



## 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 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 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 alkalis.
- Sunlight resistant.
- Aluminum and coated copper conductors available.
- Complete prepackaged, color coded, factory tested wiring system.

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US MEASUREMENTS

**Product Data**  
Section 2: Sheet 48

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	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'
<b>6 kV Rated Cable</b>													
114-23-0162	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
114-23-0163	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
114-23-0165	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
114-23-0167	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
114-23-0169	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
114-23-0172	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
114-23-0175	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
114-23-0178	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
114-23-0184	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
114-23-0193	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
114-23-0194	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

<b>10 kV Rated Cable</b>													
115-23-0562	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
115-23-0563	35	0.134	0.587	0.647	1.441	0.056	1.565	47 x 0.098	1.762	0.102	2.014	3199	3491
115-23-0565	50	0.134	0.629	0.689	1.532	0.056	1.656	50 x 0.098	1.853	0.106	2.113	3607	3899
115-23-0567	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
115-23-0569	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
115-23-0572	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
115-23-0575	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
115-23-0578	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
115-23-0584	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
115-23-0593	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
115-23-0594	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

<b>15 kV Rated Cable</b>													
115-23-0662	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
115-23-0663	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
115-23-0665	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
115-23-0667	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
115-23-0669	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
115-23-0672	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
115-23-0675	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
115-23-0678	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
115-23-0684	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
115-23-0693	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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US MEASUREMENTS

**Product Data**  
Section 2: Sheet 48

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	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'
<b>20 kV Rated Cable</b>													
115-23-0763	35	0.217	0.759	0.819	1.811	0.063	1.949	59 x 0.098	2.146	0.114	2.422	4255	5021
115-23-0765	50	0.217	0.801	0.861	1.902	0.063	2.040	61 x 0.098	2.237	0.118	2.521	4680	5300
115-23-0767	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
115-23-0769	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
115-23-0772	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
115-23-0775	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
115-23-0778	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
115-23-0784	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
<b>30 kV Rated Cable</b>													
115-23-0865	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
115-23-0867	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
115-23-0869	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
115-23-0872	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

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

## Product Data Section 2: Sheet 48

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	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
<b>6 kV Rated Cable</b>													
114-23-0162	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
114-23-0163	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
114-23-0165	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
114-23-0167	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
114-23-0169	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
114-23-0172	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
114-23-0175	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
114-23-0178	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
114-23-0184	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
114-23-0193	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
114-23-0194	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
<b>10 kV Rated Cable</b>													
115-23-0562	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
115-23-0563	35	3.4	14.9	16.4	36.6	1.4	39.8	47 x 2.5	44.8	2.6	51.2	4760	5195
115-23-0565	50	3.4	16.0	17.5	38.9	1.4	42.1	50 x 2.5	47.1	2.7	53.7	5367	5802
115-23-0567	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
115-23-0569	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
115-23-0572	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
115-23-0575	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
115-23-0578	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
115-23-0584	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
115-23-0593	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
115-23-0594	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
<b>15 kV Rated Cable</b>													
115-23-0662	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
115-23-0663	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
115-23-0665	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
115-23-0667	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
115-23-0669	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
115-23-0672	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
115-23-0675	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
115-23-0678	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
115-23-0684	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
115-23-0693	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<sup>®</sup> (Compact Stranded) Copper Conductors/90°C Rating

### METRIC MEASUREMENTS

# Product Data

## Section 2: Sheet 48

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	Inner Jacket Thickness - mm	Approx. Dia. over 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
<b>20kV Rated Cable</b>													
115-23-0763	35	5.5	19.3	20.8	46.0	1.6	49.5	59 x 2.5	54.5	2.9	61.5	6331	7471
115-23-0765	50	5.5	20.3	21.9	48.3	1.6	51.8	61 x 2.5	56.8	3.0	64.0	6964	7886
115-23-0767	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
115-23-0769	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
115-23-0772	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
115-23-0775	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
115-23-0778	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
115-23-0784	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
<b>30 kV Rated Cable</b>													
115-23-0865	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
115-23-0867	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
115-23-0869	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
115-23-0872	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

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

#### Alternate Constructions

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