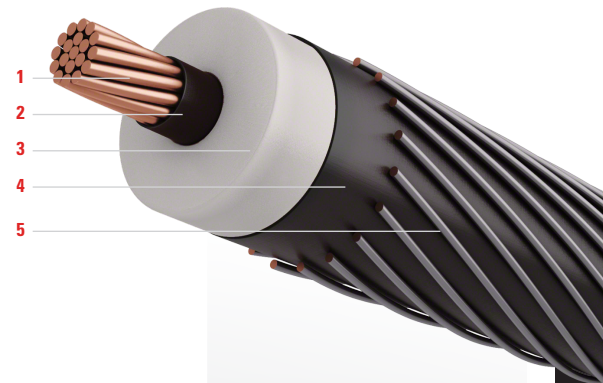
3. Insulation: Thermoset tree-retardant cross-linked polyethylene (TR-XLPE).

4. Insulation Shield: Semi conducting cross-linked polyethylene (XLPE).

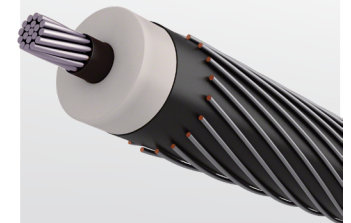
5. Concentric Neutral: Tinned coated soft annealed solid copper wires per ASTM B3 and B33, helically applied and uniformly spaced.

Full or 1/3 Neutral.

On request, a Contrahelical Wire can be applied per customer request.



COPPER
CONDUCTOR



ALUMINUM
CONDUCTOR

Technical Data

5 kV TR-XLPE Insulated

Size AWG or kcmil	Number of Strands	Nominal OD Over Insulation in	1/3 Neutral				Full Neutral			
			Number of Wires	Size	Approximate Outside Diameter	Approximate Net Weight	Number of Wires	Size	Approximate Outside Diameter	Approximate Net Weight
				AWG	in	lb/kft		AWG	in	lb/kft
Copper 100% Insulation Level (90 mil)										
2	7	0.50	6	14	0.70	375	16	14	0.70	509
1	19	0.54	7	14	0.74	449	13	12	0.77	632
1/0	19	0.58	9	14	0.78	552	16	12	0.81	772
2/0	19	0.63	11	14	0.82	674	13	10	0.90	967
3/0	19	0.68	14	14	0.87	833	16	10	0.95	1187
4/0	19	0.73	18	14	0.93	1035	16	9	1.03	1476
250	37	0.79	13	12	1.02	1201	—	—	—	—
350	37	0.89	18	12	1.12	1639	—	—	—	—
500	37	1.02	17	10	1.32	2345	—	—	—	—
750	61	1.21	20	9	1.53	3440	—	—	—	—
1000	61	1.36	26	9	1.68	4504	—	—	—	—
Aluminum 100% Insulation Level (90 mil)										
2	1	0.48	6	14	0.67	221	10	14	0.67	275
2	7	0.50	6	14	0.70	232	10	14	0.70	285
1	19	0.54	6	14	0.74	255	13	14	0.74	349
1/0	1	0.54	6	14	0.74	270	16	14	0.74	404
1/0	19	0.58	6	14	0.78	284	16	14	0.78	418
2/0	19	0.62	7	14	0.82	333	13	12	0.86	516
3/0	19	0.67	9	14	0.87	404	16	12	0.91	624
4/0	19	0.73	11	14	0.93	485	13	10	1.00	778
250	37	0.79	13	14	0.98	559	16	10	1.06	927
350	37	0.89	18	14	1.09	743	16	9	1.19	1185
500	37	1.02	16	12	1.27	1031	29	10	1.31	1672
750	61	1.22	15	10	1.52	1493	—	—	—	—
1000	61	1.37	16	9	1.69	1941	—	—	—	—

The above data are approximate and subject to normal manufacturing tolerances. Other sizes available upon request.

Ampacities: Refer to beginning of section.

Technical Data *continued*

8 kV TR-XLPE Insulated

Size AWG or kcmil	Number of Strands	Nominal OD Over Insulation in	1/3 Neutral				Full Neutral			
			Number of Wires	Size	Approximate Outside Diameter in	Approximate Net Weight lb/kft	Number of Wires	Size	Approximate Outside Diameter in	Approximate Net Weight lb/kft
				AWG				AWG		
Copper 100% Insulation Level (115 mil)										
2	7	0.55	6	14	0.75	395	16	14	0.75	529
1	19	0.59	7	14	0.79	470	13	12	0.83	653
1/0	19	0.63	9	14	0.83	575	16	12	0.87	794
2/0	19	0.68	11	14	0.88	698	13	10	0.95	990
3/0	19	0.73	14	14	0.93	858	16	10	1.00	1212
4/0	19	0.78	18	14	0.98	1062	16	9	1.08	1503
250	37	0.84	13	12	1.07	1229	—	—	—	—
350	37	0.94	18	12	1.17	1671	—	—	—	—
500	37	1.07	17	10	1.37	2382	—	—	—	—
750	61	1.26	20	9	1.58	3483	—	—	—	—
1000	61	1.41	26	9	1.73	4552	—	—	—	—
Aluminum 100% Insulation Level (115 mil)										
2	1	0.53	6	14	0.72	240	10	14	0.72	293
2	7	0.55	6	14	0.75	251	10	14	0.75	305
1	19	0.59	6	14	0.79	276	13	14	0.79	369
1/0	1	0.59	6	14	0.79	291	16	14	0.79	425
1/0	19	0.63	6	14	0.83	306	16	14	0.83	440
2/0	19	0.68	7	14	0.87	357	13	12	0.91	540
3/0	19	0.73	9	14	0.92	429	16	12	0.96	649
4/0	19	0.78	11	14	0.98	512	13	10	1.05	805
250	37	0.84	13	14	1.04	588	16	10	1.11	955
350	37	0.94	18	14	1.14	775	16	9	1.24	1216
500	37	1.07	16	12	1.32	1068	29	10	1.36	1709
750	61	1.27	15	10	1.57	1536	—	—	—	—
1000	61	1.42	16	9	1.74	1988	—	—	—	—

The above data are approximate and subject to normal manufacturing tolerances. Other sizes available upon request.
Ampacities: Refer to beginning of section.

Technical Data *continued*

15 kV TR-XLPE Insulated

Size AWG or kcmil	Number of Strands	Nominal OD Over Insulation in	1/3 Neutral				Full Neutral			
			Number of Wires	Size	Approximate Outside Diameter	Approximate Net Weight	Number of Wires	Size	Approximate Outside Diameter	Approximate Net Weight
				AWG	in	lb/kft		AWG	in	lb/kft
Copper 100% Insulation Level (175 mil)										
2	7	0.68	6	14	0.88	449	16	14	0.88	583
1	19	0.71	7	14	0.91	527	13	12	0.95	710
1/0	19	0.75	9	14	0.95	635	16	12	0.99	855
2/0	19	0.80	11	14	1.00	761	13	10	1.07	1054
3/0	19	0.85	14	14	1.05	926	16	10	1.12	1279
4/0	19	0.90	18	14	1.10	1133	16	9	1.20	1575
250	37	0.96	13	12	1.19	1305	—	—	—	—
350	37	1.06	18	12	1.32	1776	—	—	—	—
500	37	1.19	17	10	1.49	2478	—	—	—	—
750	61	1.38	20	9	1.71	3593	—	—	—	—
1000	61	1.53	26	9	1.89	4715	—	—	—	—
1000	61	1.53	26	9	2.12	5170	—	—	—	—
Aluminum 100% Insulation Level (175 mil)										
2	1	0.65	6	14	0.85	291	10	14	0.85	345
2	7	0.67	6	14	0.87	304	10	14	0.87	358
1	19	0.71	6	14	0.91	332	13	14	0.91	426
1/0	1	0.72	6	14	0.91	347	16	14	0.91	482
1/0	19	0.75	6	14	0.95	365	16	14	0.95	499
2/0	19	0.80	7	14	0.99	419	13	12	1.03	602
3/0	19	0.85	9	14	1.04	495	16	12	1.08	715
4/0	19	0.90	11	14	1.10	582	13	10	1.18	875
250	37	0.96	13	14	1.16	663	16	10	1.23	1030
350	37	1.06	18	14	1.28	878	16	9	1.38	1320
500	37	1.19	16	12	1.44	1162	29	10	1.49	1804
750	61	1.40	15	10	1.69	1647	—	—	—	—
1000	61	1.54	16	9	1.90	2150	—	—	—	—

The above data are approximate and subject to normal manufacturing tolerances. Other sizes available upon request.

Ampacities: Refer to beginning of section.

Technical Data *continued*

15 kV TR-XLPE Insulated

Size AWG or kcmil	Number of Strands	Nominal OD Over Insulation in	1/3 Neutral				Full Neutral			
			Number of Wires	Size	Approximate Outside Diameter in	Approximate Net Weight lb/kft	Number of Wires	Size	Approximate Outside Diameter in	Approximate Net Weight lb/kft
				AWG				AWG		
Copper 133% Insulation Level (220 mil)										
2	7	0.77	6	14	0.97	496	16	14	0.97	630
1	19	0.81	7	14	1.01	576	13	12	1.04	759
1/0	19	0.85	9	14	1.05	686	16	12	1.08	906
2/0	19	0.89	11	14	1.09	815	13	10	1.17	1108
3/0	19	0.94	14	14	1.14	982	16	10	1.22	1336
4/0	19	1.00	18	14	1.20	1193	16	9	1.30	1635
250	37	1.05	13	12	1.31	1390	—	—	—	—
350	37	1.16	18	12	1.41	1847	—	—	—	—
500	37	1.28	17	10	1.58	2556	—	—	—	—
750	61	1.47	20	9	1.80	3682	—	—	—	—
1000	61	1.62	26	9	1.98	4815	—	—	—	—
Aluminum 133% Insulation Level (220 mil)										
2	1	0.74	6	14	0.94	336	10	14	0.94	389
2	7	0.76	6	14	0.96	350	10	14	0.96	404
1	19	0.80	6	14	1.00	380	13	14	1.00	474
1/0	1	0.81	6	14	1.00	396	16	14	1.00	530
1/0	19	0.84	6	14	1.04	415	16	14	1.04	550
2/0	19	0.89	7	14	1.08	472	13	12	1.12	655
3/0	19	0.94	9	14	1.13	551	16	12	1.17	771
4/0	19	0.99	11	14	1.19	641	13	10	1.27	934
250	37	1.05	13	14	1.27	745	16	10	1.35	1113
350	37	1.15	18	14	1.37	948	16	9	1.47	1389
500	37	1.28	16	12	1.53	1239	29	10	1.58	1881
750	61	1.49	15	10	1.78	1735	—	—	—	—
1000	61	1.64	16	9	1.99	2250	—	—	—	—

The above data are approximate and subject to normal manufacturing tolerances. Other sizes available upon request.

Amcapacities: Refer to beginning of section.

Technical Data *continued*

25 kV TR-XLPE Insulated

Size AWG or kcmil	Number of Strands	Nominal OD Over Insulation in	1/3 Neutral				Full Neutral			
			Number of Wires	Size	Approximate Outside Diameter	Approximate Net Weight	Number of Wires	Size	Approximate Outside Diameter	Approximate Net Weight
				AWG	in	lb/kft		AWG	in	lb/kft
Copper 100% Insulation Level (260 mil)										
1	19	0.89	7	14	1.09	624	13	12	1.12	807
1/0	19	0.93	9	14	1.13	736	16	12	1.16	956
2/0	19	0.97	11	14	1.17	867	13	10	1.25	1160
3/0	19	1.02	14	14	1.24	1057	16	10	1.32	1411
4/0	19	1.08	18	14	1.30	1272	16	9	1.40	1714
250	37	1.13	13	12	1.39	1452	—	—	—	—
350	37	1.24	18	12	1.49	1914	—	—	—	—
500	37	1.37	17	10	1.66	2630	—	—	—	—
750	61	1.56	20	9	1.91	3808	—	—	—	—
1000	61	1.70	26	9	2.06	4908	—	—	—	—
Aluminum 100% Insulation Level (260 mil)										
1	19	0.88	6	14	1.08	427	13	14	1.08	521
1/0	1	0.89	6	14	1.08	443	16	14	1.08	577
1/0	19	0.92	6	14	1.12	465	16	14	1.12	599
2/0	19	0.97	7	14	1.17	524	13	12	1.20	707
3/0	19	1.02	9	14	1.24	624	16	12	1.27	845
4/0	19	1.07	11	14	1.29	719	13	10	1.37	1012
250	37	1.13	13	14	1.35	806	16	10	1.43	1174
350	37	1.23	18	14	1.45	1014	16	9	1.55	1455
500	37	1.36	16	12	1.62	1312	29	10	1.66	1954
750	61	1.57	15	10	1.89	1859	—	—	—	—
1000	61	1.72	16	9	2.07	2342	—	—	—	—

The above data are approximate and subject to normal manufacturing tolerances. Other sizes available upon request.
Ampacities: Refer to beginning of section.

Technical Data *continued*

25 kV TR-XLPE Insulated

Size AWG or kcmil	Number of Strands	Nominal OD Over Insulation in	1/3 Neutral				Full Neutral			
			Number of Wires	Size	Approximate Outside Diameter in	Approximate Net Weight lb/kft	Number of Wires	Size	Approximate Outside Diameter in	Approximate Net Weight lb/kft
				AWG				AWG		
Copper 133% Insulation Level (320 mil)										
1	19	1.01	7	14	1.22	710	13	12	1.24	887
1/0	19	1.05	9	14	1.28	846	16	12	1.31	1060
2/0	19	1.09	11	14	1.32	982	13	10	1.39	1268
3/0	19	1.14	14	14	1.37	1156	16	10	1.44	1503
4/0	19	1.20	18	14	1.43	1376	16	9	1.52	1810
250	37	1.26	13	12	1.52	1560	—	—	—	—
350	37	1.36	18	12	1.62	2030	—	—	—	—
500	37	1.49	17	10	1.79	2756	—	—	—	—
750	61	1.68	20	9	2.04	3953	—	—	—	—
1000	61	1.83	26	9	2.19	5065	—	—	—	—
Aluminum 133% Insulation Level (320 mil)										
1	19	1.01	6	14	1.20	506	13	14	1.20	599
1/0	1	1.01	6	14	1.21	522	16	14	1.21	656
1/0	19	1.05	6	14	1.27	566	16	14	1.27	700
2/0	19	1.09	7	14	1.31	629	13	12	1.34	812
3/0	19	1.14	9	14	1.36	715	16	12	1.39	935
4/0	19	1.20	11	14	1.42	814	13	10	1.49	1107
250	37	1.25	13	14	1.47	906	16	10	1.55	1273
350	37	1.35	18	14	1.57	1121	16	9	1.67	1563
500	37	1.48	16	12	1.74	1429	29	10	1.78	2070
750	61	1.69	15	10	2.01	1995	—	—	—	—
1000	61	1.84	16	9	2.19	2489	—	—	—	—

The above data are approximate and subject to normal manufacturing tolerances. Other sizes available upon request.
Amcapities: Refer to beginning of section.

Technical Data *continued*

35 kV TR-XLPE Insulated

Size AWG or kcmil	Number of Strands	Nominal OD Over Insulation in	1/3 Neutral				Full Neutral			
			Number of Wires	Size	Approximate Outside Diameter	Approximate Net Weight	Number of Wires	Size	Approximate Outside Diameter	Approximate Net Weight
				AWG	in	lb/kft		AWG	in	lb/kft
Copper 100% Insulation Level (345 mil)										
1/0	19	1.10	9	14	1.33	884	16	12	1.36	1098
2/0	19	1.15	11	14	1.37	1021	13	10	1.44	1307
3/0	19	1.20	14	14	1.42	1198	16	10	1.49	1545
4/0	19	1.25	18	14	1.48	1419	16	9	1.57	1853
250	37	1.31	13	12	1.57	1605	—	—	—	—
350	37	1.41	18	12	1.67	2079	—	—	—	—
500	37	1.54	17	10	1.87	2850	—	—	—	—
750	61	1.73	20	9	2.09	4013	—	—	—	—
1000	61	1.88	26	9	2.24	5129	—	—	—	—
Aluminum 100% Insulation Level (345 mil)										
1/0	1	1.06	6	14	1.28	578	16	14	1.28	712
1/0	19	1.10	6	14	1.32	604	16	14	1.32	738
2/0	19	1.14	7	14	1.36	668	13	12	1.39	851
3/0	19	1.19	9	14	1.41	756	16	12	1.44	976
4/0	19	1.25	11	14	1.47	856	13	10	1.54	1149
250	37	1.30	13	14	1.52	950	16	10	1.60	1317
350	37	1.40	18	14	1.62	1169	16	9	1.73	1610
500	37	1.53	16	12	1.82	1521	29	10	1.86	2162
750	61	1.74	15	10	2.07	2054	—	—	—	—
1000	61	1.89	16	9	2.24	2553	—	—	—	—

The above data are approximate and subject to normal manufacturing tolerances. Other sizes available upon request.
Ampacities: Refer to beginning of section.

Technical Data *continued*

35 kV TR-XLPE Insulated

Size AWG or kcmil	Number of Strands	Nominal OD Over Insulation in	1/3 Neutral				Full Neutral			
			Number of Wires	Size	Approximate Outside Diameter in	Approximate Net Weight lb/kft	Number of Wires	Size	Approximate Outside Diameter in	Approximate Net Weight lb/kft
				AWG				AWG		
Copper 133% Insulation Level (420 mil)										
1/0	19	1.25	9	14	1.48	1002	16	12	1.51	1222
2/0	19	1.30	11	14	1.52	1144	13	10	1.60	1436
3/0	19	1.35	14	14	1.57	1324	16	10	1.65	1678
4/0	19	1.40	18	14	1.63	1551	16	9	1.73	1992
250	37	1.46	13	12	1.72	1742	—	—	—	—
350	37	1.56	18	12	1.85	2267	—	—	—	—
500	37	1.69	17	10	2.02	3012	—	—	—	—
750	61	1.88	20	9	2.24	4192	—	—	—	—
1000	61	2.03	26	9	2.39	5323	—	—	—	—
Aluminum 133% Insulation Level (420 mil)										
1/0	19	1.25	6	14	1.47	726	16	14	1.47	860
2/0	19	1.29	7	14	1.51	795	13	12	1.54	978
3/0	19	1.34	9	14	1.56	887	16	12	1.59	1107
4/0	19	1.40	11	14	1.62	993	13	10	1.69	1285
250	37	1.45	13	14	1.67	1092	16	10	1.75	1459
350	37	1.56	18	14	1.81	1361	16	9	1.91	1802
500	37	1.68	16	12	1.97	1688	29	10	2.01	2329
750	61	1.89	15	10	2.22	2241	—	—	—	—
1000	61	2.04	16	9	2.39	2754	—	—	—	—

The above data are approximate and subject to normal manufacturing tolerances. Other sizes available upon request.
Ampacities: Refer to beginning of section.

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