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 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.

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 Section 336.6 and is suitable for direct buried when installed in accordance with NEC Sections 250.4(A)(5).
- 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, LTGG (-40°C), and TC-ER.
- Sizes smaller than 4/0 AWG are CSA listed as FT4, SR, LTDD (-25°C), and TC-ER.

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

Catalog Number (1)	Conductor size AWG or kcmil		Conductor Size - mm^2	Approx. Dia. over Insulation (in.)		Grounding Conductor Sizes - Awg/kcmil		Grounding Conductor Sizes - mm^2	Approx. Core O.D. - Inches		Approx. Core O.D. - mm		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 in Cable Tray (2)	Ampacities Direct Burial (3)
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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 315.60(C)(5) 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 315.60(C)(17) 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.

THE OKONITE COMPANY
Ramsey, New Jersey 07446