



Okoguard® URO-J®

25kV Underground Primary Distribution Cable-Jacketed OKOLENE® Jacket with Red Identification Stripes



Aluminum Filled Strand 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 three 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 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.

Ethylene-propylene rubber screens are extruded over the conductor and the insulation. The triple tandem extrusion of these screens with the insulation provides optimum electrical characteristics.

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.

Filled Strand: Water swellable agent meets or exceeds ICEA T-31-610 water penetration resistance and ANSI/NEMA Class A connectorability requirements.

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 CSA C68.5.

Concentric Conductor: Bare copper concentric wires helically applied.

Jacket: Black Okolene with 3 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.
- Improved Temperature Rating. Okoguard insulation system has been tested and qualified for operation at 105°C continuous and 140°C emergency operating temperature.
- 250°C short circuit rating.
- Excellent corona resistance.
- Low dielectric constant and power factor.
- Screens are clean stripping.
- Exceptional resistance to "treeing".
- Moisture resistant.
- Excellent resistance to most chemicals.
- Can be listed by UL as Type MV-90 or MV-105 on special orders.
- CSA C68.5 listed, LTGG (-40°C), SR.
- Design Options:
 - Triplexed or Paralleled
 - Cable-in-Conduit
 - Flat Strap Neutral
 - Tinned Wires or Straps
 - Water Blocking Powder or Tape
 - Product identification via colored jackets

Optional Jacket/UL Ratings

- Semi-conducting PE Jacket.
- FR-PVC Jacket (MV-105).
- XLPE Jacket (MV-105).
- Okolene Polyethylene (MV-90).
- Okolene Polypropylene (non-UL).
- OKOLON TP-CPE® (MV-105).
- OKOCLEAR TP® (TPPO-low smoke zero halogen) MV-105.

Okoguard URO-J

25kV Underground Primary Distribution Cable-Jacketed

Red Identification Stripes

Aluminum Filled Strand Conductor/105°C Rating
100% Insulation Levels

Product Data

Section 2: Sheet 67



Okoguard Insulation: 260 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												
163-23-4066	1(19X)	0.89	30	0.96	13X14	1.20	750	812	195	145	210	155
▲ 161-23-4069	1/0(1X)	0.89	30	0.97	16X14	1.20	798	870	220	160	235	175
▲ 163-23-4072	1/0(19X)	0.92	30	1.00	16X14	1.24	830	905	220	160	235	175
163-23-4074	2/0(19X)	0.97	30	1.05	14X12	1.32	990	1104	250	185	270	205
163-23-4079	3/0(19X)	1.02	30	1.01	16X12	1.37	1097	1215	285	210	310	230
163-23-4081	4/0(19X)	1.08	40	1.18	14X10	1.49	1357	1531	320	240	350	260
163-23-4084	250(37X)	1.14	40	1.24	16X10	1.55	1517	1701	350	270	380	295
163-23-4090	350(37X)	1.25	40	1.35	18X.1078	1.74	1894	2122	425	310	460	340
1/3 NEUTRAL												
162-23-4070	1(19X)	0.88	30	0.96	6X14	1.20	668	735	175	140	185	150
162-23-4072	1/0(19X)	0.93	30	1.00	6X14	1.23	711	788	195	155	215	170
162-23-4074	2/0(19X)	0.97	30	1.05	7X14	1.28	787	864	225	180	240	195
162-23-4075	3/0(19X)	1.02	30	1.01	9X14	1.33	878	996	255	200	275	220
▲ 162-23-4081	4/0(19X)	1.07	40	1.17	11X14	1.42	1009	1121	285	235	310	255
162-23-4097	250(37X)	1.14	40	1.24	13X14	1.48	1130	1242	305	250	330	275
162-23-4090	350(37X)	1.24	40	1.34	18X14	1.58	1362	1546	375	310	405	335
▲ 162-23-4093	500(37X)	1.37	40	1.47	16X12	1.81	1785	1989	450	370	490	405
▲ 162-23-4096	750(61X)	1.57	40	1.67	16X.0966	2.03	2362	2667	545	460	595	505
▲ 162-23-4099	1000(61X)	1.70	55	1.85	18X.1052	2.23	2947	3572	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.

▲ **Authorized Stock Item** - Available from 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.

Okoguard URO-J

25kV Underground Primary Distribution Cable-Jacketed

Red Identification Stripes

Aluminum Filled Strand Conductor/105°C Rating
133% Insulation Levels

Product Data

Section 2: Sheet 67



Okoguard Insulation: 320 mils 133% Insulation Level

Catalog Number	Conductor size (AWG or Kcmil)	Number of Strands	Nominal Dia. over Insulation (in.)	Insulation Screen Thickness (mils)	Nominal Dia. over Insulation Screen (in.)	Copper Full 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													
163-23-4230	1(19X)	1.01	40	1.09	13X14	1.32	879	993	195	145	210	155	
163-23-4232	1/0(19X)	1.05	40	1.15	16X14	1.36	968	1086	220	160	235	175	
163-23-4234	2/0(19X)	1.09	40	1.19	14X12	1.46	1161	1322	250	185	270	205	
163-23-4236	3/0(19X)	1.14	40	1.24	16X12	1.51	1274	1458	285	210	310	230	
163-23-4238	4/0(19X)	1.20	40	1.30	14X10	1.61	1520	1707	320	240	350	260	
163-23-4240	250(37X)	1.26	40	1.36	16X10	1.74	1742	1958	350	270	380	295	
163-23-4242	350(37X)	1.37	40	1.47	18X.1078	1.86	2074	2456	425	310	460	340	
1/3 NEUTRAL													
162-23-4230	1(19X)	1.01	40	1.09	6X14	1.32	796	873	175	140	185	150	
162-23-4232	1/0(19X)	1.05	40	1.15	6X14	1.36	850	929	195	155	215	170	
162-23-4234	2/0(19X)	1.09	40	1.19	7X14	1.43	954	1106	225	180	240	195	
162-23-4236	3/0(19X)	1.14	40	1.24	9X14	1.48	1053	1165	255	200	275	220	
162-23-4238	4/0(19X)	1.20	40	1.30	11X14	1.54	1167	1351	285	235	310	255	
162-23-4240	250(37X)	1.26	40	1.36	13X14	1.60	1289	1473	305	250	330	275	
162-23-4242	350(37X)	1.37	40	1.47	18X14	1.77	1595	1811	375	310	405	335	
162-23-4244	500(37X)	1.50	40	1.60	16X12	1.93	1976	2358	450	370	490	405	
162-23-4246	750(61X)	1.68	55	1.82	16X.0966	2.20	2640	3008	545	460	595	505	
162-23-4248	1000(61X)	1.84	55	1.98	18X.1052	2.36	3194	3567	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.