



C-L-X[®] Type MV-105 or MC-HL 25kV Okoguard[®] Shielded Power Cable-Aluminum Sheath

3 Okopact[®] (Compact Stranded) Copper Conductors/105°C Rating
100% & 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 Tape
- E Extruded Semiconducting EPR Insulation Screen
- F Copper Grounding Conductor
- G Uncoated Copper Shield
- H Fillers and Binder Tape
- J Impervious, Continuous, Corrugated Aluminum C-L-X Sheath
- K Jacket-Low Temperature Orange 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 orange 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 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 conductor stress relief 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 in-

ulated conductors are tested in accordance with AEIC CS8.

Insulation Screen: Extruded semiconducting EPR stress relief layer meets or exceeds electrical and physical requirements of ICEA S-93-639/NEMA WC74 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.

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

Jacket: A low temperature, sunlight resistant, orange PVC jacket in accordance with UL 1072, and CSA 22.2. 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. Conforms to applicable requirements of IEC 60502, 60332-3 and IEEE 1580. CSA Listed 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 25

Catalog Number (1)	Conductor size (AWG or kcmil)	Conductor Size -mm ²	Approx. Dia. over Insulation (in.)	Grounding Conductor Sizes (AWG/kcmil)	Grounding Conductor Sizes - 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)
Okoguard Insulation: 260 mils (6.60mm) 100% Level - With Orange Okoseal Jacket																
571-23-3758	1	42.4	0.86	4	21.2	2.04	51.8	2.40	75	1.91	2.56	65.0	3055	3440	210	225
571-23-3762	1/0	53.5	0.90	4	21.2	2.12	53.8	2.49	75	1.91	2.65	67.3	3367	3752	240	255
571-23-3766	2/0	67.4	0.94	4	21.2	2.20	55.9	2.58	75	1.91	2.74	69.6	3746	4217	275	290
571-23-3774	4/0	107.0	1.04	3	26.7	2.43	61.7	2.85	75	1.91	3.01	76.5	4934	5696	360	375
571-23-3778	250	127.0	1.09	2	33.6	2.53	64.3	2.93	75	1.91	3.10	78.7	5431	6070	400	410
571-23-3786	350	177.0	1.18	2	33.6	2.74	69.6	3.24	85	2.16	3.42	86.9	6880	7902	490	495
571-23-3794	500	253.0	1.30	1	42.4	3.07	78.0	3.63	85	2.16	3.81	96.8	8955	10764	600	590
Okoguard Insulation: 320 mils (8.13mm) 133% Level - With Orange Okoseal Jacket																
571-23-3408	1	42.4	1.00	4	21.2	2.32	58.9	2.71	75	1.91	2.87	72.9	3661	4170	210	225
571-23-3412	1/0	53.5	1.03	4	21.2	2.40	61.0	2.80	75	1.91	2.96	75.2	4029	4500	240	255
571-23-3416	2/0	67.4	1.07	4	21.2	2.49	63.2	2.89	75	1.91	3.05	77.5	4407	4878	275	290
571-23-3424	4/0	107.0	1.17	3	26.7	2.80	71.1	3.28	85	2.16	3.46	87.9	5799	6503	360	375
571-23-3426	250	127.0	1.23	2	33.6	2.84	72.1	3.32	85	2.16	3.50	88.9	6303	7325	400	410
571-23-3436	350	177.0	1.32	2	33.6	3.07	78.0	3.63	85	2.16	3.81	96.8	7566	9375	490	495
571-23-3444	500	253.0	1.44	1	42.4	3.43	87.1	4.02	85	2.16	4.20	106.7	9830	11639	600	590

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

Jackets

Optional jacket types available - consult local sales office.
Copper or bronze C-L-X and non-jacketed C-L-X are available on special order.

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