Okoguard® Okoseal® Type MV-105

5/8kV Okoguard Shielded Power Cable

3 Okopact® (Compact Stranded) Copper Conductors/105°C Rating
5kV-133% or 8kV-100% 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 Compact 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 Type MV-105 power cables are recommended for distribution circuits, and for feeders or branch circuits in industrial & 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 and UL 1072.
Insulation: Okoguard meets or exceeds the electrical and physical requirements of ICEA S-93-639/NEMA WC74 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 and UL 1072.
Shield: 5 mil uncoated copper tape with 12.5% nominal overlap.
Phase Identification: Color coded (black, red, blue) polyester ribbon laid longitudinally under the copper 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 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 C68.3 are also available.

Product Features

- Triple tandem extruded, all EPR system.
- Complete prepackaged, color coded, factory tested wiring system.
- Passes the vertical tray flame test requirements of IEEE 383 and UL 1072.
- Complies with NEC Sections 310-7 and 710-4(b) for direct burial.
- Excellent corona resistance.
- Screens are clean stripping.
- Exceptional resistance to “treeing”.
- Improved Temperature Rating.

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Okoguard Insulation: 115 mils (2.92mm), 5kV-133% or 8kV-100% Insulation Level

Catalog Number (1)	Conductor Size (AWG/kcmil)	Conductor Size - mm²	Approx. Diameter over Insulation (in.)	Grounding Conductor Size (AWG/kcmil)	Grounding Conductor Size - mm²	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 Air (2)	Ampacities Cable Tray (3)	Ampacities Direct Burial (4)
▲ 114-23-3630	6	13.3	0.44	6	13.3	1.10	27.9	80	2.03	1.29	32.8	1015	1115	88	77	115
114-23-3633	4	21.2	0.48	6	13.3	1.19	30.2	80	2.03	1.38	35.1	1235	1390	115	100	150
▲ 114-23-3640	2	33.6	0.54	6	13.3	1.32	33.5	80	2.03	1.51	38.3	1560	1715	155	135	190
114-23-3642	1/0	53.5	0.61	4	21.2	1.46	37.0	80	2.03	1.65	41.9	2090	2250	205	185	245
▲ 114-23-3648	2/0	67.4	0.65	4	21.2	1.55	39.4	110	2.79	1.80	45.7	2513	2695	240	210	280
▲ 114-23-3736	4/0	107.0	0.75	3	26.7	1.77	45.0	110	2.79	2.02	51.3	3455	3780	320	285	360
114-23-3770	250	127.0	0.80	3	26.7	1.88	47.8	110	2.79	1.13	54.1	3971	4245	355	315	395
▲ 114-23-3772	350	177.0	0.89	2	33.6	2.08	52.8	110	2.79	2.33	59.2	5116	5665	440	390	475
▲ 114-23-3782	500	253.0	1.01	1	42.4	2.33	59.2	110	2.79	2.59	65.8	6799	7430	545	475	570

Visit Okonite's web site, www. okonite.com for the most up to date dimensions.

▲ **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 and 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
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