



## Loxarmor® Type MV-90 or MC



### 2.4kV Okoguard® Nonshielded Power Cable

3 Okopact® (Compact Stranded) Copper Conductors/90°C Rating  
100% and 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
- D Okopact (Compact) Copper Grounding Conductor
- E Fillers and Binder Tape
- F Loxarmor
- G Jacket -Yellow Okoseal

#### Insulation

Okoguard is Okonite's registered trade name for its exclusive ethylene-propylene (EPR) based, thermosetting compound, whose optimum balance of electrical and physical properties is unequalled in other solid dielectric. 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-90 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 armor provides good mechanical strength. For direct burial, embedment in concrete or for areas subjected to corrosive atmospheres, the Loxarmor is protected with a yellow 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 on feeders and branch circuits in industrial power distribution systems. Loxarmor power cables may be installed in both exposed and concealed work, wet and dry location, 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. 2.4kV Non-Shielded cables discharge normally in service when spacing between phases is non-uniform or when phases are in close proximity to a grounded surface.

#### Specifications

**Conductors:** Uncoated copper compact stranded per ASTM B-496.

**Strand Screen:** Extruded semiconducting EPR conductor stress relief meets or exceeds electrical and physical requirements of ICEA S-96-659/NEMA WC71 and UL 1072.

**Insulation:** Okoguard meets or exceeds electrical and physical requirements of ICEA S-96-659/NEMA WC71 and UL 1072.

**Phase Identification:** Print color code (black, red and blue).

**Grounding Conductor:** Uncoated copper in accordance with UL 1072.

**Assembly:** Cabled with fillers and ground wire, fillers in the interstices, binder tape overall.

**Loxarmor:** Galvanized steel or aluminum interlocked tape armor per UL 1072, ICEA S-96-659 NEMA WC71, and UL Listing E-60545.

**Jacket:** Sunlight resistant, yellow PVC jacket in accordance with UL 1072.

UL Listed as Type MV-90 or MC, sunlight resistant, for use in cable tray, and for direct burial in accordance with UL 1072.

#### Product Features

- 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).
- Complies with NEC Articles 300.50 and 310.10(F) for direct burial.
- Excellent corona resistance.
- Exceptional resistance to "treeing".
- Stress cones not required.
- Resistant to most oils, acids, and alkalis.
- Minimum installation temperature of -40°C.

# Loxarmor Type MV-90 or MC



## Product Data Section 2: Sheet 27

### 2.4kV Okoguard Nonshielded Power Cable

3 Okopact (Compact Stranded) Copper Conductors/90°C Rating

100% and 133% Insulation Level

For Cable Tray Use - Sunlight Resistant - For Direct Burial

Okoguard Insulation: 90 mils (2.29mm)

With Yellow 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.		Loxarmor O.D. - mm		Jacket Thickness - In.		Jacket Thickness - mils		Approx. O.D. - mm		Approx. O.D. - mm		Approx. Net Weight lbs./1000'		Approx. Ship Weight lbs./1000'		Ampacities In Air (2)		Ampacities Cable Tray (3)		Ampacities (4) Direct Burial						
<b>Galvanized Steel Loxarmor</b>																																				
114-24-5341	8	8.4	0.36	8	8.4	0.84	21.3	1.06	50	1.27	1.17	29.7	815	895	59	52	85																			
114-24-5342	6	13.3	0.39	6	13.3	0.92	23.3	1.14	50	1.27	1.25	31.7	985	1075	79	69	105																			
114-24-5343	4	21.2	0.44	6	13.3	1.01	25.7	1.23	50	1.27	1.34	34.1	1209	1299	105	91	135																			
114-24-5344	2	33.6	0.49	6	13.3	1.15	29.3	1.37	50	1.27	1.48	37.6	1567	1710	140	125	180																			
114-24-5345	1	42.4	0.52	4	21.2	1.21	30.7	1.43	50	1.27	1.54	39.0	1820	1963	160	140	200																			
114-24-5346	1/0	53.5	0.56	4	21.2	1.28	32.6	1.50	60	1.52	1.61	41.0	2073	2216	185	165	230																			
114-24-5347	2/0	67.4	0.60	4	21.2	1.38	35.0	1.60	60	1.52	1.73	43.9	2435	2599	215	190	260																			
114-24-5348	4/0	107.0	0.70	3	26.7	1.59	40.5	1.84	60	1.52	1.98	50.2	3523	3779	285	255	335																			
114-24-5349	250	127.0	0.75	3	26.7	1.70	43.3	1.95	60	1.52	2.08	52.9	4038	4294	320	280	365																			
114-24-5350	350	177.0	0.85	2	33.6	1.90	48.2	2.15	60	1.52	2.28	57.9	5234	5793	395	350	440																			
114-24-5351	500	253.0	0.96	1	42.4	2.14	54.4	2.39	75	1.91	2.56	64.9	6965	7524	485	425	530																			
114-24-5352	750	380.0	1.14	1/0	53.5	2.53	64.4	2.78	75	1.91	2.95	74.8	9818	10580	615	525	650																			
114-24-5353	1000	507.0	1.29	1/0	53.5	3.12	79.3	3.12	85	2.16	3.31	84.1	12567	13645	705	590	730																			
<b>Aluminum Loxarmor</b>																																				
114-24-5800	8	8.4	0.36	8	8.4	0.84	21.3	1.07	50	1.27	1.18	30.0	667	747	59	52	85																			
114-24-5802	6	13.3	0.39	6	13.3	0.92	23.3	1.15	50	1.27	1.26	32.0	825	915	79	69	105																			
114-24-5804	4	21.2	0.44	6	13.3	1.01	25.7	1.24	50	1.27	1.35	34.4	1033	1123	105	91	135																			
114-24-5806	2	33.6	0.49	6	13.3	1.15	29.3	1.38	50	1.27	1.49	37.9	1367	1510	140	125	180																			
114-24-5808	1	42.4	0.52	4	21.2	1.21	30.7	1.44	50	1.27	1.55	39.3	1611	1754	160	140	200																			
114-24-5810	1/0	53.5	0.56	4	21.2	1.28	32.6	1.51	50	1.27	1.62	41.2	1851	1994	185	165	230																			
114-24-5812	2/0	67.4	0.60	4	21.2	1.38	35.0	1.61	60	1.52	1.74	44.2	2197	2361	215	190	260																			
114-24-5816	4/0	107.0	0.70	3	26.7	1.59	40.5	1.85	60	1.52	1.99	50.4	3163	3419	285	255	335																			
114-24-5818	250	127.0	0.75	3	26.7	1.70	43.2	1.96	60	1.52	2.09	53.1	3655	3911	320	280	365																			
114-24-5820	350	177.0	0.85	2	33.6	1.90	48.2	2.16	60	1.52	2.29	58.1	4807	5366	395	350	440																			
114-24-5822	500	253.0	0.96	1	42.4	2.14	54.4	2.40	75	1.91	2.57	65.2	6484	7043	485	425	530																			
114-24-5824	750	380.0	1.14	1/0	53.5	2.53	64.4	2.85	85	2.16	3.02	76.6	9427	10189	615	525	650																			
114-24-5826	1000	507.0	1.29	1/0	53.5	3.12	79.3	3.19	85	2.16	3.38	85.8	12124	13202	705	590	730																			

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

#### Aluminum Conductors

(1) Aluminum Okopact 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 90°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-90 or MC cable installed in uncovered cable tray in accordance with Section 392.13 of the NEC with a conductor operating temperature of 90°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 90°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 Ampacity Tables, or the Okonite Engineering Data Bulletin for installation in duct banks, other ambient temperatures, circuit configurations or installation requirements.