



Okoguard® Okoclear-TS Type MV-105



15kV Okoguard Shielded Power Cable

3 Okopact® (Compact Stranded) Copper Conductors/105°C Rating
100% & 133% Insulation Level

For Cable Tray Use-Sunlight Resistant-For Direct Burial



- A Uncoated Okopact (Compact Stranded) Copper Conductors
- B Extruded Semiconducting EPR Strand Screen
- C Okoguard Insulation (EPR)
- D Extruded Semiconducting EPR Insulation Screen
- E Phase Identification Tape
- F Okopact Copper Grounding Conductor
- G Uncoated Copper Shield
- H Fillers and Binder Tape
- J Jacket-Black Okoclear-TS (XLPO)

Insulation

Okoguard is Okonite's registered trade name for its exclusive ethylene-propylene rubber (EPR) base, 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.

Assembly

The Type MV-105 conductors are assembled with fillers and a binder tape overall. One bare stranded copper ground conductor is placed in one of the outer interstices.

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 three conductor Okoclear-TS Type MV-105 power cables are recommended for distribution circuits, and for feeders or branch circuits in industrial and utility power distribution systems. 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, cable tray, or messenger supported in industrial establishments and electric utilities.

Specifications

Conductors: 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, CSA C68.10 and UL 1072.

Insulation: Okoguard meets or exceeds the electrical and physical requirements of ICEA S-93-639/NEMA WC74, CSA C68.10 and UL 1072. The insulated conductors are tested in accordance with AEIC CS8.

Insulation Screen: Extruded semiconducting EPR insulation screen per ICEA S-93-639/NEMA WC74, AEIC CS8, CSA C68.10 and UL 1072.

Shield: 5 mil uncoated copper tape helically applied with 12.5% nominal overlap.

Phase Identification: Color coded (black, red, blue) polyester ribbon laid longitudinally under the copper tape shield.

Grounding Conductor: Uncoated copper compact stranded per ASTM B-496 and sized in accordance with UL 1072.

Assembly: Cabled with fillers and ground wire in the interstices, binder tape overall.

Jacket: Meets or exceeds electrical and physical requirements of ICEA S-93-639/NEMA WC74, CSA C68.10 and UL 1072 for Type II crosslinked polyolefin jackets UL Listed as Type MV-105, sunlight resistant for use in cable tray, and for direct burial in accordance with UL 1072.

Product Features

- Triple tandem extruded, all EPR system.
- Complete prepackaged, color coded, factory tested wiring system.
- Passes the UL 1072, IEEE 383 and IEEE 1202/FT4 Vertical Tray Flame Tests.
- Complies with NEC Sections 310-7 and 710-4(b) for direct burial.
- Minimum installation temperature of -40°C.
- Excellent corona resistance.
- Screens are clean stripping.
- Exceptional resistance to "treeing".
- Improved Temperature Rating.
- UL listed: MV-105, Sunlight Resistant, Limited Smoke (ST-1), Cable Tray Use, and Oil Res I & II.

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Product Data Section 2: Sheet 56

Catalog Number (1)	Conductor Size AWG/kcmil	Conductor Size - mm ²	Approx. Diameter over Insulation (in.)	Grounding Conductor Size - AWG/kcmil	Grounding Conductor Size -mm ²	Approx. Core O.D.	Approx. Core O.D. - Inches	Jacket Thickness - mm	Jacket Thickness - mils	Approx. O.D. - mm	Approx. O.D. - Inches	Approx. Net Weight lbs./1000'	Approx. Ship Weight lbs./1000'	Ampacities in Air (2)	Ampacities Cable Tray (3)	Ampacities Direct Burial (4)
Okoguard Insulation: 175 mils (4.45mm), 100% Insulation Level																
115-23-2766	2 33.6	0.67	6 13.3	1.59 40.4	110 2.79	1.85 47.0	2487 2724	185 165 200								
115-23-2768	1/0 53.5	0.74	4 21.2	1.74 44.2	110 2.79	2.00 50.8	3153 3421	240 215 255								
115-23-2770	2/0 67.4	0.78	4 21.2	1.82 42.2	110 2.79	2.09 53.1	3626 4073	275 245 290								
115-23-2772	4/0 107.0	0.88	3 26.7	2.04 51.8	110 2.79	2.29 58.2	4758 5214	360 320 375								
115-23-2774	250 127.0	0.93	3 26.7	2.15 54.6	110 2.79	2.42 61.5	5455 5929	400 350 410								
115-23-2776	350 177.0	1.03	2 33.6	2.36 59.9	110 2.79	2.60 66.0	6620 7178	490 430 495								
115-23-2778	500 253.0	1.14	1 42.4	2.61 66.3	140 3.56	2.91 73.9	8721 9615	600 525 590								
115-23-2780	750 380.0	1.32	1/0 53.5	2.99 75.9	140 3.56	3.29 83.6	12022 13276	745 635 720								

Okoguard Insulation: 220 mils (5.59mm), 133% Insulation Level																
▲ 115-23-2802	2 33.6	0.76	6 13.3	1.79 45.5	110 2.79	2.03 51.6	2970 3238	185 165 200								
115-23-2804	1/0 53.5	0.83	4 21.2	1.93 49.0	110 2.79	2.18 55.4	3566 4013	240 215 255								
▲ 115-23-2806	2/0 67.4	0.87	4 21.2	2.02 51.3	110 2.79	2.26 57.4	4029 4476	275 245 290								
▲ 115-23-2808	4/0 107.0	0.97	3 26.7	2.24 56.9	110 2.79	2.48 63.0	5279 5753	360 320 375								
115-23-2810	250 127.0	1.03	3 26.7	2.36 60.0	110 2.79	2.59 65.8	5801 6359	400 350 410								
▲ 115-23-2812	350 177.0	1.12	2 33.6	2.56 65.0	140 3.56	2.85 72.4	7396 8122	490 430 495								
▲ 115-23-2814	500 253.0	1.24	1 42.4	2.81 71.4	140 3.56	3.11 79.0	9362 10365	600 525 590								
115-23-2816	750 380.0	1.41	1/0 53.5	3.19 81.0	140 3.56	3.49 88.6	12742 14266	745 635 720								

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 available on special orders.

Ampacities

(2) Ampacities are in accordance with Table 310.60(C)(71) of the NEC for an insulated three conductor cable, isolated in air, with a conductor operating temperature of 105°C and an ambient air temperature of 40°C.

(3) Ampacities are in accordance with Table 310.60(C)(75) of the NEC for a three conductor Type MV-105 cable installed in uncovered cable tray in accordance with Section 392.80(B) of the NEC with a conductor operating temperature of 105°C and ambient air temperature of 40°C. Where the cable tray is covered for more than six feet with solid unventilated covers, the ampacities shall not be more than 95% of the values shown above.

(4) Ampacities are in accordance with Table 310.60(C)(83) of the NEC for an insulated three conductor cable directly buried in the earth with a conductor operating temperature of 105°C, ambient earth temperature of 20°C, 100% load factor, thermal resistance (RHO) of 90.

Refer to the NEC, IEEE/ICEA S-135 Power Cable Ampacities or the Okonite Engineering Data Bulletin for installation in duct banks, other ambient temperatures, circuit configurations or installation requirements.