



## C-L-X<sup>®</sup> Aluminum Sheath\* Type IEC 60502-2 6, 10, 15, 20, 30 kV Okoguard<sup>®</sup> Shielded Power Cable

One Okopact<sup>®</sup> (Compact Stranded) Copper Conductor/90°C Rating



- A Conductor - Compact Stranded Copper
- B Strand Screen - Extruded Semiconducting EPR
- C Insulation - Okoguard EPR
- D Insulation Screen - Extruded Semiconducting EPR
- E Shield - Copper Tape
- F Semiconducting Tape
- G Sheath - Impervious, Continuous, Corrugated Aluminum C-L-X
- H Jacket - Okoseal PVC

### Insulation

Okoguard is Okonite's registered trade name for its exclusive ethylene-propylene rubber (EPR) based, thermosetting compound, whose optimum balance of electrical and physical properties is unequalled in other solid dielectrics. Okoguard insulation, with the distinctive red color and a totally integrated EPR system, provides the optimum balance of electrical and physical properties for long, problem free service.

The triple tandem extrusion of the screens with the insulation provides optimum electrical characteristics.

### Assembly

The shielded insulated conductor is assembled with a semiconducting tape, encased by a continuously corrugated welded aluminum sheath (C-L-X). The impervious, continuous, corrugated aluminum C-L-X sheath provides complete protection against moisture, liquids and gases in addition to its excellent mechanical strength. In addition, the aluminum sheath has adequate ampacity capability to be used as a grounding conductor in U.S. National Electrical Code (NEC) non Hazardous Location (HL) areas.

### Jacket

The Okoseal (PVC) flame retardant jacket supplied with this cable is mechanically rugged and has excellent resistance to oil and most chemicals.

### Applications

C-L-X Type IEC 60502-2 cables are intended for use in fixed installations such as distribution networks or industrial applications.

C-L-X power cables are recommended as an economical alternate to a wire in conduit system.

### Specifications

**Conductor:** Annealed uncoated copper compact stranded per IEC 60228.

**Strand Screen:** Extruded semiconducting EPR strand screen. Meets or exceeds the electrical and physical properties of IEC 60502-2.

**Insulation:** Meets or exceeds the electrical and physical properties of IEC 60502-2.

**Insulation Screen:** Extruded semiconducting EPR insulation screen applied directly over the insulation. Meets or exceeds the electrical and physical properties of IEC 60502-2.

**Shield:** 0.005 inches (0.127mm) bare copper tape helically applied with 10% minimum overlap, followed by a semiconducting tape.

**Sheath:** Close fitting, impervious, continuous, corrugated aluminum C-L-X per UL 1072. C-L-X is recognized as a grounding conductor by the U.S. National Electrical Code (NEC).

**Jacket:** Meets or exceeds the electrical and physical properties of IEC 60502-2.

### Product Features

- Testing to IEC 60502-2 conducted by KEMA Nederland B.V.
- Conformance provided by means of Report of Performance TIC 1373-14.
- Passes optional flame spread requirements per IEC 60332-1-2.
- PVC jacket passes oil immersion requirements per IEC 60811-404.
- Passes IEC 60332-3-23 Category B vertical tray flame test.
- Triple tandem extruded, all EPR system.
- Okoguard cables meet or exceed all recognized industry standards.
- Excellent corona resistance.
- Screens are free stripping.
- Exceptional resistance to "treeing".
- Exceptional resistance to moisture.
- Resistant to most oils, acids, and alkalis.
- Sunlight resistant.
- Aluminum and coated copper conductors available.
- Continuous sheath provides grounding safety.
- Complete prepackaged, factory tested wiring system.

\* Complete certification to IEC 60502-2 is not obtainable because this standard does not recognize continuously corrugated armor.

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## Product Data Section 2: Sheet 45

6, 10, 15, 20, 30 kV Okoguard<sup>®</sup> Shielded Power Cable

One Okopact<sup>®</sup> (Compact Stranded) Copper Conductor/90°C Rating

### US MEASUREMENTS

Catalog Number	Conductor Size - mm <sup>2</sup>	Nominal Insulation Thickness - inches	Approx. Dia. over Insulation - inches	Approx. Dia. over Screen - inches	Approx. Core O.D. - inches	C-L-X O.D. - inches	Jacket Thickness - inches	Approx. O.D. - inches	Approx. Net Weight - lbs./1000'	Approx. Ship Weight - lbs./1000'
<b>6 kV Rated Cable</b>										
571-22-0002	25	0.098	0.481	0.541	0.593	0.799	0.067	0.949	510	577
571-22-0003	35	0.098	0.525	0.585	0.637	0.843	0.067	0.993	597	664
571-22-0005	50	0.098	0.565	0.625	0.677	0.886	0.071	1.044	699	766
571-22-0007	70	0.098	0.621	0.681	0.733	0.929	0.071	1.087	852	919
571-22-0009	95	0.098	0.688	0.748	0.799	1.020	0.075	1.186	1061	1141
571-22-0012	120	0.098	0.762	0.822	0.873	1.106	0.079	1.283	1287	1377
571-22-0015	150	0.098	0.850	0.910	0.961	1.193	0.083	1.378	1576	1692
571-22-0018	185	0.098	0.878	0.938	0.989	1.236	0.083	1.421	1760	1903
571-22-0024	240	0.102	0.931	0.991	1.042	1.288	0.083	1.473	2142	2285
571-22-0030	300	0.110	1.089	1.149	1.200	1.465	0.091	1.666	2758	2901
571-22-0040	400	0.118	1.237	1.297	1.348	1.644	0.098	1.861	3369	3635
571-22-0050	500	0.126	1.366	1.426	1.477	1.781	0.102	2.006	4233	4489
<b>10 kV Rated Cable</b>										
571-23-0102	25	0.134	0.545	0.605	0.657	0.843	0.067	0.993	559	626
571-23-0103	35	0.134	0.607	0.667	0.719	0.929	0.071	1.087	680	747
571-23-0105	50	0.134	0.645	0.705	0.756	0.972	0.075	1.138	782	862
571-23-0107	70	0.134	0.693	0.753	0.804	1.020	0.075	1.186	934	1014
571-23-0109	95	0.134	0.764	0.824	0.875	1.106	0.079	1.283	1172	1262
571-23-0112	120	0.134	0.844	0.904	0.955	1.193	0.083	1.378	1393	1495
571-23-0115	150	0.134	0.898	0.958	1.009	1.236	0.083	1.421	1633	1749
571-23-0118	185	0.134	0.950	1.010	1.061	1.288	0.083	1.473	1844	1987
571-23-0124	240	0.134	1.048	1.108	1.159	1.421	0.091	1.622	2293	2436
571-23-0130	300	0.134	1.137	1.197	1.248	1.514	0.091	1.715	2829	2993
571-23-0140	400	0.134	1.255	1.315	1.366	1.644	0.098	1.861	3392	3658
571-23-0150	500	0.134	1.382	1.442	1.493	1.781	0.102	2.006	4255	4511
<b>15 kV Rated Cable</b>										
571-23-0202	25	0.177	0.645	0.705	0.756	0.972	0.075	1.138	674	740
571-23-0203	35	0.177	0.683	0.743	0.794	1.020	0.075	1.186	765	831
571-23-0205	50	0.177	0.725	0.785	0.836	1.063	0.075	1.229	880	955
571-23-0207	70	0.177	0.783	0.843	0.894	1.106	0.079	1.283	1057	1132
571-23-0209	95	0.177	0.850	0.910	0.961	1.193	0.083	1.378	1282	1384
571-23-0212	120	0.177	0.930	0.990	1.041	1.288	0.083	1.473	1501	1618
571-23-0215	150	0.177	0.988	1.048	1.099	1.337	0.087	1.530	1762	1905
571-23-0218	185	0.177	1.048	1.108	1.159	1.421	0.091	1.622	2009	2152
571-23-0224	240	0.177	1.132	1.192	1.243	1.514	0.091	1.715	2457	2621
571-23-0230	300	0.177	1.237	1.297	1.348	1.644	0.098	1.861	3022	3288
571-23-0240	400	0.177	1.363	1.423	1.474	1.781	0.102	2.006	3596	3852
571-23-0250	500	0.177	1.480	1.540	1.591	1.915	0.106	2.148	4459	4806

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One Okopact<sup>®</sup> (Compact Stranded) Copper Conductor/90°C Rating

### US MEASUREMENTS

Catalog Number	Conductor Size - mm <sup>2</sup>	Nominal Insulation Thickness - inches	Approx. Dia. over Insulation - inches	Approx. Dia. over Screen - inches	Approx. Core O.D. - inches	C-L-X O.D. - inches	Jacket Thickness - inches	Approx. O.D. - inches	Approx. Net Weight - lbs./1000'	Approx. Ship Weight - lbs./1000'
<b>20 kV Rated Cable</b>										
571-23-0303	35	0.217	0.765	0.825	0.876	1.106	0.079	1.283	880	955
571-23-0305	50	0.217	0.805	0.865	0.916	1.150	0.079	1.327	985	1087
571-23-0307	70	0.217	0.883	0.943	0.994	1.236	0.083	1.421	1194	1296
571-23-0309	95	0.217	0.932	0.992	1.043	1.288	0.083	1.473	1386	1503
571-23-0312	120	0.217	1.008	1.068	1.119	1.374	0.087	1.567	1618	1752
571-23-0315	150	0.217	1.074	1.134	1.185	1.465	0.091	1.666	1946	2089
571-23-0318	185	0.217	1.122	1.182	1.233	1.514	0.091	1.715	2163	2327
571-23-0324	240	0.217	1.214	1.274	1.325	1.601	0.094	1.808	2595	2759
571-23-0330	300	0.217	1.323	1.383	1.434	1.739	0.098	1.956	3166	3432
571-23-0340	400	0.217	1.441	1.501	1.552	1.868	0.106	2.101	3753	4009
571-23-0350	500	0.217	1.570	1.630	1.681	2.012	0.110	2.253	4647	5206
<b>30 kV Rated Cable</b>										
571-23-0405	50	0.315	1.009	1.069	1.120	1.374	0.087	1.567	1267	1401
571-23-0407	70	0.315	1.065	1.125	1.176	1.421	0.091	1.622	1457	1591
571-23-0409	95	0.315	1.132	1.192	1.243	1.514	0.091	1.715	1733	1961
571-23-0412	120	0.315	1.206	1.266	1.317	1.601	0.094	1.808	1978	2206
571-23-0415	150	0.315	1.276	1.336	1.387	1.687	0.098	1.904	2291	2478
571-23-0418	185	0.315	1.324	1.384	1.435	1.739	0.098	1.956	2517	2704
571-23-0424	240	0.315	1.414	1.474	1.525	1.825	0.102	2.050	2971	3256
571-23-0430	300	0.315	1.529	1.589	1.640	1.956	0.106	2.189	3569	3861
571-23-0440	400	0.313	1.627	1.687	1.738	2.058	0.110	2.299	4122	4457
571-23-0450	500	0.315	1.766	1.826	1.877	2.231	0.118	2.488	5089	5659

Visit Okonite's web site, [www.okonite.com](http://www.okonite.com) for the most up to date dimensions.

#### Ampacities

Refer to IEC 60502-2 Annex B for continuous current ratings of 1/C and 3/C cables.

#### Alternate Constructions

Contact Applications Engineering for design options.

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### METRIC MEASUREMENTS

Catalog Number	Conductor Size - mm <sup>2</sup>	Nominal Insulation Thickness - mm	Approx. Dia. over Insulation - mm	Approx. Dia. over Screen - mm	Approx. Core O.D. - mm	C-L-X O.D. - mm	Jacket Thickness - mm	Approx. O.D. - mm	Approx. Net Weight - Kg/Km	Approx. Ship Weight - Kg/Km
<b>6 kV Rated Cable</b>										
571-22-0002	25	2.5	12.2	13.7	15.1	20.3	1.7	24.1	759	859
571-22-0003	35	2.5	13.3	14.9	16.2	21.4	1.7	25.2	888	988
571-22-0005	50	2.5	14.4	15.9	17.2	22.5	1.8	26.5	1040	1140
571-22-0007	70	2.5	15.8	17.3	18.6	23.6	1.8	27.6	1268	1367
571-22-0009	95	2.5	17.5	19.0	20.3	25.9	1.9	30.1	1579	1698
571-22-0012	120	2.5	19.4	20.9	22.2	28.1	2.0	32.6	1915	2049
571-22-0015	150	2.5	21.6	23.1	24.4	30.3	2.1	35.0	2345	2518
571-22-0018	185	2.5	22.3	23.8	25.1	31.4	2.1	36.1	2619	2832
571-22-0024	240	2.6	23.6	25.2	26.5	32.7	2.1	37.4	3187	3400
571-22-0030	300	2.8	27.7	29.2	30.5	37.2	2.3	42.3	4104	4317
571-22-0040	400	3.0	31.4	32.9	34.2	41.8	2.5	47.3	5013	5409
571-22-0050	500	3.2	34.7	36.2	37.5	45.2	2.6	51.0	6299	6680

<b>10 kV Rated Cable</b>										
571-23-0102	25	3.4	13.8	15.4	16.7	21.4	1.7	25.2	832	931
571-23-0103	35	3.4	15.4	16.9	18.3	23.6	1.8	27.6	1012	1112
571-23-0105	50	3.4	16.4	17.9	19.2	24.7	1.9	28.9	1164	1283
571-23-0107	70	3.4	17.6	19.1	20.4	25.9	1.9	30.1	1390	1509
571-23-0109	95	3.4	19.4	20.9	22.2	28.1	2.0	32.6	1744	1878
571-23-0112	120	3.4	21.4	23.0	24.3	30.3	2.1	35.0	2073	2225
571-23-0115	150	3.4	22.8	24.3	25.6	31.4	2.1	36.1	2430	2603
571-23-0118	185	3.4	24.1	25.7	26.9	32.7	2.1	37.4	2744	2957
571-23-0124	240	3.4	26.6	28.1	29.4	36.1	2.3	41.2	3412	3625
571-23-0130	300	3.4	28.9	30.4	31.7	38.5	2.3	43.6	4210	4454
571-23-0140	400	3.4	31.9	33.4	34.7	41.8	2.5	47.3	5047	5443
571-23-0150	500	3.4	35.1	36.6	37.9	45.2	2.6	51.0	6331	6712

<b>15 kV Rated Cable</b>										
571-23-0202	25	4.5	16.4	17.9	19.2	24.7	1.9	28.9	1003	1101
571-23-0203	35	4.5	17.3	18.9	20.2	25.9	1.9	30.1	1138	1237
571-23-0205	50	4.5	18.4	19.9	21.2	27.0	1.9	31.2	1309	1421
571-23-0207	70	4.5	19.9	21.4	22.7	28.1	2.0	32.6	1573	1684
571-23-0209	95	4.5	21.6	23.1	24.4	30.3	2.1	35.0	1908	2059
571-23-0212	120	4.5	23.6	25.1	26.4	32.7	2.1	37.4	2233	2408
571-23-0215	150	4.5	25.1	26.6	27.9	34.0	2.2	38.9	2622	2835
571-23-0218	185	4.5	26.6	28.1	29.4	36.1	2.3	41.2	2989	3202
571-23-0224	240	4.5	28.8	30.3	31.6	38.5	2.3	43.6	3656	3900
571-23-0230	300	4.5	31.4	32.9	34.2	41.8	2.5	47.3	4497	4893
571-23-0240	400	4.5	34.6	36.1	37.4	45.2	2.6	51.0	5351	5732
571-23-0250	500	4.5	37.6	39.1	40.4	48.6	2.7	54.6	6635	7151

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One Okopact<sup>®</sup> (Compact Stranded) Copper Conductor/90°C Rating

### METRIC MEASUREMENTS

Catalog Number	Conductor Size - mm <sup>2</sup>	Nominal Insulation Thickness - mm	Approx. Dia. over Insulation - mm	Approx. Dia. over Screen - mm	Approx. Core O.D. - mm	C-L-X O.D. - mm	Jacket Thickness - mm	Approx. O.D. - mm	Approx. Net Weight - Kg/Km	Approx. Ship Weight - Kg/Km
<b>20kV Rated Cable</b>										
571-23-0303	35	5.5	19.4	21.0	22.3	28.1	2.0	32.6	1309	1421
571-23-0305	50	5.5	20.4	22.0	23.3	29.2	2.0	33.7	1466	1617
571-23-0307	70	5.5	22.4	24.0	25.2	31.4	2.1	36.1	1777	1928
571-23-0309	95	5.5	23.7	25.2	26.5	32.7	2.1	37.4	2062	2236
571-23-0312	120	5.5	25.6	27.1	28.4	34.9	2.2	39.8	2408	2607
571-23-0315	150	5.5	27.3	28.8	30.1	37.2	2.3	42.3	2896	3108
571-23-0318	185	5.5	28.5	30.0	31.3	38.5	2.3	43.6	3219	3463
571-23-0324	240	5.5	30.8	32.4	33.7	40.7	2.4	45.9	3861	4105
571-23-0330	300	5.5	33.6	35.1	36.4	44.2	2.5	49.7	4711	5107
571-23-0340	400	5.5	36.6	38.1	39.4	47.4	2.7	53.4	5584	5965
571-23-0350	500	5.5	39.9	41.4	42.7	51.1	2.8	57.2	6915	7747

<b>30 kV Rated Cable</b>										
571-23-0405	50	8.0	25.6	27.2	28.4	34.9	2.2	39.8	1885	2085
571-23-0407	70	8.0	27.1	28.6	29.9	36.1	2.3	41.2	2168	2367
571-23-0409	95	8.0	28.8	30.3	31.6	38.5	2.3	43.6	2579	2918
571-23-0412	120	8.0	30.6	32.2	33.5	40.7	2.4	45.9	2943	3283
571-23-0415	150	8.0	32.4	33.9	35.2	42.8	2.5	48.4	3409	3687
571-23-0418	185	8.0	33.6	35.2	36.4	44.2	2.5	49.7	3745	4024
571-23-0424	240	8.0	35.9	37.4	38.7	46.4	2.6	52.1	4421	4845
571-23-0430	300	8.0	38.8	40.4	41.7	49.7	2.7	55.6	5311	5745
571-23-0440	400	8.0	41.3	42.8	44.1	52.3	2.8	58.4	6134	6632
571-23-0450	500	8.0	44.9	46.4	47.7	56.7	3.0	63.2	7572	8421

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#### Alternate Constructions

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