Wire Armor Type IEC 60502-2

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

Three Okopact® (Compact Stranded) Copper Conductors/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 Phase Identification Tape
F Shield - Copper Tape
G Fillers and Binder Tape
H Inner Jacket - Okoseal PVC
J Armor - Round Galvanized Steel Wires
K Binder Tape
L 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 conductors are assembled with fillers and a binder tape overall, encased by multiple galvanized steel 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.

Phase Identification: Color coded (black, red, blue) polyester ribbon laid longitudinally under the copper tape shield.

Assembly: Cabled with fillers and an overall binder tape.

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

Armor: Round galvanized steel wires, approximate 100% coverage, meeting the requirements of IEC 60502, 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 1015-14.
- Passes optional flame spread requirements pre IEC 60332-1-2.
- PVC jacket passes oil immersion requirements per IEC 60811-404.
- Passes IEC 60332-3-22 Category A 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.
- Complete prepackaged, color coded, factory tested wiring system.

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Three Okopact® (Compact Stranded) Copper Conductors/90°C Rating
US MEASUREMENTS

Catalog Number	Conductor Size - mm²	Nominal Insulation Thickness - inches	Approx. Dia. over Insulation - inches	Approx. Dia. over Screen - inches	Approx. Core O.D. - 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 Wt. - lbs./1000'	Approx. Ship Wt. - lbs./1000'
6 kV Rated Cable													
508-23-6502	25	0.098	0.473	0.533	1.195	0.048	1.301	49 x 0.079	1.459	0.091	1.687	2242	2385
508-23-6503	35	0.098	0.515	0.575	1.286	0.048	1.392	42 x 0.098	1.589	0.094	1.823	2807	2994
508-23-6504	50	0.098	0.557	0.617	1.377	0.048	1.483	45 x 0.098	1.680	0.098	1.924	3193	3459
508-23-6505	70	0.098	0.621	0.681	1.515	0.056	1.639	49 x 0.098	1.836	0.106	2.096	3868	4160
508-23-6506	95	0.098	0.688	0.748	1.657	0.056	1.781	54 x 0.098	1.978	0.110	2.246	4708	5160
508-23-6507	120	0.098	0.762	0.822	1.817	0.063	1.955	59 x 0.098	2.152	0.114	2.428	5509	5882
508-23-6508	150	0.098	0.826	0.886	1.956	0.063	2.094	63 x 0.098	2.291	0.122	2.583	6435	7055
508-23-6509	185	0.098	0.878	0.938	2.068	0.063	2.206	66 x 0.098	2.403	0.126	2.703	7181	8206
508-23-6510	240	0.102	0.978	1.038	2.284	0.063	2.422	58 x 0.124	2.670	0.134	2.986	8984	9604
508-23-6511	300	0.110	1.089	1.149	2.524	0.071	2.678	64 x 0.124	2.926	0.142	3.258	10933	12063
508-23-6512	400	0.118	1.223	1.283	2.813	0.071	2.967	70 x 0.124	3.215	0.154	3.573	12990	14120
10 kV Rated Cable													
508-23-6602	25	0.134	0.545	0.605	1.351	0.048	1.457	44 x 0.098	1.654	0.098	1.898	2802	2989
508-23-6603	35	0.134	0.587	0.647	1.441	0.056	1.565	48 x 0.098	1.762	0.102	2.014	3294	4000
508-23-6604	50	0.134	0.629	0.689	1.532	0.056	1.656	50 x 0.098	1.853	0.106	2.113	3705	4082
508-23-6605	70	0.134	0.693	0.753	1.668	0.056	1.792	54 x 0.098	1.989	0.110	2.257	4235	4570
508-23-6606	95	0.134	0.760	0.820	1.813	0.063	1.951	59 x 0.098	2.148	0.114	2.424	5145	5765
508-23-6607	120	0.134	0.834	0.894	1.973	0.063	2.111	63 x 0.098	2.308	0.122	2.600	5948	6568
508-23-6608	150	0.134	0.898	0.958	2.111	0.063	2.249	67 x 0.098	2.446	0.126	2.746	6867	7487
508-23-6609	185	0.134	0.950	1.010	2.223	0.063	2.361	71 x 0.098	2.558	0.130	2.866	7643	8668
508-23-6610	240	0.134	1.042	1.102	2.422	0.071	2.576	62 x 0.124	2.824	0.138	3.148	9495	10625
508-23-6611	300	0.134	1.137	1.197	2.627	0.071	2.781	66 x 0.124	3.029	0.146	3.371	11296	12426
508-23-6612	400	0.134	1.255	1.315	2.882	0.071	3.036	72 x 0.124	3.284	0.154	3.642	13231	14781
15 kV Rated Cable													
508-23-6702	25	0.177	0.635	0.695	1.545	0.056	1.669	50 x 0.098	1.866	0.106	2.126	3296	3588
508-23-6703	35	0.177	0.677	0.737	1.634	0.056	1.758	53 x 0.098	1.955	0.106	2.183	3721	4013
508-23-6704	50	0.177	0.719	0.779	1.724	0.056	1.848	56 x 0.098	2.045	0.110	2.313	4162	4614
508-23-6705	70	0.177	0.783	0.843	1.863	0.063	2.001	60 x 0.098	2.198	0.118	2.482	4887	5507
508-23-6706	95	0.177	0.850	0.910	2.007	0.063	2.145	64 x 0.098	2.342	0.122	2.634	5678	6298
508-23-6707	120	0.177	0.924	0.984	2.167	0.063	2.305	69 x 0.098	2.502	0.130	2.810	6497	7359
508-23-6708	150	0.177	0.988	1.048	2.305	0.063	2.443	58 x 0.124	2.691	0.134	3.007	7763	8527
508-23-6709	185	0.177	1.040	1.100	2.418	0.071	2.572	61 x 0.124	2.820	0.138	3.144	8623	9753
508-23-6710	240	0.177	1.132	1.192	2.616	0.071	2.770	66 x 0.124	3.018	0.146	3.360	10158	11288
508-23-6711	300	0.177	1.227	1.287	2.822	0.071	2.976	71 x 0.124	3.224	0.154	3.582	11969	13519

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

Three Okopact® (Compact Stranded) Copper Conductors/90°C Rating
US MEASUREMENTS

Catalog Number	Conductor Size - mm²	Nominal Insulation Thickness - inches	Approx. Dia. over Insulation - inches	Approx. Dia. over Screen - inches	Approx. Core O.D. - 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 Wt. - lbs./1000'	Approx. Ship Wt. - lbs./1000'
20 kV Rated Cable													
508-23-6802	35	0.217	0.759	0.819	1.811	0.063	1.949	60 x 0.098	2.176	0.118	2.456	4353	5282
508-23-6803	50	0.217	0.801	0.861	1.902	0.063	2.040	61 x 0.098	2.237	0.118	2.521	4681	5678
508-23-6804	70	0.217	0.865	0.925	2.040	0.063	2.178	65 x 0.098	2.375	0.122	2.667	5362	5982
508-23-6805	95	0.217	0.932	0.992	2.184	0.063	2.322	69 x 0.098	2.519	0.130	2.827	6211	6975
508-23-6806	120	0.217	1.006	1.066	2.344	0.063	2.482	59 x 0.124	2.730	0.138	3.054	7360	8124
508-23-6807	150	0.217	1.070	1.130	2.483	0.063	2.621	63 x 0.124	2.869	0.142	3.201	8333	9463
508-23-6808	185	0.217	1.122	1.182	2.595	0.071	2.749	65 x 0.124	2.997	0.146	3.339	9210	10340
508-23-6809	240	0.217	1.214	1.274	2.794	0.071	2.948	70 x 0.124	3.196	0.154	3.554	10775	11905
30 kV Rated Cable													
508-23-6902	50	0.315	1.001	1.061	2.334	0.063	2.472	59 x 0.124	2.72	0.134	3.036	6244	7008
508-23-6903	70	0.315	1.065	1.125	2.472	0.071	2.626	63 x 0.124	2.874	0.142	3.206	7075	8595
508-23-6904	95	0.315	1.132	1.192	2.593	0.071	2.747	65 x 0.124	2.995	0.146	3.337	7659	9179
508-23-6905	120	0.315	1.206	1.266	2.776	0.071	2.930	70 x 0.124	3.178	0.154	3.536	8883	10013

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

Three Okopact® (Compact Stranded) Copper Conductors/90°C Rating

METRIC MEASUREMENTS

Catalog Number	Conductor Size - mm²	Nominal Insulation Thickness - mm	Approx. Dia. over Insulation - mm	Approx. Dia. over Screen - mm	Approx. Core O.D. - 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 Wt. - Kg/Km	Approx. Ship Wt. - Kg/Km
6 kV Rated Cable													
508-23-6502	25	2.5	12.0	13.5	30.4	1.2	33.0	49 x 2.0	37.1	2.3	42.8	3336	3549
508-23-6503	35	2.5	13.1	14.6	32.7	1.2	35.4	42 x 2.5	40.4	2.4	46.3	4177	4455
508-23-6504	50	2.5	14.1	15.7	35.0	1.2	37.7	45 x 2.5	42.7	2.5	48.9	4751	5147
508-23-6505	70	2.5	15.8	17.3	38.5	1.4	41.6	49 x 2.5	46.6	2.7	53.2	5756	6190
508-23-6506	95	2.5	17.5	19.0	42.1	1.4	45.2	54 x 2.5	50.2	2.8	57.0	7006	7678
508-23-6507	120	2.5	19.4	20.9	46.2	1.6	49.7	59 x 2.5	54.7	2.9	61.7	8197	8752
508-23-6508	150	2.5	21.0	22.5	49.7	1.6	53.2	63 x 2.5	58.2	3.1	65.6	9575	10498
508-23-6509	185	2.5	22.3	23.8	52.5	1.6	56.0	66 x 2.5	61.0	3.2	68.7	10685	12211
508-23-6510	240	2.6	24.8	26.4	58.0	1.6	61.5	58 x 3.15	67.8	3.4	75.8	13368	14291
508-23-6511	300	2.8	27.7	29.2	64.1	1.8	68.0	64 x 3.15	74.3	3.6	82.8	16268	17950
508-23-6512	400	3.0	31.1	32.6	71.5	1.8	75.4	70 x 3.15	81.7	3.9	90.8	19329	21011
10 kV Rated Cable													
508-23-6602	25	3.4	13.8	15.4	34.3	1.2	37.0	44 x 2.5	42.0	2.5	48.2	4169	4448
508-23-6603	35	3.4	14.9	16.4	36.6	1.4	39.8	48 x 2.5	44.8	2.6	51.2	4901	5952
508-23-6604	50	3.4	16.0	17.5	38.9	1.4	42.1	50 x 2.5	47.1	2.7	53.7	5513	6074
508-23-6605	70	3.4	17.6	19.1	42.4	1.4	45.5	54 x 2.5	50.5	2.8	57.3	6302	6800
508-23-6606	95	3.4	19.3	20.8	46.1	1.6	49.6	59 x 2.5	54.6	2.9	61.6	7656	8578
508-23-6607	120	3.4	21.2	22.7	50.1	1.6	53.6	63 x 2.5	58.6	3.1	66.0	8851	9773
508-23-6608	150	3.4	22.8	24.3	53.6	1.6	57.1	67 x 2.5	62.1	3.2	69.7	10218	11141
508-23-6609	185	3.4	24.1	25.7	56.5	1.6	60.0	71 x 2.5	65.0	3.3	72.8	11373	12898
508-23-6610	240	3.4	26.5	28.0	61.5	1.8	65.4	62 x 3.15	71.7	3.5	80.0	14129	15810
508-23-6611	300	3.4	28.9	30.4	66.7	1.8	70.6	66 x 3.15	76.9	3.7	85.6	16808	18490
508-23-6612	400	3.4	31.9	33.4	73.2	1.8	77.1	72 x 3.15	83.4	3.9	92.5	19688	21994
15 kV Rated Cable													
508-23-6702	25	4.5	16.1	17.7	39.2	1.4	42.4	50 x 2.5	47.4	2.7	54.0	4904	5339
508-23-6703	35	4.5	17.2	18.7	41.5	1.4	44.7	53 x 2.5	49.7	2.7	55.4	5537	5971
508-23-6704	50	4.5	18.3	19.8	43.8	1.4	46.9	56 x 2.5	51.9	2.8	58.8	6193	6866
508-23-6705	70	4.5	19.9	21.4	47.3	1.6	50.8	60 x 2.5	55.8	3.0	63.0	7272	8194
508-23-6706	95	4.5	21.6	23.1	51.0	1.6	54.5	64 x 2.5	59.5	3.1	66.9	8449	9371
508-23-6707	120	4.5	23.5	25.0	55.0	1.6	58.5	69 x 2.5	63.6	3.3	71.4	9668	10950
508-23-6708	150	4.5	25.1	26.6	58.5	1.6	62.1	58 x 3.15	68.4	3.4	76.4	11551	12688
508-23-6709	185	4.5	26.4	27.9	61.4	1.8	65.3	61 x 3.15	71.6	3.5	79.9	12831	14512
508-23-6710	240	4.5	28.8	30.3	66.4	1.8	70.4	66 x 3.15	76.7	3.7	85.3	15115	16797
508-23-6711	300	4.5	31.2	32.7	71.7	1.8	75.6	71 x 3.15	81.9	3.9	91.0	17810	20116

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- Galvanized Steel Wire Armor

Three Okopact® (Compact Stranded) Copper Conductors/90°C Rating

METRIC MEASUREMENTS

Catalog Number	Conductor Size - mm^2	Nominal Insulation Thickness - mm	Approx. Dia. over Insulation - mm	Approx. Dia. over Screen - mm	Approx. Core O.D. - 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 Wt. - Kg/Km	Approx. Ship Wt. - Kg/Km
20kV Rated Cable													
508-23-6802	35	5.5	19.3	20.8	46.0	1.6	49.5	60 x 2.5	55.3	3.0	62.4	6477	7860
508-23-6803	50	5.5	20.3	21.9	48.3	1.6	51.8	61 x 2.5	56.8	3.0	64.0	6965	8449
508-23-6804	70	5.5	22.0	23.5	51.8	1.6	55.3	65 x 2.5	60.3	3.1	67.7	7979	8901
508-23-6805	95	5.5	23.7	25.2	55.5	1.6	59.0	69 x 2.5	64.0	3.3	71.8	9242	10379
508-23-6806	120	5.5	25.6	27.1	59.5	1.6	63.0	59 x 3.15	69.3	3.5	77.6	10952	12089
508-23-6807	150	5.5	27.2	28.7	63.1	1.6	66.6	63 x 3.15	72.9	3.6	81.3	12400	14081
508-23-6808	185	5.5	28.5	30.0	65.9	1.8	69.8	65 x 3.15	76.1	3.7	84.8	13704	15386
508-23-6809	240	5.5	30.8	32.4	71.0	1.8	74.9	70 x 3.15	81.2	3.9	90.3	16033	17715
30 kV Rated Cable													
508-23-6902	50	8.0	25.4	26.9	59.3	1.6	62.8	59 x 3.15	69.1	3.4	77.1	9291	10428
508-23-6903	70	8.0	27.1	28.6	62.8	1.8	66.7	63 x 3.15	73.0	3.6	81.4	10528	12789
508-23-6904	95	8.0	28.8	30.3	65.9	1.8	69.8	65 x 3.15	76.1	3.7	84.8	11397	13658
508-23-6905	120	8.0	30.6	32.2	70.5	1.8	74.4	70 x 3.15	80.7	3.9	89.8	13218	14899

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Ampacities

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Alternate Constructions

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