

Okoguard® URO-J

25kV 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 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.

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 CSA 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 100% 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.
 - CSAC68.5 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 jackets
 - 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.

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100% Insulation Levels



Product Data

Section 2: Sheet 39

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												
161-23-4066	1(19X)	0.89	30	0.96	13X14	1.20	747	872	195	145	210	155
▲ 161-23-4069	1/0(1X)	0.89	30	0.97	16X14	1.20	798	870	220	160	235	175
161-23-4072	1/0(19X)	0.93	30	1.00	16X14	1.24	832	898	220	160	235	175
161-23-4075	2/0(19X)	0.97	30	1.05	14X12	1.32	986	1117	250	185	270	205
161-23-4078	3/0(19X)	1.02	30	1.01	16X12	1.37	1092	1210	285	210	310	230
161-23-4081	4/0(19X)	1.08	40	1.18	14X10	1.49	1357	1550	320	240	350	260
161-23-4084	250(37X)	1.14	40	1.24	16X10	1.55	1507	1724	350	270	380	295
161-23-4090	350(37X)	1.25	40	1.35	18X.1078	1.74	1887	2166	425	310	460	340

1/3 NEUTRAL												
160-23-4066	1(19X)	0.88	30	0.96	6X14	1.19	659	791	175	140	185	150
160-23-4072	1/0(19X)	0.93	30	1.00	6X14	1.24	715	841	195	155	215	170
160-23-4075	2/0(19X)	0.97	30	1.05	7X14	1.28	784	912	225	180	240	195
160-23-4078	3/0(19X)	1.02	30	1.01	9X14	1.33	875	994	255	200	275	220
160-23-4081	4/0(19X)	1.08	40	1.18	11X14	1.41	1011	1128	285	235	310	255
160-23-4084	250(37X)	1.14	40	1.24	13X14	1.47	1115	1330	305	250	330	275
160-23-4090	350(37X)	1.24	40	1.34	18X14	1.58	1347	1566	375	310	405	335
160-23-4093	500(37X)	1.38	40	1.48	16X12	1.81	1777	1986	450	370	490	405
160-23-4096	750(61X)	1.57	40	1.67	16X.0966	2.03	2396	3156	545	460	595	505
160-23-4099	1000(61X)	1.72	55	1.85	18X.1052	2.24	2952	3533	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.

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Red Identification Stripes

Aluminum Conductor/105°C Rating
133% Insulation Levels



Product Data

Section 2: Sheet 39

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	105°C Ampacity
FULL NEUTRAL											
161-23-5066	1(19X)	1.01	40	1.09	13X14	1.32	876	1047	195	145	210
161-23-5072	1/0(19X)	1.05	40	1.15	16X14	1.39	994	1138	220	160	235
161-23-5075	2/0(19X)	1.09	40	1.19	14X12	1.46	1157	1353	250	185	270
161-23-5078	3/0(19X)	1.14	40	1.24	16X12	1.51	1269	2503	285	210	310
161-23-5081	4/0(19X)	1.20	40	1.30	14X10	1.61	1514	1819	320	240	350
161-23-5084	250(37X)	1.26	40	1.36	16X10	1.74	1733	2032	350	270	380
161-23-5090	350(37X)	1.37	40	1.47	18X.1074	1.86	2068	2349	425	310	460

1/3 NEUTRAL											
160-23-5066	1(19X)	1.01	40	1.09	6X14	1.32	793	966	175	140	185
160-23-5072	1/0(19X)	1.05	40	1.15	6X14	1.39	877	1022	195	155	215
160-23-5075	2/0(19X)	1.09	40	1.19	7X14	1.43	952	1099	225	180	240
160-23-5078	3/0(19X)	1.14	40	1.24	9X14	1.48	1049	1261	255	200	275
160-23-5081	4/0(19X)	1.20	40	1.30	11X14	1.54	1162	1378	285	235	310
160-23-5084	250(37X)	1.26	40	1.36	13X14	1.60	1281	1490	305	250	330
160-23-5090	350(37X)	1.37	40	1.47	18X14	1.77	1588	1881	375	310	405
160-23-5093	500(37X)	1.50	40	1.60	16X12	1.93	1968	2275	450	370	490
160-23-5096	750(61X)	1.68	55	1.82	16X.0966	2.20	2647	3122	545	460	595
160-23-5099	1000(61X)	1.84	55	1.98	18X.1052	2.36	3189	3771	620	520	675

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(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.