

Primary UD EPR Insulated, Concentric Neutral

5 kV – 46 kV

CME[®]
wire and cable

A Viakable Company

Features

Low tension stripping compounds.

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

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

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 – 46 kV.

AEIC CS8

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

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

On request, super-clean and super-smooth materials.

3. Insulation: Thermoset ethylene propylene rubber (EPR).

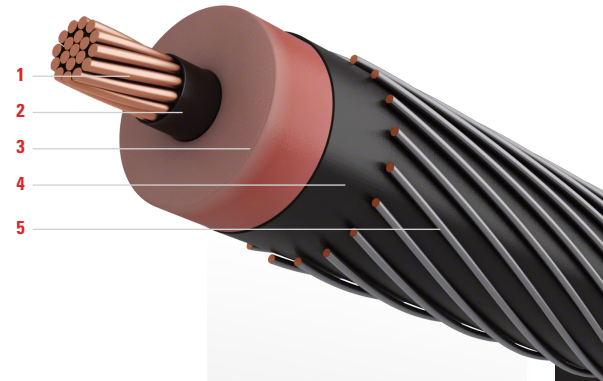
On request, amorphous EPR.

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

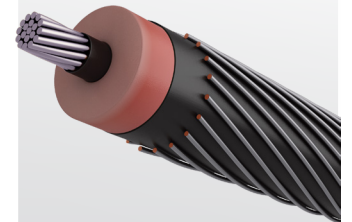
5. Concentric Neutral: Tinned coated soft annealed solid copper wires per ASTM B3 and B33, helically applied and uniformly spaced.

Full or 1/3 Neutral.

On request, a Contra-helical Wire can be applied.



COPPER
CONDUCTOR



ALUMINUM
CONDUCTOR

Technical Data

15 kV EPR 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 mils)										
2	7	0.68	6	14	0.88	485	16	14	0.88	619
1	19	0.71	7	14	0.91	566	13	12	0.95	749
1/0	19	0.75	9	14	0.95	676	16	12	0.99	896
2/0	19	0.80	11	14	1.00	806	13	10	1.07	1099
3/0	19	0.85	14	14	1.05	974	16	10	1.12	1328
4/0	19	0.90	18	14	1.10	1186	16	9	1.20	1627
250	37	0.96	13	12	1.19	1362	—	—	—	—
350	37	1.06	18	12	1.32	1840	—	—	—	—
500	37	1.19	17	10	1.49	2551	—	—	—	—
750	61	1.38	20	9	1.71	3681	—	—	—	—
1000	61	1.53	26	9	1.89	4813	—	—	—	—
Aluminum 100% Insulation Level (175 mils)										
2	1	0.65	6	14	0.85	325	10	14	0.85	379
2	7	0.67	6	14	0.87	340	10	14	0.87	393
1	19	0.71	6	14	0.91	370	13	14	0.91	464
1/0	1	0.72	6	14	0.91	386	16	14	0.91	520
1/0	19	0.75	6	14	0.95	406	16	14	0.95	540
2/0	19	0.80	7	14	0.99	464	13	12	1.03	647
3/0	19	0.85	9	14	1.04	543	16	12	1.08	763
4/0	19	0.90	11	14	1.10	634	13	10	1.18	927
250	37	0.96	13	14	1.16	719	16	10	1.23	1086
350	37	1.06	18	14	1.28	942	16	9	1.38	1383
500	37	1.19	16	12	1.44	1235	29	10	1.49	1876
750	61	1.40	15	10	1.69	1734	—	—	—	—
1000	61	1.54	16	9	1.90	2248	—	—	—	—

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 EPR 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 133% Insulation Level (220 mils)										
2	7	0.77	6	14	0.97	545	16	14	0.97	679
1	19	0.81	7	14	1.01	629	13	12	1.04	812
1/0	19	0.85	9	14	1.05	743	16	12	1.08	963
2/0	19	0.89	11	14	1.09	876	13	10	1.17	1168
3/0	19	0.94	14	14	1.14	1047	16	10	1.22	1401
4/0	19	1.00	18	14	1.20	1264	16	9	1.30	1705
250	37	1.05	13	12	1.31	1465	—	—	—	—
350	37	1.16	18	12	1.41	1932	—	—	—	—
500	37	1.28	17	10	1.58	2652	—	—	—	—
750	61	1.47	20	9	1.80	3796	—	—	—	—
1000	61	1.62	26	9	1.98	4942	—	—	—	—
Aluminum 133% Insulation Level (220 mils)										
2	1	0.74	6	14	0.94	382	10	14	0.94	436
2	7	0.76	6	14	0.96	399	10	14	0.96	453
1	19	0.80	6	14	1.00	432	13	14	1.00	526
1/0	1	0.81	6	14	1.00	448	16	14	1.00	583
1/0	19	0.84	6	14	1.04	471	16	14	1.04	606
2/0	19	0.89	7	14	1.08	532	13	12	1.12	715
3/0	19	0.94	9	14	1.13	615	16	12	1.17	835
4/0	19	0.99	11	14	1.19	711	13	10	1.27	1004
250	37	1.05	13	14	1.27	820	16	10	1.35	1187
350	37	1.15	18	14	1.37	1032	16	9	1.47	1473
500	37	1.28	16	12	1.53	1335	29	10	1.58	1976
750	61	1.49	15	10	1.78	1849	—	—	—	—
1000	61	1.64	16	9	1.99	2377	—	—	—	—

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 EPR 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	lbs/kft
Copper 100% Insulation Level (260 mils)										
1	19	0.89	7	14	1.09	691	13	12	1.12	874
1/0	19	0.93	9	14	1.13	807	16	12	1.16	1027
2/0	19	0.97	11	14	1.17	943	13	10	1.25	1236
3/0	19	1.02	14	14	1.24	1139	16	10	1.32	1493
4/0	19	1.08	18	14	1.30	1360	16	9	1.40	1801
250	37	1.13	13	12	1.39	1545	—	—	—	—
350	37	1.24	18	12	1.49	2019	—	—	—	—
500	37	1.37	17	10	1.66	2748	—	—	—	—
750	61	1.56	20	9	1.91	3947	—	—	—	—
1000	61	1.70	26	9	2.06	5063	—	—	—	—
Aluminum 100% Insulation Level (260 mils)										
1	19	0.88	6	14	1.08	493	13	14	1.08	587
1/0	1	0.89	6	14	1.08	510	16	14	1.08	644
1/0	19	0.92	6	14	1.12	535	16	14	1.12	669
2/0	19	0.97	7	14	1.17	599	13	12	1.20	782
3/0	19	1.02	9	14	1.24	705	16	12	1.27	925
4/0	19	1.07	11	14	1.29	805	13	10	1.37	1098
250	37	1.13	13	14	1.35	899	16	10	1.43	1266
350	37	1.23	18	14	1.45	1118	16	9	1.55	1559
500	37	1.36	16	12	1.62	1429	29	10	1.66	2071
750	61	1.57	15	10	1.89	1998	—	—	—	—
1000	61	1.72	16	9	2.07	2497	—	—	—	—

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 EPR 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 mils)										
1	19	1.01	7	14	1.21	795	13	12	1.24	977
1/0	19	1.05	9	14	1.27	936	16	12	1.31	1155
2/0	19	1.09	11	14	1.32	1077	13	10	1.39	1369
3/0	19	1.14	14	14	1.37	1258	16	10	1.44	1612
4/0	19	1.20	18	14	1.42	1485	16	9	1.52	1926
250	37	1.26	13	12	1.51	1676	—	—	—	—
350	37	1.36	18	12	1.62	2160	—	—	—	—
500	37	1.49	17	10	1.79	2902	—	—	—	—
750	61	1.68	20	9	2.03	4123	—	—	—	—
1000	61	1.83	26	9	2.18	5254	—	—	—	—
Aluminum 133% Insulation Level (320 mils)										
1/0	19	1.05	6	14	1.27	661	16	14	1.27	795
2/0	19	1.09	7	14	1.31	730	13	12	1.34	913
3/0	19	1.14	9	14	1.36	822	16	12	1.39	1042
4/0	19	1.20	11	14	1.42	928	13	10	1.49	1221
250	37	1.25	13	14	1.47	1027	16	10	1.55	1395
350	37	1.35	18	14	1.57	1256	16	9	1.67	1698
500	37	1.48	16	12	1.74	1581	29	10	1.78	2223
750	61	1.69	15	10	2.01	2174	—	—	—	—
1000	61	1.84	16	9	2.19	2688	—	—	—	—

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 ERP Insulation

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 mils)										
1/0	19	1.10	9	14	1.32	985	16	12	1.36	1205
2/0	19	1.15	11	14	1.37	1128	13	10	1.44	1421
3/0	19	1.20	14	14	1.42	1311	16	10	1.49	1665
4/0	19	1.25	18	14	1.47	1540	16	9	1.57	1982
250	37	1.31	13	12	1.56	1734	—	—	—	—
350	37	1.41	18	12	1.67	2222	—	—	—	—
500	37	1.54	17	10	1.87	3012	—	—	—	—
750	61	1.73	20	9	2.08	4200	—	—	—	—
1000	61	1.88	26	9	2.23	5338	—	—	—	—
Aluminum 100% Insulation Level (345 mils)										
1/0	1	1.06	6	14	1.28	678	16	14	1.28	812
1/0	19	1.10	6	14	1.32	709	16	14	1.32	844
2/0	19	1.14	7	14	1.36	780	13	12	1.39	963
3/0	19	1.19	9	14	1.41	875	16	12	1.44	1095
4/0	19	1.25	11	14	1.47	983	13	10	1.54	1276
250	37	1.30	13	14	1.52	1085	16	10	1.60	1452
350	37	1.40	18	14	1.62	1318	16	9	1.73	1759
500	37	1.53	16	12	1.82	1688	29	10	1.86	2329
750	61	1.74	15	10	2.07	2251	—	—	—	—
1000	61	1.89	16	9	2.24	2771	—	—	—	—
Copper 133% Insulation Level (420 mils)										
1/0	19	1.25	9	14	1.48	1146	16	12	1.51	1366
2/0	19	1.30	11	14	1.52	1295	13	10	1.60	1587
3/0	19	1.35	14	14	1.57	1484	16	10	1.65	1838
4/0	19	1.40	18	14	1.63	1721	16	9	1.73	2162
250	37	1.46	13	12	1.72	1921	—	—	—	—
350	37	1.56	18	12	1.85	2464	—	—	—	—
500	37	1.69	17	10	2.02	3232	—	—	—	—
750	61	1.88	20	9	2.24	4445	—	—	—	—
1000	61	2.03	26	9	2.39	5601	—	—	—	—
Aluminum 133% Insulation Level (420 mils)										
1/0	19	1.25	6	14	1.47	868	16	14	1.47	1002
2/0	19	1.29	7	14	1.51	944	13	12	1.54	1127
3/0	19	1.34	9	14	1.56	1045	16	12	1.59	1265
4/0	19	1.40	11	14	1.62	1160	13	10	1.69	1453
250	37	1.45	13	14	1.67	1269	16	10	1.75	1636
350	37	1.56	18	14	1.81	1556	16	9	1.91	1997
500	37	1.68	16	12	1.97	1905	29	10	2.01	2546
750	61	1.89	15	10	2.22	2493	—	—	—	—
1000	61	2.04	16	9	2.39	3032	—	—	—	—

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