



C-L-X[®] Type MV-105 or MC-HL

15kV Okoguard[®] Shielded Power Cable-Aluminum Sheath

3 Okopact[®] (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 Extruded Semiconducting EPR Insulation Screen
- E Phase Identification Tape
- F Copper Grounding Conductor
- G Uncoated Copper Shield
- H Fillers and Binder Tape
- J Impervious, continuous, Corrugated Aluminum C-L-X Sheath
- K Jacket-Red 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, one bare stranded grounding conductor and a binder tape into a round core. A continuously corrugated welded aluminum sheath (C-L-X) encases the cable core. The C-L-X sheath is protected with a low temperature red Okoseal[®] jacket. The impervious, continuous, corrugated aluminum C-L-X sheath provides complete protection against moisture, liquids and gases in addition to its excellent mechanical strength. In addition, the aluminum CLX sheath exceeds the equipment grounding requirements of NEC Section 250.118 and 250.122, and can be used as the equipment grounding conductor in non-HL areas. The Okoseal jacket allows the cable to be direct buried in the ground, embedded in concrete or areas subjected to corrosive atmospheres.

Applications

C-L-X power cables are recommended as an economical alternate to a wire in conduit system. They are designed specifically for use as feeders or branch circuits in industrial and utility power distribution systems. C-L-X 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.

C-L-X Type MC-HL cables are also approved for Classes I, II, and III, Divisions 1 and 2, and Class I, Zones 1 and 2 hazardous locations - NEC Articles 501, 502, 503 and 505.

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 tape.

Grounding Conductor: Uncoated copper Class B in accordance with UL 1072.

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

Sheath: Close fitting, impervious, continuous, corrugated aluminum C-L-X per UL 1072, and UL listing E-60545; C-L-X is recognized as a grounding conductor by NEC.

Jacket: A low temperature, sunlight resistant, red PVC jacket in accordance with UL 1072. Other color jackets are available.

UL Listed as type MV-105 or MC-HL, sunlight resistant for use in cable tray, and for direct burial in accordance with UL 1072 and 2225. UL certified to IEEE 1580. CSA Listed to C68.10.

Product Features

- Triple tandem extruded, all EPR system.
- Complete prepackaged, color coded, factory tested wiring system.
- Okoguard C-L-X 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 Section 336.36 and is suitable for direct buried when installed in accordance with NEC Sections 250.4(A)(5).
- Complies with NEC Articles 501, 502, 503 and 505 for hazardous locations.
- Continuous sheath provides grounding safety.
- Excellent corona resistance.
- Screens are clean stripping.
- Exceptional resistance to "treeing".
- Minimum installation temperature of -40°C.
- Improved Temperature Rating.
- ABS listed as CWCMC Type MC-HL.
- CSA listed as FT4, SR, HL and LTGG (-40°C).

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Product Data Section 2: Sheet 23



Okoguard Insulation: 175 mils (4.45mm)

Catalog Number (1)	Conductor size (AWG or kcmil)		Conductor Size -mm ²	Approx. Diameter over Insulation (in.)		Grounding Conductor Size (AWG/kcmil)		Grounding Conductor Size - mm ²		Approx. Core O.D. - Inches	Approx. Core O.D. - mm	C-L-X O.D. - Inches	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)
With Red Okoseal Jacket																				
571-23-3204	2	33.6	0.67	6	13.3	1.59	40.4	1.92	60	1.52	2.05	52.1	2042	2472	185	200				
571-23-3208	1	42.4	0.70	4	21.2	1.66	42.2	2.01	60	1.52	2.14	54.4	2382	2864	210	225				
571-23-3212	1/0	53.5	0.74	4	21.2	1.74	44.2	2.11	60	1.52	2.23	56.7	2672	3295	240	255				
571-23-3216	2/0	67.4	0.78	4	21.2	1.83	46.5	2.19	60	1.52	2.32	58.9	3014	3665	275	290				
571-23-3224	4/0	107.0	0.88	3	26.7	2.04	51.8	2.41	75	1.91	2.56	65.0	4080	4785	360	375				
571-23-3228	250	127.0	0.93	2	26.7	2.16	55.0	2.54	75	1.91	2.70	68.6	4577	5350	400	410				
571-23-3236	350	177.0	1.03	2	33.6	2.36	60.0	2.76	75	1.91	2.91	73.9	5855	7257	490	495				
571-23-3244	500	253.0	1.14	1	42.4	2.61	66.3	3.03	85	2.16	3.21	81.5	7654	9597	600	590				
571-23-3248	750	380.0	1.32	1/0	53.5	2.99	76.0	3.63	85	2.16	3.81	96.8	10951	12643	745	720				

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

Copper or bronze C-L-X and non-jacketed C-L-X are available on special order.

Jackets

Optional jacket types available - consult local sales office.

Aluminum Conductors

(1) Aluminum conductors are available on special order.

Ampacities

(2) Ampacities are in accordance with Table 311.60(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 311.60(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, 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.

C-L-X® The Okonite Company