Loxarmor® Type MV-105 or MC

15kV Okoguard® Shielded Power Cable

3 Okopact® (Compact Stranded) Copper Conductors/105°C Rating
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 Phase Identification Strips
E Extruded Semiconducting EPR Insulation Screen
F Okopact (Compact) Copper Grounding Conductor
G 5 mil Bare Copper Shield
H Fillers and Binder Tape
J Loxarmor
K Jacket Red-Okoseal

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 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 grounding conductor is placed in one of the outer interstices. The interlocked Loxarmor provides excellent mechanical strength. For direct burial, embedment in concrete or for areas subjected to corrosive atmospheres, the Loxarmor is protected with a red Okoseal® (PVC) jacket.

Applications

Loxarmor power cables are recommended as an economical alternate to a wire in conduit system. They are designed specifically for use as feeders in industrial and utility power distribution systems. Loxarmor power cables may be installed in both exposed and concealed work, wet and dry locations, direct burial in the earth or embedded in concrete. They may be installed on metal racks, troughs, in cable trays or secured to supports not greater than 6 feet apart.
Loxarmor power cables are also approved for Classes I and II, Division 2, and Class III, Divisions 1 and 2, hazardous locations - NEC Articles 501, 502 and 503.

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 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 tape.
Grounding Conductor: Uncoated copper in accordance with UL 1072.
Assembly: Cabled with fillers and ground wire in the interstices, binder tape overall.
Loxarmor: Galvanized steel or aluminum interlocked tape armor per UL 1072, ICEA S-93-639/NEMA WC74, and UL Listing E-60545.
Jacket: Sunlight resistant red PVC jacket in accordance with UL 1072.
UL Listed as Type MV-105 or MC, sunlight resistant, for use in cable tray, and for direct burial in accordance with UL 1072.
CSA listed to C68.10.

Product Features

- Triple tandem extruded, all EPR system.
- Complete prepackaged, color coded, factory tested wiring system.
- Okoguard Loxarmor cables meet or exceed all recognized industry standards (UL, AEIC, NEMA/ICEA, IEEE).
- Passes the vertical tray flame test requirements of IEEE 383 and 1202, UL 1072, ICEA T-29-520 (210,000 BTU/hr.) and the 210,000 BTU/hr. corner configuration test.
- Complies with NEC Section 336.36 and is suitable for direct buried when installed in accordance with NEC Sections 250.4(A)(5).
- Excellent corona resistance.
- Screens are clean stripping.
- Exceptional resistance to "treeing".
- Resistant to most oils, acids, and alkalies.
- Improved Temperature Rating.
- Minimum installation temperature of -40°C.
- CSA listed as FT4, SR, HL and LTGG (-40°C).

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Okoguard Insulation: 220 mils (5.59mm) with Red Okoseal Jacket

Catalog Number (1)	Conductor size (AWG or kcmil)	Conductor Size -mm²	Approx. Dia. over Insulation (in.)	Grounding Conductor Sizes - (AWG/kcmil)	Grounding Conductor Sizes - mm²	Approx. Core O.D. - Inches	Approx. Core O.D. - mm	Loxarmor O.D. - In.	Jacket Thickness - mils	Jacket Thickness - mm	Approx. O.D. - In.	Approx. O.D. - mm	Approx. Net Weight lbs./1000'	Approx. Ship Weight lbs./1000'	Ampacities in Cable Tray (2)	Ampacities (3) Direct Burial
Galvanized Steel Loxarmor																
115-23-5417	2	33.6	0.75	6	13.3	1.79	45.5	2.04	60	1.52	2.17	55.1	2839	3131	185	200
115-23-5419	1	42.4	0.79	4	21.2	1.87	47.5	2.12	60	1.52	2.26	57.4	3155	3490	210	225
115-23-5421	1/0	53.5	0.82	4	21.2	1.94	49.3	2.19	60	1.52	2.32	58.9	3434	3769	240	255
115-23-5423	2/0	67.4	0.86	4	21.2	2.03	51.6	2.28	60	1.52	2.41	61.2	3816	4151	275	290
115-23-5427	4/0	107.0	0.96	3	26.7	2.24	56.9	2.49	75	1.91	2.66	67.6	4977	5547	360	375
115-23-5429	250	127.0	1.01	2	33.6	2.36	59.9	2.61	75	1.91	2.77	70.4	5553	6263	400	410
115-23-5431	350	177.0	1.10	2	33.6	2.56	65.0	2.81	75	1.91	2.97	75.4	6777	7539	490	495
115-23-5433	500	253.0	1.22	1	42.4	2.81	71.4	3.06	85	2.16	3.24	82.3	8663	9596	600	590
115-23-5435	750	380.0	1.40	1/0	53.5	3.19	81.0	3.44	85	2.16	3.63	92.2	11639	13448	745	720
Aluminum Loxarmor																
115-23-5850	2	33.6	0.75	6	13.3	1.79	45.5	2.05	60	1.52	2.18	55.4	2435	2727	185	200
115-23-5852	1	42.4	0.79	4	21.2	1.87	47.5	2.13	60	1.52	2.27	57.7	2733	3068	210	225
115-23-5854	1/0	53.5	0.82	4	21.2	1.94	49.3	2.20	60	1.52	2.33	59.2	2998	3333	240	255
115-23-5856	2/0	67.4	0.86	4	21.2	2.03	51.6	2.29	60	1.52	2.42	61.5	3360	3695	275	290
115-23-5860	4/0	107.0	0.96	3	26.7	2.24	56.9	2.50	75	1.91	2.67	67.8	4474	5044	360	375
115-23-5862	250	127.0	1.01	2	33.6	2.36	59.9	2.62	75	1.91	2.78	70.6	4983	5693	400	410
115-23-5864	350	177.0	1.10	2	33.6	2.56	65.0	2.82	75	1.91	2.98	75.7	6204	6966	490	495
115-23-5866	500	253.0	1.22	1	42.4	2.81	71.4	3.07	78	2.16	3.25	82.6	8035	8968	600	590
115-23-5868	750	380.0	1.40	1/0	53.5	3.19	81.0	3.51	85	2.16	3.70	94.0	11145	12954	745	720

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

Aluminum Conductors
(1) Aluminum conductors are available on special order.

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 and a thermal resistance (RHO) of 90.

Refer to the NEC, IEEE 835 Power Cable Ampacity Tables, or the Okonite Engineering Data Bulletin for installation in duct banks, other ambient temperatures. circuit configurations or installation requirements.

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