



## Loxarmor<sup>®</sup> Type MV-105 or MC

### 15kV Okoguard<sup>®</sup> Shielded Power Cable



3 Okopact<sup>®</sup> (Compact Stranded) Copper Conductors/105°C Rating  
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 Phase Identification Strips
- E Extruded Semiconducting EPR Insulation Screen
- F Okopact (Compact) Copper Grounding Conductor
- G 5 mil Bare Copper Shield
- H Fillers and BinderTape
- 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<sup>®</sup> (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.

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.
- 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 Sections 310.7 and 300.50 for direct burial.
- Excellent corona resistance.
- Screens are clean stripping.
- Exceptional resistance to "treeing".
- Resistant to most oils, acids, and alkalis.
- Improved Temperature Rating.
- Minimum installation temperature of -40°C.

# Loxarmor Type MV-105 or MC



## Product Data Section 2: Sheet 28

### 15kV Okoguard Shielded Power Cable

3 Okopact (Compact Stranded) Copper Conductors/105°C Rating

100% Insulation Level

For Cable Tray Use-Sunlight Resistant-For Direct Burial

### Okoguard Insulation-175 mils (4.45mm) with Red Okoseal Jacket

Catalog Number (1)	Conductor Size AWG/kmil	Conductor Size - mm <sup>2</sup>	Approx. Diameter over Insulation (in.)	Grounding Conductor Size - AWG/kmil	Grounding Conductor Size - mm <sup>2</sup>	Approx. Core O.D. - in.	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 Air (2)	Ampacities (3)	Ampacities (4)	
<b>Galvanized Steel Loxarmor</b>																		
115-23-5337	2	33.6	0.67	6	13.3	1.65	41.9	1.86	60	1.52	2.09	53.0	2484	2921	185	165	200	
115-23-5339	1	42.4	0.70	4	21.2	1.74	44.2	1.92	60	1.52	2.16	54.9	2829	3242	210	185	225	
115-23-5341	1/0	53.5	0.74	4	21.2	1.82	46.2	2.06	60	1.52	2.20	55.9	3238	3817	240	215	255	
115-23-5343	2/0	67.4	0.78	4	21.2	1.92	48.8	2.09	60	1.52	2.22	56.4	3521	4070	275	245	290	
115-23-5347	4/0	107.0	0.88	3	26.7	2.14	54.4	2.30	75	1.91	2.44	62.2	4578	5241	360	320	375	
115-23-5349	250	127.0	0.93	3	26.7	2.26	57.4	2.40	75	1.91	2.56	65.0	5137	6112	400	350	410	
115-23-5351	350	177.0	1.03	2	33.6	2.53	64.3	2.61	75	1.91	2.77	70.4	6424	7476	490	430	495	
115-23-5353	500	253.0	1.14	1	42.4	2.80	71.1	2.91	85	2.16	3.07	78.0	8310	10049	600	525	590	
115-23-5355	750	380.0	1.32	1/0	53.5	3.22	81.8	3.30	85	2.16	3.48	88.7	11263	13696	745	635	720	
<b>Aluminum Loxarmor</b>																		
115-23-5751	2	33.6	0.67	6	13.3	1.65	41.9	1.87	60	1.52	2.00	50.8	2121	2348	185	165	200	
115-23-5752	1	42.4	0.70	4	21.2	1.74	44.2	1.93	60	1.52	2.07	52.6	2452	2708	210	185	225	
115-23-5754	1/0	53.5	0.74	4	21.2	1.82	46.2	2.02	60	1.52	2.15	54.6	2752	3099	240	215	255	
115-23-5756	2/0	67.4	0.78	4	21.2	1.92	48.8	2.10	60	1.52	2.23	56.6	3107	3452	275	245	290	
115-23-5760	4/0	107.0	0.88	3	26.7	2.14	54.4	2.31	75	1.91	2.48	63.2	4196	4636	360	320	375	
115-23-5762	250	127.0	0.93	3	26.7	2.26	57.4	2.41	75	1.91	2.57	63.5	4655	5349	400	350	410	
115-23-5764	350	177.0	1.03	2	33.6	2.53	64.3	2.62	75	1.91	2.78	70.6	5895	6629	490	430	495	
115-23-5766	500	253.0	1.14	1	42.4	2.80	71.1	2.92	85	2.16	3.08	78.2	7714	9106	600	525	590	
115-23-5768	750	380.0	1.32	1/0	53.5	3.22	81.8	3.37	85	2.16	3.55	90.2	10792	12994	745	635	720	

Visit Okonite's web site, [www.okonite.com](http://www.okonite.com) for the most up to date dimensions.

#### Aluminum Conductors

(1) Aluminum conductors are available on special order.

#### Ampacities

(2) Ampacities are in accordance with Table 310.71 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 310.75 of the NEC for a three conductor Type MV-105 or MC cable installed in uncovered cable tray in accordance with Section 392.13 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 310.83 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 a thermal resistance (RHO) of 90.

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