



Okoguard®-Okoseal® Type IEC 60502-2

6, 10, 15, 20, 30 kV Shielded Power Cable

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 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.

Jacket

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

Applications

Okoguard-Okoseal 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.

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 1011-14.
- 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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Product Data Section 2: Sheet 44

US MEASUREMENTS

Catalog Number	Conductor Size - mm ²	Nominal Insulation Thickness - inches	Approx. Dia. over Insulation - inches	Approx. Dia. over Screen - inches	Approx. Core O.D. - inches	Jacket Thickness - inches	Approx. O.D. - inches	Approx. Net Weight - lbs./1000'	Approx. Ship Weight - lbs./1000'
6 kV Rated Cable									
114-23-0102	25	0.098	0.473	0.533	1.191	0.083	1.371	1193	1286
114-23-0103	35	0.098	0.515	0.575	1.282	0.083	1.462	1466	1572
114-23-0105	50	0.098	0.557	0.617	1.373	0.087	1.561	1748	1891
114-23-0107	70	0.098	0.621	0.681	1.511	0.091	1.707	2244	2408
114-23-0109	95	0.098	0.688	0.748	1.653	0.098	1.865	2835	3022
114-23-0112	120	0.098	0.762	0.822	1.813	0.102	2.033	3465	3721
114-23-0115	150	0.098	0.826	0.886	1.952	0.106	2.180	4240	4532
114-23-0118	185	0.098	0.878	0.938	2.064	0.110	2.300	4896	5455
114-23-0124	240	0.102	0.978	1.038	2.280	0.118	2.532	6224	6783
114-23-0130	300	0.110	1.089	1.149	2.520	0.126	2.788	7876	8468
114-23-0140	400	0.118	1.223	1.283	2.809	0.138	3.101	9587	10349
114-23-0150	500	0.126	1.366	1.426	3.118	0.150	3.436	12352	13285

10 kV Rated Cable									
115-23-0502	25	0.134	0.545	0.605	1.347	0.087	1.535	1391	1534
115-23-0503	35	0.134	0.587	0.647	1.437	0.091	1.633	1672	1896
115-23-0505	50	0.134	0.629	0.689	1.528	0.094	1.730	1962	2190
115-23-0507	70	0.134	0.693	0.753	1.664	0.098	1.876	2500	2728
115-23-0509	95	0.134	0.760	0.820	1.809	0.102	2.029	3105	3410
115-23-0512	120	0.134	0.834	0.894	1.969	0.110	2.205	3778	4146
115-23-0515	150	0.134	0.898	0.958	2.107	0.114	2.351	4580	4953
115-23-0518	185	0.134	0.950	1.010	2.219	0.118	2.471	5263	5636
115-23-0524	240	0.134	1.042	1.102	2.418	0.122	2.678	6527	7060
115-23-0530	300	0.134	1.137	1.197	2.623	0.130	2.899	8130	8892
115-23-0540	400	0.134	1.255	1.315	2.878	0.142	3.178	9815	10735
115-23-0550	500	0.134	1.382	1.442	3.152	0.150	3.470	12430	13363

15 kV Rated Cable									
115-23-0602	25	0.177	0.635	0.695	1.541	0.094	1.743	1648	1802
115-23-0603	35	0.177	0.677	0.737	1.630	0.094	1.832	1903	2131
115-23-0605	50	0.177	0.719	0.779	1.720	0.098	1.932	2263	2568
115-23-0607	70	0.177	0.783	0.843	1.859	0.106	2.087	2821	3126
115-23-0609	95	0.177	0.850	0.910	2.003	0.110	2.239	3474	3842
115-23-0612	120	0.177	0.924	0.984	2.163	0.114	2.407	4133	4542
115-23-0615	150	0.177	0.988	1.048	2.301	0.118	2.553	5004	5728
115-23-0618	185	0.177	1.030	1.090	2.392	0.122	2.652	5623	6193
115-23-0624	240	0.177	1.132	1.192	2.612	0.130	2.888	7004	7766
115-23-0630	300	0.177	1.227	1.287	2.818	0.138	3.110	8556	9318
115-23-0640	400	0.177	1.333	1.393	3.047	0.146	3.357	10258	11043
115-23-0650	500	0.177	1.472	1.532	3.347	0.157	3.679	13004	14082

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US MEASUREMENTS

Catalog Number	Conductor Size - mm ²	Nominal Insulation Thickness - inches	Approx. Dia. over Insulation - inches	Approx. Dia. over Screen - inches	Approx. Core O.D. - inches	Jacket Thickness - inches	Approx. O.D. - inches	Approx. Net Weight - lbs./1000'	Approx. Ship Weight - lbs./1000'
20 kV Rated Cable									
115-23-0703	35	0.217	0.759	0.819	1.807	0.102	2.027	2217	2522
115-23-0705	50	0.217	0.801	0.861	1.898	0.106	2.126	2563	2931
115-23-0707	70	0.217	0.865	0.925	2.036	0.110	2.272	3126	3494
115-23-0709	95	0.217	0.932	0.992	2.180	0.114	2.424	3851	4224
115-23-0712	120	0.217	1.006	1.066	2.340	0.122	2.600	4553	5112
115-23-0715	150	0.217	1.070	1.130	2.479	0.126	2.747	5355	5947
115-23-0718	185	0.217	1.122	1.182	2.591	0.130	2.867	6063	6825
115-23-0724	240	0.217	1.214	1.274	2.790	0.138	3.082	7393	8155
115-23-0730	300	0.217	1.309	1.369	2.995	0.146	3.305	9016	9949
115-23-0740	400	0.217	1.427	1.487	3.250	0.154	3.576	10764	11697
115-23-0750	500	0.217	1.554	1.614	3.524	0.161	3.864	13545	15354
30 kV Rated Cable									
115-23-0805	50	0.315	1.001	1.061	2.330	0.122	2.590	3472	3952
115-23-0807	70	0.315	1.065	1.125	2.468	0.126	2.736	4048	4772
115-23-0809	95	0.315	1.132	1.192	2.612	0.130	2.888	4812	5536
115-23-0812	120	0.315	1.206	1.266	2.772	0.138	3.064	5522	6246
115-23-0815	150	0.315	1.270	1.330	2.911	0.142	3.211	6426	7211
115-23-0818	185	0.315	1.322	1.382	3.023	0.146	3.333	7110	7895
115-23-0824	240	0.315	1.414	1.474	3.222	0.154	3.548	8545	9478
115-23-0830	300	0.315	1.509	1.569	3.427	0.157	3.759	10232	11310
115-23-0840	400	0.315	1.627	1.687	3.682	0.169	4.038	12091	13900
115-23-0850	500	0.315	1.754	1.814	3.956	0.177	4.328	14959	16768

Visit Okonite's web site, 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 ²	Nominal Insulation Thickness - mm	Approx. Dia. over Insulation - mm	Approx. Dia. over Screen - mm	Approx. Core O.D. - mm	Jacket Thickness - mm	Approx. O.D. - mm	Approx. Net Weight - Kg/Km	Approx. Ship Weight - Kg/Km
6 kV Rated Cable									
114-23-0102	25	2.5	12.0	13.5	30.3	2.1	34.8	1775	1914
114-23-0103	35	2.5	13.1	14.6	32.6	2.1	37.1	2181	2339
114-23-0105	50	2.5	14.1	15.7	34.9	2.2	39.6	2601	2814
114-23-0107	70	2.5	15.8	17.3	38.4	2.3	43.4	3339	3583
114-23-0109	95	2.5	17.5	19.0	42.0	2.5	47.4	4218	4497
114-23-0112	120	2.5	19.4	20.9	46.1	2.6	51.6	5156	5537
114-23-0115	150	2.5	21.0	22.5	49.6	2.7	55.4	6309	6744
114-23-0118	185	2.5	22.3	23.8	52.4	2.8	58.4	7285	8117
114-23-0124	240	2.6	24.8	26.4	57.9	3.0	64.3	9261	10093
114-23-0130	300	2.8	27.7	29.2	64.0	3.2	70.8	11719	12600
114-23-0140	400	3.0	31.1	32.6	71.3	3.5	78.8	14265	15399
114-23-0150	500	3.2	34.7	36.2	79.2	3.8	87.3	18380	19768

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10 kV Rated Cable									
115-23-0502	25	3.4	13.8	15.4	34.2	2.2	39.0	2070	2283
115-23-0503	35	3.4	14.9	16.4	36.5	2.3	41.5	2488	2821
115-23-0505	50	3.4	16.0	17.5	38.8	2.4	43.9	2919	3259
115-23-0507	70	3.4	17.6	19.1	42.3	2.5	47.7	3720	4059
115-23-0509	95	3.4	19.3	20.8	45.9	2.6	51.5	4620	5074
115-23-0512	120	3.4	21.2	22.7	50.0	2.8	56.0	5622	6169
115-23-0515	150	3.4	22.8	24.3	53.5	2.9	59.7	6815	7370
115-23-0518	185	3.4	24.1	25.7	56.4	3.0	62.8	7831	8386
115-23-0524	240	3.4	26.5	28.0	61.4	3.1	68.0	9712	10505
115-23-0530	300	3.4	28.9	30.4	66.6	3.3	73.6	12097	13231
115-23-0540	400	3.4	31.9	33.4	73.1	3.6	80.7	14605	15974
115-23-0550	500	3.4	35.1	36.6	80.1	3.8	88.1	18496	19884

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15 kV Rated Cable									
115-23-0602	25	4.5	16.1	17.7	39.1	2.4	44.3	2452	2681
115-23-0603	35	4.5	17.2	18.7	41.4	2.4	46.5	2832	3171
115-23-0605	50	4.5	18.3	19.8	43.7	2.5	49.1	3367	3821
115-23-0607	70	4.5	19.9	21.4	47.2	2.7	53.0	4198	4651
115-23-0609	95	4.5	21.6	23.1	50.9	2.8	56.9	5169	5717
115-23-0612	120	4.5	23.5	25.0	54.9	2.9	61.1	6150	6758
115-23-0615	150	4.5	25.1	26.6	58.4	3.0	64.8	7446	8523
115-23-0618	185	4.5	26.2	27.7	60.8	3.1	67.4	8367	9215
115-23-0624	240	4.5	28.8	30.3	66.3	3.3	73.4	10422	11556
115-23-0630	300	4.5	31.2	32.7	71.6	3.5	79.0	12731	13865
115-23-0640	400	4.5	33.9	35.4	77.4	3.7	85.3	15264	16432
115-23-0650	500	4.5	37.4	38.9	85.0	4.0	93.4	19350	20954

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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	Jacket Thickness - mm	Approx. O.D. - mm	Approx. Net Weight - Kg/Km	Approx. Ship Weight - Kg/Km
20 kV Rated Cable									
115-23-0703	35	5.5	19.3	20.8	45.9	2.6	51.5	3299	3753
115-23-0705	50	5.5	20.3	21.9	48.2	2.7	54.0	3814	4361
115-23-0707	70	5.5	22.0	23.5	51.7	2.8	57.7	4651	5199
115-23-0709	95	5.5	23.7	25.2	55.4	2.9	61.6	5730	6285
115-23-0712	120	5.5	25.6	27.1	59.4	3.1	66.0	6775	7607
115-23-0715	150	5.5	27.2	28.7	63.0	3.2	69.8	7968	8849
115-23-0718	185	5.5	28.5	30.0	65.8	3.3	72.8	9022	10156
115-23-0724	240	5.5	30.8	32.4	70.9	3.5	78.3	11001	12135
115-23-0730	300	5.5	33.2	34.8	76.1	3.7	83.9	13416	14804
115-23-0740	400	5.5	36.2	37.8	82.6	3.9	90.8	16017	17405
115-23-0750	500	5.5	39.5	41.0	89.5	4.1	98.1	20155	22847

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30kV Rated Cable									
115-23-0805	50	8.0	25.4	26.9	59.2	3.1	65.8	5166	5881
115-23-0807	70	8.0	27.1	28.6	62.7	3.2	69.5	6023	7101
115-23-0809	95	8.0	28.8	30.3	66.3	3.3	73.4	7160	8238
115-23-0812	120	8.0	30.6	32.2	70.4	3.5	77.8	8217	9294
115-23-0815	150	8.0	32.3	33.8	73.9	3.6	81.6	9562	10730
115-23-0818	185	8.0	33.6	35.1	76.8	3.7	84.7	10580	11748
115-23-0824	240	8.0	35.9	37.4	81.8	3.9	90.1	12715	14103
115-23-0830	300	8.0	38.3	39.9	87.0	4.0	95.5	15225	16829
115-23-0840	400	8.0	41.3	42.8	93.5	4.3	102.6	17991	20683
115-23-0850	500	8.0	44.6	46.1	100.5	4.5	109.9	22259	24951

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Alternate Constructions

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