



Okoguard® Okoseal® 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 Okoseal

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 Okoseal (PVC) jacket supplied with this cable is mechanically rugged and has excellent resistance to oil and most chemicals.

Applications

Okoguard shielded three conductor Okoseal 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 polyvinyl chloride jackets. UL Listed as Type MV-105, sunlight resistant for use in cable tray, and for direct burial in accordance with UL 1072.

Cables listed to CSA C68.10

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.
- Sizes 4/0 AWG and larger are CSA listed as FT4, SR, and LTGG (-40°C).
- Sizes smaller than 4/0 AWG are CSA listed as FT4, SR, and LTDD (-25°C).

Okoguard Okoseal Type MV-105



Product Data Section 2: Sheet 20

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3 Okopact (Compact Stranded) Copper Conductors/105°C Rating
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For Cable Tray Use-Sunlight Resistant-For Direct Burial

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																
115-23-3766	2 33.6	0.67	6 13.3	1.59 40.4	110 2.79	1.83 46.5	1985 2130	185 165 200								
115-23-3768	1/0 53.5	0.74	4 21.2	1.74 44.2	110 2.79	1.97 50.0	2560 2770	240 215 255								
115-23-3770	2/0 67.4	0.78	4 21.2	1.82 42.2	110 2.79	2.06 52.3	2890 3150	275 245 290								
115-23-3772	4/0 107.0	0.88	3 26.7	2.04 51.8	110 2.79	2.28 57.9	3905 4190	360 320 375								
115-23-3774	250 127.0	0.93	3 26.7	2.15 54.6	110 2.79	2.39 60.7	4390 4930	400 350 410								
115-23-3776	350 177.0	1.03	2 33.6	2.36 59.9	110 2.79	2.59 65.8	5608 6210	490 430 495								
115-23-3778	500 253.0	1.14	1 42.4	2.61 66.3	140 3.56	2.91 73.9	7480 8255	600 525 590								
115-23-3780	750 380.0	1.32	1/0 53.5	2.99 75.9	140 3.56	3.29 83.6	10320 11330	745 635 720								

Okoguard Insulation: 220 mils (5.59mm), 133% Insulation Level																
▲ 115-23-3802	2 33.6	0.76	6 13.3	1.79 45.5	110 2.79	2.02 51.3	2280 2575	185 165 200								
115-23-3804	1/0 53.5	0.83	4 21.2	1.93 49.0	110 2.79	2.17 55.1	2857 3145	240 215 255								
▲ 115-23-3806	2/0 67.4	0.87	4 21.2	2.02 51.3	110 2.79	2.26 57.4	3260 3570	275 245 290								
▲ 115-23-3808	4/0 107.0	0.97	3 26.7	2.24 56.9	110 2.79	2.48 63.0	4285 4640	360 320 375								
115-23-3810	250 127.0	1.03	3 26.7	2.36 60.0	110 2.79	2.59 65.8	4795 5295	400 350 410								
▲ 115-23-3812	350 177.0	1.12	2 33.6	2.56 65.0	140 3.56	2.85 72.4	6168 7000	490 430 495								
▲ 115-23-3814	500 253.0	1.24	1 42.4	2.81 71.4	140 3.56	3.10 78.7	7895 8945	600 525 590								
115-23-3816	750 380.0	1.41	1/0 53.5	3.19 81.0	140 3.56	3.49 88.7	10805 11800	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.