Okoguard®-Okolene® Type MV-90

25kV LCS Shielded Power Cable

One Aluminum Conductor/90°C Rating
100% Insulation Level
Sunlight Resistant

A Conductor-Stranded Aluminum
B Strand Screen-Extruded Semiconducting EPR
C Insulation-Okoguard EPR
D Insulation Screen-Extruded Semiconducting EPR
E Shield-8 Mil LCS Copper Tape
F Jacket-Okolene

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.

Shield

An 8 mil copper longitudinal corrugated shield (LCS) is applied over the extruded semiconducting insulation screen.The LCS resistance is also extremely stable during load cycling.

Jacket

The Okolene jacket on this cable is mechanically rugged, chemical, oil and moisture resistant.

Applications

Okoguard shielded Okolene Type MV-90 power cables are recommended for use as feeder circuits, in electric utility distribution circuits.
Type MV cables may be installed in wet or dry locations, indoors or outdoors (exposed to sunlight), in any raceway or underground duct, directly buried if installed in a system with a grounding conductor in close proximity that conforms with NEC Section 311.36 and 250.4(A)(5), or messenger supported in industrial establishments and electric utilities.

Specifications

Conductor: Aluminum per ASTM B-609, Class B stranded per B-231.
Strand Screen: Extruded semiconducting EPR strand screen. Meets or exceeds electrical and physical requirements of ICEA S-93-639/NEMA WC74 & S-97-682, CSA C68.10, AEIC CS8 and UL 1072.
Insulation: Meets or exceeds electrical and physical requirements of ICEA S-93-639/NEMA WC74 & S-97-682, CSA C68.10, AEIC CS8 and UL 1072.
Insulation Screen: Extruded semiconducting EPR insulation screen. Meets or exceeds electrical and physical requirements of ICEA S-93-639/NEMA WC74 & S-97-682, CSA C68.10, AEIC CS8 and UL 1072.
Shield: 8 mil longitudinal corrugated, copper shield with a 0.25" overlap.
Jacket: Meets or exceeds electrical and physical requirements of ICEA S-93-639/NEMA WC74 & S-97-682, CSA C68.10 and UL 1072 for polyethylene jackets.
UL Listed as Type MV-90, sunlight resistant in accordance with UL 1072.
Okoguard-Okolene cables are also available with 5, 15, 35 and 69kV ratings and with Okolon TS-CPE jackets.

Product Features

- Triple tandem extruded, all EPR system.
- Okoguard cables meet or exceed all recognized industry standards (UL, AEIC, NEMA/ICEA, IEEE).
- 90°C continuous operating temperature.
- 130°C emergency rating.
- 250°C short circuit rating.
- Excellent corona resistance.
- Screens are clean stripping.
- Exceptional resistance to "treeing."
- Low shield resistance.
- Moisture resistant.
- Resistant to most oils, acids and alkalies.
- Sunlight resistant.
- Improved Temperature Rating.

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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) Direct Burial	Ampacities (3) Underground Duct	Conduit Size Inches (4)*
Okoguard Insulation: 260 mils (6.60mm), 100% Insulation Level														
135-23-6452	1	33.6	0.89	0.94	80	2.03	1.19	30.2	700	805	130	185	135	3
135-23-6456	1/0	53.5	0.92	0.98	80	2.03	1.23	31.2	750	855	150	215	155	3½
135-23-6462	4/0	107.0	1.07	1.13	80	2.03	1.38	35.1	970	1114	230	315	230	4
135-23-6468	500	253.0	1.38	1.45	80	2.03	1.69	42.9	1490	1745	385	510	370	5
135-23-6472	750	380.0	1.57	1.62	110	2.79	1.93	49.0	1970	2255	485	635	455	6
135-23-6476	1000	507.0	1.72	1.77	110	2.79	2.08	52.9	2340	2625	565	740	525	6

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

Ampacities
(1) Ampacities are in accordance with Table 311.60(C)(74) of the NEC for three single Type MV-105 conductors, or single conductors twisted together (triplexed) and installed in an isolated conduit in air at an ambient temperature of 40°C and a conductor temperature of 90°C.
(2) Ampacities are in accordance with Table 311.60(C)(82) of the NEC for an insulated single conductor directly buried with a conductor temperature rating of 90°C, ambient earth temperature of 20°C, 100% Load Factor, thermal resistance (RHO) of 90.
(3) Ampacities are in accordance with Table 311.60(C)(78) of the NEC for three single conductors or triplexed cable in one underground raceway, three feet deep with a conductor temperature 90°C, 100% Load Factor, an ambient earth temperature of 20°C, and thermal resistance (RHO) of 90.
Refer to NEC, IEEE/ICEA-S-135 Power Cable Ampacities, or the Okonite Engineering Data Bulletin for installation in duct banks, multiple point grounded shields, other ambient temperatures, circuit configurations or installation requirements.
(4) 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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