



Okoguard® URO-J

35kV 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 and AEIC CS8.

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

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

Concentric Conductor: Bare copper wires.

Jacket: Black Okolene with red extruded stripes meets or exceeds the requirements of ICEA S-94-649 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.
- Excellent resistance to most chemicals.
- Can be listed by UL as Type MV-90 on Special Orders.
- Can be CSA listed to C68.5 on special orders
- 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. Appropriate jacket should be selected when cable is to be operated at these higher temperatures.
- Minimum installation temperature of -40°C.

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Red Identification Stripes

Aluminum Conductor/105°C Rating

100% Insulation Level

Product Data Section 2: Sheet 40

Okoguard Insulation: 345 mils 100% Insulation Level

Catalog Number	Conductor Size AWG/kcmil	Nominal Dia. Over Insulation	Nominal Dia. Over Insulation Screen	Copper Neutral Number x AWG (1)	Nominal O.D. (In.)	Approx. Net Weight lbs./1000'	Approx. Ship Weight lbs./1000'	90°C Ampacity (2) Direct Burial	90°C Ampacity (2) Duct	105°C Ampacity (2) Direct Burial	105°C Ampacity (2) Duct
FULL NEUTRAL											
▲ 161-23-6072	1/0 (19x)	1.10	1.20	16 x 14	1.44	1061	1179	205	165	225	180
▲ 163-23-6072*	1/0 (19x)	1.10	1.20	16 x 14	1.44	1063	1181	205	165	225	180
161-23-6075	2/0 (19x)	1.15	1.25	13 x 12	1.52	1238	1416	240	190	260	205
161-23-6078	3/0 (19x)	1.20	1.30	16 x 12	1.57	1374	1552	270	215	295	230
161-23-6081	4/0 (19x)	1.26	1.36	13 x 10	1.74	1671	1921	310	240	335	265
161-23-6084	250 (37x)	1.32	1.42	16 x 10	1.79	1856	2106	340	265	370	290
161-23-6090	350 (37x)	1.42	1.52	20 x 10	1.90	2177	2525	410	320	445	350

1/3 NEUTRAL											
160-23-6072	1/0 (19x)	1.11	1.21	6 x 14	1.45	966	1082	195	160	210	175
160-23-6075	2/0 (19x)	1.15	1.25	7 x 14	1.49	1045	1223	220	185	240	200
160-23-6078	3/0 (19x)	1.20	1.30	9 x 14	1.54	1148	1326	250	210	270	230
160-23-6081	4/0 (19x)	1.26	1.36	11 x 14	1.60	1267	1445	285	235	310	260
160-23-6084	250 (37x)	1.32	1.42	13 x 14	1.72	1451	1701	305	255	330	280
160-23-6090	350 (37x)	1.42	1.52	18 x 14	1.82	1707	1957	370	315	405	345
160-23-6093	500 (37x)	1.55	1.68	16 x 12	2.02	2167	2515	450	380	485	415
160-23-6096	750 (61x)	1.74	1.88	15 x 10	2.25	2817	3323	545	470	595	515
160-23-6099	1000 (61x)	1.89	2.03	18 x **(A)	2.40	3366	3872	620	530	675	585

* These items include filled strand.

** Special Conductor Size, (A) wire OD=0.1052"

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

▲ **Authorized Stock Item** - Available from Customer Service centers.

(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.

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35kV Underground Primary Distribution Cable-Jacketed

Red Identification Stripes

Aluminum Conductor/105°C Rating

133% Insulation Level

Product Data Section 2: Sheet 40

Okoguard Insulation: 420 mils 133% Insulation Level

Catalog Number	Conductor Size AWG/kcmil	Number of Strands	Nominal Dia. Over Insulation	Nominal Dia. Over Insulation Screen	Copper Neutral Number x AWG (1)	Nominal O.D. (In.)	Approx. Net Weight lbs./1000'	Approx. Ship Weight lbs./1000'	90°C Ampacity (2) Direct Burial	90°C Ampacity (2) Ampacity Duct (2)	105°C Ampacity (2) Direct Burial	105°C Ampacity (2) Ampacity Duct (2)
FULL NEUTRAL												
161-23-7072	1/0 (19x)	1.26	1.36	16 x 14	1.60	1285	1463	205	165	225	180	
161-23-7075	2/0 (19x)	1.31	1.41	13 x 12	1.74	1520	1770	240	190	260	205	
161-23-7078	3/0 (19x)	1.36	1.46	16 x 12	1.79	1666	1916	270	215	295	230	
161-23-7081	4/0 (19x)	1.42	1.52	13 x 10	1.89	1909	2159	310	240	335	265	
161-23-7084	250 (37x)	1.47	1.57	16 x 10	1.95	2102	2352	340	265	370	290	
161-23-7090	350 (37x)	1.58	1.71	20 x 10	2.09	2498	2846	410	320	445	350	
1/3 NEUTRAL												
160-23-7072	1/0 (19x)	1.26	1.36	6 x 14	1.60	1169	1347	195	160	210	175	
160-23-7075	2/0 (19x)	1.31	1.41	8 x 14	1.71	1323	1573	220	185	240	200	
160-23-7078	3/0 (19x)	1.36	1.46	9 x 14	1.76	1434	1684	250	210	270	230	
160-23-7081	4/0 (19x)	1.42	1.52	11 x 14	1.82	1564	1814	285	235	310	260	
160-23-7084	250 (37x)	1.47	1.57	13 x 14	1.87	1689	1939	305	255	330	280	
160-23-7090	350 (37x)	1.58	1.71	18 x 14	2.01	2019	2367	370	315	405	345	
160-23-7093	500 (37x)	1.70	1.84	16 x 12	2.18	2446	2846	450	380	485	415	
160-23-7096	750 (61x)	1.90	2.03	15 x 10	2.41	3126	3632	545	470	595	515	
160-23-7099	1000 (61x)	2.05	2.18	18 x **(A)	2.56	3696	4202	620	530	675	585	

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