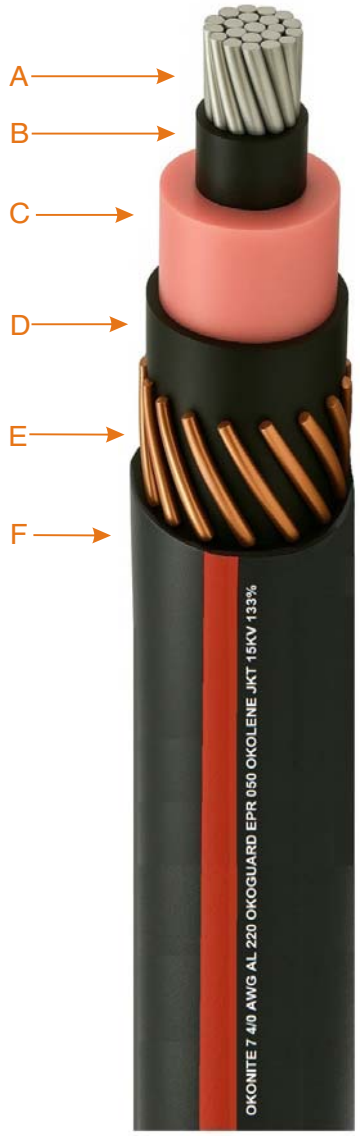
Okoguard® URO-J

15kV Underground Primary Distribution Cable-Jacketed

Red Identification Stripes

Aluminum Conductor/105°C Rating
100% and 133% Insulation Levels



A Conductor-Stranded Aluminum
B Strand Screen-Extruded Semiconducting EPR
C Insulation-Okoguard-EPR
D Insulation Screen-Extruded Semiconducting EPR
E Concentric Conductor-Bare Copper Wires
F Encapsulating Jacket-Okolene with 3 extruded red ID stripes and NESC lightning bolt

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.

An insulation screen of ethylene-propylene rubber is extruded over the insulation. The bare copper concentric wires are uniformly spaced around the insulation screen. The overall polyethylene jacket provides protection against mechanical damage and corrosion.

Product identification is provided through the use of three red stripes placed 120° apart in the black jacket with an NESC lightning bolt.

Applications

Okoguard URO-J cables provide maximum circuit longevity in underground residential distribution systems. They can be buried directly or installed in underground ducts or conduits.

Specifications

Central Conductor: Aluminum per ASTM B-609, Class B stranded per B-231.

Conductor Screen: Extruded semiconducting ethylene-propylene rubber meets or exceeds the requirements of ICEA S-94-649, AEIC CS8, and CSA C68.5.

Insulation: Extruded Okoguard meets or exceeds the requirements of ICEA S-94-649, AEIC CS8, and CSA C68.5.

Insulation Screen: Extruded semiconducting ethylene-propylene rubber meets or exceeds the requirements of ICEA S-94-649, AEIC CS8, and C68.5.

Concentric Conductor: Bare copper wires.

Jacket: Black Okolene with red extruded stripes meets or exceeds the requirements of ICEA S-94-649, AEIC CS8, and CSA C68.5 for polyethylene jackets.

Product Features

- Triple tandem extruded, all EPR system
- Okoguard cables meet or exceed ICEA standards.
- Meets RUS 1728.204 for cables with filled strand or solid conductor and 133% insulation level.
- 105°C continuous operating temperature.
- 140°C emergency rating.
- 250°C short circuit rating.
- Excellent corona resistance.
- Low dielectric constant and power factor.
- Screens are clean stripping.
- Exceptional resistance to "treeing".
- Moisture resistant.
- Overall jacket provides extended life.
- Red extruded stripes.
- Excellent resistance to most chemicals.
- Can be listed by UL as Type MV-90 on Special Orders.
- CSA C68.5 listed, LTGG (-40°C), SR.
- Design Options:
  - Additional conductor sizes
  - Filled strand
  - Copper central conductor
  - Copper flat strap concentric neutral
  - Product identification via colored jackets.
  - Semiconducting jacket
- Improved Temperature Rating. Okoguard insulation system has been tested and qualified for operation at 105°C continuous and 140°C emergency operating temperature.
- Minimum installation temperature of -40°C.

Okoguard URO-J

15kV Underground Primary Distribution Cable-Jacketed

Red Identification Stripes

Aluminum Conductor/105°C Rating

100% Insulation Level

Okoguard Insulation: 175 mils 100% Insulation Level

Catalog Number	Conductor size (AWG or kcmil)	Nominal Dia. over Insulation (in.)	Insulation Screen Thickness (mils)	Nominal Dia. over Insulation Screen (in.)	Copper Neutral, No. x AWG (1)	Nominal O.D. (in.)	Approx. Net Weight lbs./1000'	Approx. Ship Weight lbs./1000'	90°C Ampacity Direct Burial (2)	90°C Ampacity Duct (2)	105°C Ampacity Direct Burial (2)	105°C Ampacity Duct (2)
FULL NEUTRAL												
161-23-2057	2(1X)	0.66	30	0.73	10X14	0.97	499	603	170	125	185	135
161-23-2060	2(7X)	0.67	30	0.75	10X14	0.98	512	568	170	125	185	135
161-23-2066	1(19X)	0.72	30	0.79	13X14	1.03	587	698	195	145	210	155
161-23-2069	1/0(1X)	0.72	30	0.80	16X14	1.03	642	747	220	160	235	175
161-23-2072	1/0(19X)	0.75	30	0.83	16X14	1.06	662	725	220	160	235	175
161-23-2075	2/0(19X)	0.80	30	0.87	14X12	1.14	791	910	250	185	270	205
161-23-2078	3/0(19X)	0.85	30	0.92	16X12	1.19	908	1029	285	210	310	230
161-23-2081	4/0(19X)	0.90	30	0.98	14X10	1.29	1129	1238	320	240	350	260
161-23-2084	250(37X)	0.97	30	1.04	16X10	1.36	1268	1418	350	270	380	295
161-23-2090	350(37X)	1.07	40	1.17	18X.1078	1.50	1598	1793	425	310	460	340
1/3 NEUTRAL												
160-23-2057	2(1X)	0.66	30	0.73	6X14	0.97	452	528	150	120	165	135
160-23-2060	2(7X)	0.67	30	0.75	6X14	0.98	465	579	150	120	165	135
160-23-2066	1(19X)	0.72	30	0.79	6X14	1.03	505	617	175	140	185	150
160-23-2069	1/0(1X)	0.72	30	0.80	6X14	1.03	525	663	195	155	215	170
160-23-2072	1/0(19X)	0.74	30	0.83	6X14	1.06	545	662	195	155	215	170
160-23-2075	2/0(19X)	0.80	30	0.87	7X14	1.11	611	726	225	180	240	195
160-23-2078	3/0(19X)	0.85	30	0.92	9X14	1.16	695	889	255	200	275	220
160-23-2081	4/0(19X)	0.90	30	0.98	11X14	1.21	792	922	285	235	310	255
160-23-2084	250(37X)	0.97	30	1.04	13X14	1.28	892	1018	305	250	330	275
160-23-2090	350(37X)	1.07	40	1.17	18X14	1.41	1135	1315	375	310	405	335
160-23-2093	500(37X)	1.20	40	1.30	16X12	1.57	1470	1691	450	370	490	405
160-23-2096	750(61X)	1.39	40	1.49	16X.0966	1.86	2062	2402	545	460	595	505
160-23-2099	1000(61X)	1.54	40	1.64	18X.1052	2.03	2580	2877	620	520	675	570

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

(1) Individual wire size and count may vary. The resulting combination meets the 1/3 or full neutral, size requirement.

Ampacities

(2) Full neutral, single phase ampacities are based on ICEA P-117-734 for 90°C or 105°C conductor temperature, 25°C ambient temperature, 100% load factor, and earth thermal resistivity of RHO 90. One third neutral ampacities are based on triplexed or triangular configuration for the same conditions stated above.

Okoguard URO-J

15kV Underground Primary Distribution Cable-Jacketed

Red Identification Stripes

Aluminum Conductor/105°C Rating

133% Insulation Levels

Okoguard Insulation: 220 mils 133% Insulation Level

Catalog Number	Conductor size (AWG or kcmil)	Nominal Dia. over Insulation (in.)	Insulation Screen Thickness (mils)	Nominal Dia. over Insulation Screen (in.)	Copper Neutral, No. x AWG (1)	Nominal O.D. (in.)	Approx. Net Weight lbs./1000'	Approx. Ship Weight lbs./1000'	90°C Ampacity Direct Burial (2)	90°C Ampacity Duct (2)	105°C Ampacity Direct Burial (2)	105°C Ampacity Duct (2)
FULL NEUTRAL												
▲161-23-3057	2(1X)	0.74	30	0.82	10X14	1.06	572	635	170	125	185	135
161-23-3060	2(7X)	0.77	30	0.84	10X14	1.08	590	662	170	125	185	135
161-23-3066	1(19X)	0.81	30	0.88	13X14	1.12	669	781	195	145	210	155
▲161-23-3069	1/0(1X)	0.80	30	0.89	16X14	1.12	721	792	220	160	235	175
▲161-23-9525	1/0(1X)	0.80	30	0.89	10X14*	1.12	651	718	230	170	245	185
161-23-3072	1/0(19X)	0.84	30	0.92	16X14	1.15	746	818	220	160	235	175
161-23-3075	2/0(19X)	0.89	30	0.92	14X12	1.23	900	1012	250	185	270	205
161-23-3078	3/0(19X)	0.94	30	1.01	16X12	1.28	998	1136	285	210	310	230
161-23-3081	4/0(19X)	0.98	30	1.06	14X10	1.38	1226	1357	320	240	350	260
161-23-3084	250(37X)	1.06	40	1.16	16X10	1.47	1405	1619	350	270	380	295
161-23-3090	350(37X)	1.16	40	1.26	18X.1078	1.59	1716	1912	425	310	460	340
1/3 NEUTRAL												
160-23-3057	2(1X)	0.74	30	0.82	6X14	1.06	525	621	150	120	165	135
160-23-3060	2(7X)	0.76	30	0.84	6X14	1.08	543	659	150	120	165	135
160-23-3066	1(19X)	0.81	30	0.88	6X14	1.12	586	700	175	140	185	150
160-23-3069	1/0(1X)	0.80	30	0.89	6X14	1.12	604	715	195	155	215	170
160-23-3072	1/0(19X)	0.84	30	0.92	6X14	1.15	629	748	195	155	215	170
160-23-3075	2/0(19X)	0.89	30	0.96	7X14	1.20	699	826	225	180	240	195
160-23-3078	3/0(19X)	0.94	30	1.01	9X14	1.25	787	916	255	200	275	220
160-23-3081	4/0(19X)	0.99	30	1.06	11X14	1.30	884	1002	285	235	310	255
160-23-3084	250(37X)	1.06	40	1.16	13X14	1.40	1024	1168	305	250	330	275
160-23-3090	350(37X)	1.16	40	1.26	18X14	1.50	1243	1458	375	310	405	335
160-23-3093	500(37X)	1.29	40	1.39	16X12	1.72	1650	1959	450	370	490	405
160-23-3096	750(61X)	1.47	40	1.58	16X.0966	1.95	2201	2518	545	460	595	505
160-23-3099	1000(61X)	1.64	55	1.77	18X.1052	2.16	2802	3223	620	520	675	570
**▲160-23-9590	1100(61X)	1.61	55	1.74	18X12**	2.01	2470	2833	675	575	730	620

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

* - Special design 64% neutral

** - Special design 1/6 neutral, compact conductor, non-CSA listed, reduced jacket thickness not in compliance with AEIC/ICEA.

(1) Individual wire size and count may vary. The resulting combination meets the 1/3 or full neutral, size requirement.

▲**Authorized stock item.** Available from our Customer Service Centers.

Ampacities

(2) Full neutral, single phase ampacities are based on ICEA P-117-734 for 90°C or 105°C conductor temperature, 25°C ambient temperature, 100% load factor, and earth thermal resistivity of RHO 90.
One third neutral ampacities are based on triplexed or triangular configuration for the same conditions stated above.

THE OKONITE COMPANY
Ramsey, New Jersey 07446