# 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 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 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.
- 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 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.

# Okoguard URO-J

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**Red Identification Stripes**

Aluminum Conductor/105°C Rating

100% Insulation Levels



**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.

# Okoguard URO-J

## 25kV Underground Primary Distribution Cable-Jacketed

**Red Identification Stripes**

Aluminum Conductor/105°C Rating

133% Insulation Levels



**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** | | | | | | | | | | | | | |
| 161-23-5066 | 1(19X) | 1.01 | 40 | 1.09 | 13X14 | 1.32 | 876 | 1047 | 195 | 145 | 210 | 155 |
| 161-23-5072 | 1/0(19X) | 1.05 | 40 | 1.15 | 16X14 | 1.39 | 994 | 1138 | 220 | 160 | 235 | 175 |
| 161-23-5075 | 2/0(19X) | 1.09 | 40 | 1.19 | 14X12 | 1.46 | 1157 | 1353 | 250 | 185 | 270 | 205 |
| 161-23-5078 | 3/0(19X) | 1.14 | 40 | 1.24 | 16X12 | 1.51 | 1269 | 2503 | 285 | 210 | 310 | 230 |
| 161-23-5081 | 4/0(19X) | 1.20 | 40 | 1.30 | 14X10 | 1.61 | 1514 | 1819 | 320 | 240 | 350 | 260 |
| 161-23-5084 | 250(37X) | 1.26 | 40 | 1.36 | 16X10 | 1.74 | 1733 | 2032 | 350 | 270 | 380 | 295 |
| 161-23-5090 | 350(37X) | 1.37 | 40 | 1.47 | 18X.1074 | 1.86 | 2068 | 2349 | 425 | 310 | 460 | 340 |
| **1/3 NEUTRAL** | | | | | | | | | | | | | |
| 160-23-5066 | 1(19X) | 1.01 | 40 | 1.09 | 6X14 | 1.32 | 793 | 966 | 175 | 140 | 185 | 150 |
| 160-23-5072 | 1/0(19X) | 1.05 | 40 | 1.15 | 6X14 | 1.39 | 877 | 1022 | 195 | 155 | 215 | 170 |
| 160-23-5075 | 2/0(19X) | 1.09 | 40 | 1.19 | 7X14 | 1.43 | 952 | 1099 | 225 | 180 | 240 | 195 |
| 160-23-5078 | 3/0(19X) | 1.14 | 40 | 1.24 | 9X14 | 1.48 | 1049 | 1261 | 255 | 200 | 275 | 220 |
| 160-23-5081 | 4/0(19X) | 1.20 | 40 | 1.30 | 11X14 | 1.54 | 1162 | 1378 | 285 | 235 | 310 | 255 |
| 160-23-5084 | 250(37X) | 1.26 | 40 | 1.36 | 13X14 | 1.60 | 1281 | 1490 | 305 | 250 | 330 | 275 |
| 160-23-5090 | 350(37X) | 1.37 | 40 | 1.47 | 18X14 | 1.77 | 1588 | 1881 | 375 | 310 | 405 | 335 |
| 160-23-5093 | 500(37X) | 1.50 | 40 | 1.60 | 16X12 | 1.93 | 1968 | 2275 | 450 | 370 | 490 | 405 |
| 160-23-5096 | 750(61X) | 1.68 | 55 | 1.82 | 16X.0966 | 2.20 | 2647 | 3122 | 545 | 460 | 595 | 505 |
| 160-23-5099 | 1000(61X) | 1.84 | 55 | 1.98 | 18X.1052 | 2.36 | 3189 | 3771 | 620 | 520 | 675 | 570 |

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**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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