Okoguard®-Okolon TS-CPE® Medium Voltage Power Cable

5/8kV Shielded Power Cable
One Okopact (Compact Stranded) Copper/90°C Rating
5kV-133% or 8kV-100% Insulation Level
For Class 1E Nuclear Plant Use

A Conductor-Stranded Copper
B Strand Screen - Extruded Semiconducting EPR
C Insulation-Okoguard
D Insulation Screen - Extruded Semiconducting EPR
E Shielding-Coated Copper Tape
F Cable Tapes
G Jacket-Okolon TS-CPE

Insulation

Okoguard is Okonite's registered trade name for its exclusive ethylene-propylene base, thermosetting compound, whose optimum balance of electrical and physical properties is unequaled in other solid dielectrics.
The clean red color of Okoguard is the result of an evolutionary development in ethylene-propylene rubber compounding to gain greater dependability of the electrical characteristics.
The triple tandem extrusion of the screens with the insulation provides optimum electrical characteristics.

Jacket

The Okolon TS-CPE jacket on this cable is a vulcanized chlorinated polyethylene based compound which is mechanically rugged, flame, radiation, and oil resistant.

Applications

Okoguard Shielded Okolon TS-CPE power cables are recommended for use as feeder circuits in utility generating plants, in distribution applications and for primary circuits in all industrial and commercial installations.
These cables may be installed in wet or dry locations, indoors or outdoors (exposed to sunlight), in any raceway or underground duct, directly buried, or messenger supported.

Specifications

Conductor: Annealed uncoated compact copper Class B stranded per ASTM B-496.
Strand Screen: Extruded semiconducting EPR strand screen. Meets or exceeds the electrical and physical requirements of ICEA S-97-682, AEIC CS8.
Insulation: Meets or exceeds electrical and physical requirements of ICEA S-97-682, AEIC CS8.
Insulation Screen: Extruded semi-conducting EPR insulation screen applied directly over the insulation. Meets or exceeds electrical and physical requirements of ICEA S-97-682 and CS8.
Shield: Coated 5 mil copper tape helically applied with 25% minimum overlap.
Jacket: Meets or exceeds electrical and physical requirements of ICEA S-93-639 for thermoset chlorinated polyethylene jackets.

Product Features

- Qualified as Class 1E cable.
- Okoguard cables meet or exceed all recognized industry standards (AEIC, NEMA/ICEA, IEEE).
- 90°C continuous operating temperature.
- 130°C emergency rating.
- 250°C short circuit rating.
- Cables meet the IEEE 383/IEEE 1202 flame test requirement.
- Quality Assurance traceability
- Excellent corona resistance.
- Radiation resistant.
- Screens are clean stripping.
- Exceptional resistance to "treeing".
- Moisture resistant.
- Resistant to most oils, acids, and alkalies.

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Okoguard Insulation: 115 mils (2.92mm), 5kV-133% or 8kV-100% Insulation Level

Catalog Number	Conductor size (AWG or kcmil)	Conductor Size-mm²	Approx. Dia. over Insulation (in.)	Approx. Dia. over Screen (in.)	Jacket Thickness - mils	Jacket Thickness - mm	Approx. O.D. - Inches	Approx. O.D. - mm	Approx. Net Weight lbs./1000'	Approx. Ship Weight lbs./1000'	Ampacities (1) Conduit in Air	Ampacities (2) Underground Duct	Conduit Size Inches (3)*
114-23-2627	2/0	67.4	0.65	0.71	80	2.03	0.96	24.4	807	962	210	234	3
114-23-2629	3/0	85.0	0.69	0.75	80	2.03	1.01	25.7	935	1002	239	266	3
114-23-2631	4/0	107.0	0.75	0.81	80	2.03	1.06	26.9	1098	1165	272	302	3
114-23-2633	250	127.0	0.80	0.86	80	2.03	1.11	28.2	1248	1328	300	331	3
114-23-2637	350	177.0	0.89	0.95	80	2.03	1.20	30.5	1606	1695	362	398	3½
114-23-2643	500	253.0	1.01	1.07	80	2.03	1.32	33.5	2129	2229	451	479	4
114-23-2649	750	380.0	1.19	1.25	80	2.03	1.50	38.1	2999	3176	552	580	5
114-23-2651	1000	507.0	1.34	1.40	80	2.03	1.66	42.2	3861	4038	662	683	5

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

Ampacities are from IEEE Std 835-1994 "IEEE Standard Power Cable Ampacities Tables". Values should be determined for the intended installation conditions.

(1) Per table "5 to 15 kV Shielded Single Conductors Extruded Dielectric Power Cable in Conduit in air 90°C conductor 40°C ambient air" No Sun No Wind.

(2) Per table "5 to 15kV Shielded Single Conductor Extruded Dielectric Power Cable in Underground Duct Bank - Triplexed - Single Circuit 25°C Earth Ambient" 90 rho 100% LF.

NOTE: For ampacities for cables installed in tray, see ICEA P-54-440 "Ampacities of Cables Installed in Cable Trays'

(3) Recommended size of rigid or nonmetallic conduit for three conductors based on 40% maximum fill.

*The jam ratio, conduit I.D. to cable O.D. should be checked to avoid possible jamming.

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