Okoguard®-Okoclear®-TS Type MV-105

15 kV Shielded Power Cable

One Okopact® (Compact Stranded)
Copper Conductor/105°C Rating Wet or Dry
For Cable Tray Use - Sunlight Resistant - Oil Res I & II

A Uncoated, Okopact (Compact Stranded) Copper Conductor
B Strand Screen-Extruded Semiconducting EPR
C Insulation-Okoguard EPR
D Insulation Screen-Extruded Semiconducting EPR
E Shield-Copper Tape
F Jacket-Okoclear TS (XLPO-LSZH)

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 for long, problem free service.

Jacket

The Okoclear-TS jacket on this cable is a low smoke, non-halogenated, vulcanized crosslinked polyolefin (XLPO) based compound. It provides excellent resistance to mechanical abuse, flame, weathering, most oils, acids and alkalis.

Applications

Okoguard shielded Okoclear-TS Type MV-105 power cables are recommended for use as feeder circuits, in electric utility generating stations, for distribution circuits, and for feeders or branch circuits in industrial and commercial installations, where a cable with low smoke/zero halogen characteristics is needed.

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 315.36 and 250.4(A)(5), or messenger supported in industrial establishments and electric utilities.

May be installed in cable trays where permitted by NEC Section 392 as permitted by NEC Section 315.32(3).

Specifications

Conductor: Uncoated copper compact stranded per ASTM B-496.

Strand Screen: Extruded semiconducting EPR strand screen. Meets or exceeds electrical and physical requirements of ICEA S-93-639/NEMA WC74 & S-97-682, AEIC CS8, CSA C68.10 and UL 1072.

Insulation: Meets or exceeds electrical and physical requirements of ICEA S-93-639/NEMA WC74 & S-97-682, AEIC CS8, CSA C68.10 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, AEIC CS8, CSA C68.10 and UL 1072.

Shield: 5 mil bare copper tape helically applied, with 25% minimum overlap.

Jacket: Meets or exceeds electrical and physical requirements of ICEA S-93-639 and CSA C68.10 for Type II crosslinked polyolefin jackets.

UL listed as Type MV-105, sunlight resistant and for use in cable tray in accordance with UL 1072.

CSA C68.10 listed as FT4-ST1, HALOGEN-FREE, LTDD (-25°C), and TC-ER.

Product Features

- Low smoke/zero halogen jacket.
- Okoguard cables meet or exceed all recognized industry standards (UL, NEMA/ICEA and IEEE).
- Triple tandem extruded, all EPR system.
- 105°C continuous operating temperature.
- 140°C emergency rating.
- 250°C short circuit rating
- Excellent corona resistance.
- Exceptional resistance to "treeing".
- Screens are clean stripping.
- Exceptional resistance to moisture.
- Resistant to most oils, acids, and alkalis.
- UL listed: MV-105, Sunlight Resistant, Cable Tray Use, and Oil Res I & II.
- Passes the UL & IEEE 383-1974 and FT4/IEEE 1202 Vertical Tray Flame Test.

Okoguard-Okoclear-TS Type MV-105

15kV Shielded Power Cable

One Okopact (Compact Stranded)
Copper Conductor/ 105°C Rating
100% and 133% Insulation Level

For Cable Tray Use - Sunlight Resistant - Oil Res I & II

Catalog Number (1)	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 (2) Conduit in Air	Ampacities (3) Underground	Ampacities (4) Cable Tray	Conduit (5) Size Inches*
Okoguard Insulation: 175 mils (4.45mm), 100% Insulation Level														
115-23-2043	1/0	53.5	0.73	0.79	80	2.03	1.00	25.3	825	895	215	215	290	3
115-23-2045	2/0	67.4	0.77	0.83	80	2.03	1.04	26.4	935	1005	255	245	335	3
115-23-2046	3/0	85.0	0.82	0.88	80	2.03	1.09	27.6	1075	1105	290	275	385	3
115-23-2047	4/0	107.0	0.87	0.93	80	2.03	1.13	28.7	1240	1350	330	315	445	3½
115-23-2048	250	127.0	0.93	0.99	80	2.03	1.19	30.3	1405	1490	365	345	495	3½
115-23-2050	350	177.0	1.01	1.07	80	2.03	1.28	32.4	1765	1895	440	415	610	4
115-23-2052	500	253.0	1.13	1.19	80	2.03	1.39	35.4	2295	2480	535	500	765	4
115-23-2054	750	380.0	1.31	1.37	80	2.03	1.57	39.9	3185	3420	655	610	990	5
115-23-2056	1000	507.0	1.46	1.52	80	2.03	1.73	43.9	4070	4305	755	690	1185	5
Okoguard Insulation: 220 mils (5.59mm), 133% Insulation Level														
115-23-2116	1/0	53.5	0.82	0.88	80	2.03	1.08	27.5	910	990	215	215	290	3½
115-23-2118	2/0	67.4	0.86	0.92	80	2.03	1.12	28.5	1025	1105	255	245	335	3½
115-23-2120	3/0	85.0	0.91	0.97	80	2.03	1.18	29.9	1180	1330	290	275	385	3½
115-23-2132	4/0	107.0	0.96	1.02	80	2.03	1.22	31.1	1340	1490	330	315	445	3½
115-23-2134	250	127.0	1.01	1.07	80	2.03	1.28	32.4	1500	1635	365	345	495	4
115-23-2137	350	177.0	1.10	1.16	80	2.03	1.37	34.7	1880	2065	440	415	610	4
115-23-2139	500	253.0	1.22	1.28	80	2.03	1.49	37.7	2425	2610	535	500	765	5
115-23-2143	750	380.0	1.40	1.46	80	2.03	1.66	42.2	3330	3580	655	610	990	5
115-23-2151	1000	507.0	1.54	1.60	110	2.79	1.87	47.5	4330	4395	755	690	1185	6
115-23-2164	1250	633.5	1.75	1.81	110	4.33	2.08	52.7	5325	5715	845	770	1350	6
115-23-2166	1500	760.2	1.88	1.94	110	4.33	2.20	56.0	6210	6770	925	845	1500	8

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

▲ **Authorized Stock Item**. Available from our Customer Service Centers.

Aluminum Conductors

(1) Aluminum conductors are available on special order.

Ampacities

(2) Ampacities are in accordance with Table 315.60(C)(7) 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 105°C.

(3) Ampacities are in accordance with Table 315.60(C)(11) of the NEC for three single conductors or triplexed cable in one underground raceway, three feet deep with a conductor temperature of 105°C, 100% Load Factor, an ambient earth temperature of 20°C and thermal resistance (RHO) of 90.

(4) Ampacities for cable in cable tray are in accordance with the NEC, Section 392.80(B)(2)(2), Table 315.60(C)(3) (copper), for single conductor cables installed in a single layer, in uncovered tray, with a maintained spacing of 1 cable OD or more at 105°C conductor temperature and 40°C ambient temperature and single point grounding.

Refer to the 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.

(5) 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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