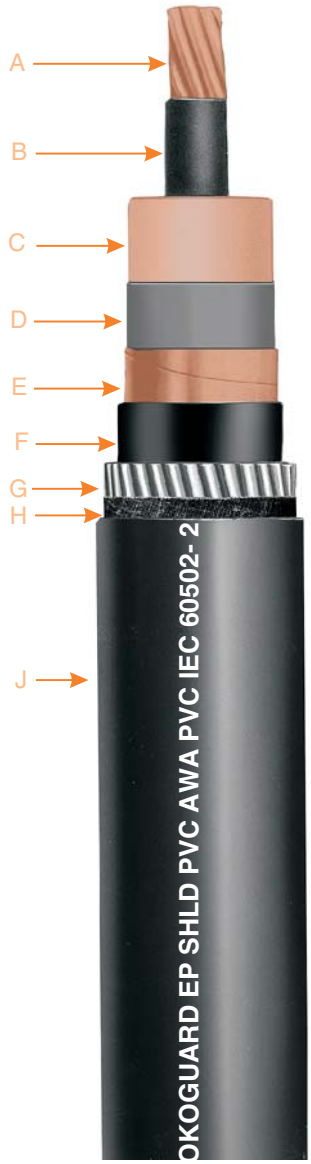
Wire Armor Type IEC 60502-2

6, 10, 15, 20, 30 kV Okoguard Shielded Power Cable - Aluminum Wire Armor

One Okopact® (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 Inner Jacket - Okoseal PVC
G Armor - Round Aluminum Wires
H Binder Tape
J Outer 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 unequaled 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 encased by multiple aluminum armor wires. The armor provides mechanical protection and longitudinal strength.

Jacket

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

Applications

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

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.

Inner Jacket: Meets or exceeds the electrical and physical properties of IEC 60502-2 for polyvinyl chloride jackets.

Armor: Round aluminum wires, approximate 100% coverage, meeting the requirements of IEC 60502-2, followed by a binder tape.

Outer Jacket: Meets or exceeds the electrical and physical properties of IEC 60502-2 for polyvinyl chloride jackets.

Product Features

- Certification to IEC 60502-2 conducted by KEMA Nederland B.V.
- Conformance provided by means of Type Test Certificate TIC 1014-14.
- Passes optional flame spread requirements per IEC 60332-1-2.
- PVC jacket passes oil immersion requirements per IEC 60811-404.
- Passes IEC 60332-3-24 Category C 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 alkalies.
- Sunlight resistant.
- Aluminum and coated copper conductors available.

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US MEASUREMENTS

Catalog Number	Conductor Size - mm²	Nominal Insulation Thickness - inches	Approx. Dia. over Insulation - inches	Approx. Dia. over Screen - inches	Inner Jacket Thickness - inches	Approx. Dia. over Inner Jacket - inches	Approx. Number x Size of Armor Wires - inches	Approx. Dia. over Armor - inches	Outer Jacket Thickness - inches	Approx. O.D. - inches	Approx. Net Weight - lbs./1000'	Approx. Ship Weight - lbs./1000'
6 kV Rated Cable												
508-23-6002	25	0.098	0.473	0.533	0.040	0.633	31 x 0.063	0.759	0.067	0.925	597	643
508-23-6003	35	0.098	0.515	0.575	0.040	0.675	32 x 0.063	0.801	0.067	0.967	686	743
508-23-6004	50	0.098	0.557	0.617	0.040	0.717	34 x 0.063	0.843	0.071	1.017	796	853
508-23-6005	70	0.098	0.621	0.681	0.040	0.781	37 x 0.063	0.907	0.071	1.081	969	1026
508-23-6006	95	0.098	0.688	0.748	0.040	0.847	40 x 0.063	0.973	0.075	1.155	1182	1276
508-23-6007	120	0.098	0.762	0.822	0.040	0.921	43 x 0.063	1.047	0.075	1.230	1390	1496
508-23-6008	150	0.098	0.826	0.886	0.040	0.985	38 x 0.079	1.141	0.079	1.334	1717	1817
508-23-6009	185	0.098	0.878	0.938	0.040	1.037	40 x 0.079	1.193	0.083	1.394	1946	2062
508-23-6010	240	0.102	0.978	1.038	0.048	1.155	44 x 0.079	1.311	0.087	1.520	2415	2558
508-23-6011	300	0.110	1.089	1.149	0.048	1.266	48 x 0.079	1.422	0.091	1.650	2977	3154
508-23-6012	400	0.118	1.223	1.283	0.048	1.400	43 x 0.098	1.596	0.094	1.830	3665	3899
508-23-6013	500	0.126	1.366	1.426	0.056	1.561	47 x 0.098	1.757	0.102	2.009	4634	4981
10 kV Rated Cable												
508-23-6102	25	0.134	0.545	0.605	0.040	0.705	34 x 0.063	0.831	0.071	1.005	676	733
508-23-6103	35	0.134	0.587	0.647	0.040	0.747	36 x 0.063	0.873	0.071	1.047	772	829
508-23-6104	50	0.134	0.629	0.689	0.040	0.789	38 x 0.063	0.915	0.071	1.089	876	933
508-23-6105	70	0.134	0.693	0.753	0.040	0.852	40 x 0.063	0.978	0.075	1.160	1057	1123
508-23-6106	95	0.134	0.760	0.820	0.040	0.919	43 x 0.063	1.045	0.075	1.227	1267	1373
508-23-6107	120	0.134	0.834	0.894	0.040	0.993	38 x 0.079	1.149	0.079	1.342	1550	1652
508-23-6108	150	0.134	0.898	0.958	0.040	1.057	40 x 0.079	1.213	0.083	1.414	1826	1969
508-23-6109	185	0.134	0.950	1.010	0.048	1.127	43 x 0.079	1.283	0.087	1.489	2085	2228
508-23-6110	240	0.134	1.042	1.102	0.048	1.219	46 x 0.079	1.375	0.087	1.581	2509	2652
508-23-6111	300	0.134	1.137	1.197	0.048	1.314	50 x 0.079	1.470	0.091	1.698	3058	3235
508-23-6112	400	0.134	1.255	1.315	0.048	1.432	43 x 0.098	1.628	0.098	1.872	3735	4001
508-23-6113	500	0.134	1.382	1.442	0.056	1.577	48 x 0.098	1.773	0.102	2.025	4670	5060
15 kV Rated Cable												
508-23-6202	25	0.177	0.635	0.695	0.040	0.795	38 x 0.063	0.921	0.071	1.095	774	831
508-23-6203	35	0.177	0.677	0.737	0.040	0.836	40 x 0.063	0.962	0.075	1.144	877	943
508-23-6204	50	0.177	0.719	0.779	0.040	0.878	42 x 0.063	1.004	0.075	1.186	987	1053
508-23-6205	70	0.177	0.783	0.843	0.040	0.942	44 x 0.063	1.068	0.079	1.260	1179	1285
508-23-6206	95	0.177	0.850	0.910	0.040	1.009	39 x 0.079	1.165	0.083	1.365	1465	1567
508-23-6207	120	0.177	0.924	0.984	0.048	1.101	42 x 0.079	1.257	0.083	1.458	1715	1832
508-23-6208	150	0.177	0.988	1.048	0.048	1.165	44 x 0.079	1.321	0.087	1.530	1998	2141
508-23-6209	185	0.177	1.040	1.100	0.048	1.217	46 x 0.079	1.373	0.087	1.579	2222	2365
508-23-6210	240	0.177	1.132	1.192	0.048	1.309	50 x 0.079	1.465	0.091	1.679	2672	2815
508-23-6211	300	0.177	1.227	1.287	0.048	1.404	43 x 0.098	1.600	0.098	1.844	3343	3609
508-23-6212	400	0.177	1.345	1.405	0.056	1.540	47 x 0.098	1.736	0.102	1.988	3964	4220
508-23-6213	500	0.177	1.472	1.532	0.056	1.667	50 x 0.098	1.863	0.106	2.123	4866	5256

Wire Armor Type IEC 60502-2

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

US MEASUREMENTS

Catalog Number	Conductor Size - mm²	Nominal Insulation Thickness - inches	Approx. Dia. over Insulation - inches	Approx. Dia. over Screen - inches	Inner Jacket Thickness - inches	Approx. Dia. over Inner Jacket - inches	Approx. Number x Size of Armor Wires - inches	Approx. Dia. over Armor - inches	Outer Jacket Thickness - inches	Approx. O.D. - inches	Approx. Net Weight - lbs./1000'	Approx. Ship Weight - lbs./1000'
20 kV Rated Cable												
508-23-6302	35	0.217	0.759	0.819	0.040	0.918	43 x 0.063	1.044	0.075	1.226	976	1051
508-23-6303	50	0.217	0.801	0.861	0.040	0.960	45 x 0.063	1.086	0.079	1.278	1099	1174
508-23-6304	70	0.217	0.865	0.925	0.040	1.024	39 x 0.079	1.180	0.083	1.380	1353	1455
508-23-6305	95	0.217	0.932	0.992	0.048	1.109	42 x 0.079	1.265	0.083	1.465	1606	1723
508-23-6306	120	0.217	1.006	1.066	0.048	1.183	45 x 0.079	1.339	0.087	1.548	1851	2011
508-23-6307	150	0.217	1.070	1.130	0.048	1.247	47 x 0.079	1.403	0.091	1.620	2140	2283
508-23-6308	185	0.217	1.122	1.182	0.048	1.299	49 x 0.079	1.455	0.091	1.669	2368	2511
508-23-6309	240	0.217	1.214	1.274	0.048	1.391	42 x 0.098	1.587	0.094	1.807	2917	3151
508-23-6310	300	0.217	1.309	1.369	0.056	1.504	46 x 0.098	1.700	0.098	1.944	3533	3799
508-23-6311	400	0.217	1.427	1.487	0.056	1.622	49 x 0.098	1.818	0.102	2.070	4126	4411
508-23-6312	500	0.217	1.554	1.614	0.056	1.749	53 x 0.098	1.945	0.110	2.213	5063	5463
30 kV Rated Cable												
508-23-6402	50	0.315	1.001	1.061	0.048	1.178	45 x 0.079	1.334	0.087	1.542	1490	1633
508-23-6403	70	0.315	1.065	1.125	0.048	1.242	47 x 0.079	1.398	0.091	1.614	1705	1848
508-23-6404	95	0.315	1.132	1.192	0.048	1.309	50 x 0.079	1.465	0.091	1.681	1949	2092
508-23-6405	120	0.315	1.206	1.266	0.048	1.383	42 x 0.098	1.579	0.094	1.802	2301	2465
508-23-6406	150	0.315	1.270	1.330	0.048	1.447	44 x 0.098	1.643	0.098	1.876	2615	2802
508-23-6407	185	0.315	1.322	1.382	0.056	1.517	46 x 0.098	1.713	0.098	1.946	2895	3161
508-23-6408	240	0.315	1.414	1.474	0.056	1.609	49 x 0.098	1.805	0.102	2.046	3380	3672
508-23-6409	300	0.315	1.509	1.569	0.056	1.704	51 x 0.098	1.900	0.106	2.160	3964	4249

Okonite's web site, www.okonite.com contains the most up to date information.

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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- Aluminum Wire Armor

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METRIC MEASUREMENTS

Catalog Number	Conductor Size - mm²	Nominal Insulation Thickness - mm	Approx. Dia. over Insulation - mm	Approx. Dia. over Screen - mm	Inner Jacket Thickness - mm	Approx. Dia. over Inner Jacket - mm	Approx. Number x Size of Armor Wires - mm	Approx. Dia. over Armor - mm	Outer Jacket Thickness - mm	Approx. O.D. - mm	Approx. Net Weight - Kg/Km	Approx. Ship Weight - Kg/Km
6 kV Rated Cable												
508-23-6002	25	2.5	12.0	13.5	1.0	16.1	31 x 1.6	19.3	1.7	23.5	888	957
508-23-6003	35	2.5	13.1	14.6	1.0	17.1	32 x 1.6	20.3	1.7	24.6	1021	1106
508-23-6004	50	2.5	14.1	15.7	1.0	18.2	34 x 1.6	21.4	1.8	25.8	1184	1269
508-23-6005	70	2.5	15.8	17.3	1.0	19.8	37 x 1.6	23.0	1.8	27.5	1442	1527
508-23-6006	95	2.5	17.5	19.0	1.0	21.5	40 x 1.6	24.7	1.9	29.3	1759	1899
508-23-6007	120	2.5	19.4	20.9	1.0	23.4	43 x 1.6	26.6	1.9	31.2	2068	2226
508-23-6008	150	2.5	21.0	22.5	1.0	25.0	38 x 2.0	29.0	2.0	33.9	2555	2704
508-23-6009	185	2.5	22.3	23.8	1.0	26.3	40 x 2.0	30.3	2.1	35.4	2896	3068
508-23-6010	240	2.6	24.8	26.4	1.2	29.3	44 x 2.0	33.3	2.2	38.6	3594	3806
508-23-6011	300	2.8	27.7	29.2	1.2	32.2	48 x 2.0	36.1	2.3	41.9	4430	4693
508-23-6012	400	3.0	31.1	32.6	1.2	35.6	43 x 2.5	40.5	2.4	46.5	5454	5802
508-23-6013	500	3.2	34.7	36.2	1.4	39.6	47 x 2.5	44.6	2.6	51.0	6895	7412
10 kVRated Cable												
508-23-6102	25	3.4	13.8	15.4	1.0	17.9	34 x 1.6	21.1	1.8	25.5	1006	1091
508-23-6103	35	3.4	14.9	16.4	1.0	19.0	36 x 1.6	22.2	1.8	26.6	1149	1234
508-23-6104	50	3.4	16.0	17.5	1.0	20.0	38 x 1.6	23.2	1.8	27.7	1303	1388
508-23-6105	70	3.4	17.6	19.1	1.0	21.6	40 x 1.6	24.8	1.9	29.5	1573	1671
508-23-6106	95	3.4	19.3	20.8	1.0	23.3	43 x 1.6	26.5	1.9	31.2	1885	2043
508-23-6107	120	3.4	21.2	22.7	1.0	25.2	38 x 2.0	29.2	2.0	34.1	2306	2458
508-23-6108	150	3.4	22.8	24.3	1.0	26.8	40 x 2.0	30.8	2.1	35.9	2717	2930
508-23-6109	185	3.4	24.1	25.7	1.2	28.6	43 x 2.0	32.6	2.2	37.8	3102	3315
508-23-6110	240	3.4	26.5	28.0	1.2	31.0	46 x 2.0	34.9	2.2	40.2	3733	3946
508-23-6111	300	3.4	28.9	30.4	1.2	33.4	50 x 2.0	37.3	2.3	43.1	4550	4814
508-23-6112	400	3.4	31.9	33.4	1.2	36.4	43 x 2.5	41.4	2.5	47.5	5558	5953
508-23-6113	500	3.4	35.1	36.6	1.4	40.1	48 x 2.5	45.0	2.6	51.4	6949	7529
15 kV Rated Cable												
508-23-6202	25	4.5	16.1	17.7	1.0	20.2	38 x 1.6	23.4	1.8	27.8	1152	1237
508-23-6203	35	4.5	17.2	18.7	1.0	21.2	40 x 1.6	24.4	1.9	29.1	1305	1403
508-23-6204	50	4.5	18.3	19.8	1.0	22.3	42 x 1.6	25.5	1.9	30.1	1469	1567
508-23-6205	70	4.5	19.9	21.4	1.0	23.9	44 x 1.6	27.1	2.0	32.0	1754	1912
508-23-6206	95	4.5	21.6	23.1	1.0	25.6	39 x 2.0	29.6	2.1	34.7	2180	2332
508-23-6207	120	4.5	23.5	25.0	1.2	28.0	42 x 2.0	31.9	2.1	37.0	2552	2726
508-23-6208	150	4.5	25.1	26.6	1.2	29.6	44 x 2.0	33.6	2.2	38.9	2973	3186
508-23-6209	185	4.5	26.4	27.9	1.2	30.9	46 x 2.0	34.9	2.2	40.1	3306	3519
508-23-6210	240	4.5	28.8	30.3	1.2	33.2	50 x 2.0	37.2	2.3	42.6	3976	4189
508-23-6211	300	4.5	31.2	32.7	1.2	35.7	43 x 2.5	40.6	2.5	46.8	4974	5370
508-23-6212	400	4.5	34.2	35.7	1.4	39.1	47 x 2.5	44.1	2.6	50.5	5898	6279
508-23-6213	500	4.5	37.4	38.9	1.4	42.3	50 x 2.5	47.3	2.7	53.9	7241	7821

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- Aluminum Wire Armor

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METRIC MEASUREMENTS

Catalog Number	Conductor Size - mm²	Nominal Insulation Thickness - mm	Approx. Dia. over Insulation - mm	Approx. Dia. over Screen - mm	Inner Jacket Thickness - mm	Approx. Dia. over Inner Jacket - mm	Approx. Number x Size of Armor Wires - mm	Approx. Dia. over Armor - mm	Outer Jacket Thickness - mm	Approx. O.D. - mm	Approx. Net Weight - Kg/Km	Approx. Ship Weight - Kg/Km
20kV Rated Cable												
508-23-6302	35	5.5	19.3	20.8	1.0	23.3	43 x 1.6	26.5	1.9	31.1	1452	1564
508-23-6303	50	5.5	20.3	21.9	1.0	24.4	45 x 1.6	27.6	2.0	32.5	1635	1747
508-23-6304	70	5.5	22.0	23.5	1.0	26.0	39 x 2.0	30.0	2.1	35.1	2013	2165
508-23-6305	95	5.5	23.7	25.2	1.2	28.2	42 x 2.0	32.1	2.1	37.2	2390	2564
508-23-6306	120	5.5	25.6	27.1	1.2	30.0	45 x 2.0	34.0	2.2	39.3	2754	2992
508-23-6307	150	5.5	27.2	28.7	1.2	31.7	47 x 2.0	35.6	2.3	41.1	3184	3397
508-23-6308	185	5.5	28.5	30.0	1.2	33.0	49 x 2.0	37.0	2.3	42.4	3524	3736
508-23-6309	240	5.5	30.8	32.4	1.2	35.3	42 x 2.5	40.3	2.4	45.9	4340	4689
508-23-6310	300	5.5	33.2	34.8	1.4	38.2	46 x 2.5	43.2	2.5	49.4	5257	5653
508-23-6311	400	5.5	36.2	37.8	1.4	41.2	49 x 2.5	46.2	2.6	52.6	6139	6564
508-23-6312	500	5.5	39.5	41.0	1.4	44.4	53 x 2.5	49.4	2.8	56.2	7534	8129
30 kV Rated Cable												
508-23-6402	50	8.0	25.4	26.9	1.2	29.9	45 x 2.0	33.9	2.2	39.2	2217	2430
508-23-6403	70	8.0	27.1	28.6	1.2	31.5	47 x 2.0	35.5	2.3	41.0	2537	2750
508-23-6404	95	8.0	28.8	30.3	1.2	33.2	50 x 2.0	37.2	2.3	42.7	2900	3113
508-23-6405	120	8.0	30.6	32.2	1.2	35.1	42 x 2.5	40.1	2.4	45.8	3424	3668
508-23-6406	150	8.0	32.3	33.8	1.2	36.8	44 x 2.5	41.7	2.5	47.7	3891	4169
508-23-6407	185	8.0	33.6	35.1	1.4	38.5	46 x 2.5	43.5	2.5	49.4	4308	4704
508-23-6408	240	8.0	35.9	37.4	1.4	40.9	49 x 2.5	45.8	2.6	52.0	5029	5464
508-23-6409	300	8.0	38.3	39.9	1.4	43.3	51 x 2.5	48.3	2.7	54.9	5898	6323

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Ampacities

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

Alternate Constructions

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