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PRIORITY WIRE & CABLE, INC.

A brand of the Prysmian Group

# Lifeline® MC: One-Hour and Two-Hour Fire Resistive Multiconductor Cables – UL 2196

Fire Resistive Cable for Survivability in a Fire

## *Applications*

Lifeline® MC fire resistive cables were designed to meet and have successfully passed one-hour and two-hour fire rating certification tests per UL 2196, *Standard for Tests for Fire Resistive Cables.*

### *Lifeline® MC Cables can be used in the following applications to provide survivability during a fire:*

- Tall Buildings
- Emergency Feeder Cables
- Stairwell Pressurization
- Elevators / OEO
- Fire Pumps
- Ventilating Fans
- Exit Lighting
- Emergency lighting for roadway and transit tunnels when cables include optional LSZH jacket over armor

Lifeline® MC Cables are preferred over Mineral Insulated (MI) cables, concrete encasement or the construction of fire rated assemblies based on the facts that Lifeline® MC Cables are less costly and easier to install for many applications.

Fire resistive cables are required per NFPA 70/NEC, Articles 517, 695, 700, 708, 728 and 760 as well as NFPA 72 and NFPA 101.

CLASSIFIED UL

UL LISTED

RoHS COMPLIANT

lifeline

## *Specifications and Ratings*

- Listed to UL 1569, Metal Clad Cables, as the following type:
- Type MC 600 Volt, Rated 90°C
- For Cable Tray Use IEEE 1202/ FT4 Rated, ST1 Limited Smoke
- Classified to UL 2196, Standard for Tests for Fire Resistive Cables, with one-hour and two-hour Fire Resistive Rating (FRR)
- Electrical Circuit Integrity System (FHIT) No. 50 of the UL Fire Resistance Directory with 2-hour FRR at 480 volts utilization covers cable constructions in table below and optional taped splice for conductor sizes 2AWG and larger.
- Electrical Circuit Integrity System (FHIT) No. 50A of the UL Fire Resistance Directory with 1-hour FRR at 480 volts utilization, covers multi-conductor cable constructions 4 conductor 2AWG with segmented ground conductors and 3 conductor 14 AWG, and optional ceramic stand-off splice for conductor sizes 14AWG to 350MCM.
- Optional taped splice in Electrical Circuit Integrity System (FHIT) No. 50 of the UL Fire Resistance Directory with 2-hour FRR at 480 volts utilization.
- Optional ceramic stand-off splice for conductor sizes up to 350MCM in Electrical Circuit Integrity System (FHIT) No. 50A of the UL Fire Resistance Directory with 1-hour FRR at 480 volts utilization.
- NFPA 70, NFPA 101 compliant
- Corrugated Copper Armor meets Equipment Grounding Conductor requirements of NEC Table 250.122

## *Design Parameters*

**CONDUCTORS:** Bare stranded copper, 14 AWG through 600 kcmil

**INSULATION:** Ceramifiable Silicone Zero Halogen (LSZH)

**INNER BINDER JACKET:** Ceramifiable Silicone Zero Halogen (LSZH)

**ARMOR:** Continuously Welded and Corrugated Copper

**IDENTIFICATION**:
DRAKA MA P/N [##########] [X]/C [Y] LIFELINE (UL) E66840T MC-ST1 600V 90C FOR CT USE IEEE 1202/FT4 ST1 (UL) R19359 FRR 2HR FHIT#50[1] or FRR 1HR FHIT#50A[2] UL 2196 480V UTILIZATION (MONTH/YEAR) (SEQUENTIAL FOOTAGE)Notes: [#] is cable part number

[X] is the number of conductors

[Y] is cable size in AWG or kcmil

[1] FRR 2HR FHIT#50 includes taped splice for cables with conductor sizes 2AWG to 600MCM

[2] FRR 1HR FHIT#50A applies ceramic stand-off splice for cables with 14AWG to 350MCM conductors

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# Lifeline® MC: One-Hour and Two-Hour Fire Resistive Multiconductor Cables – UL 2196

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### Lifeline® MC Power Cable

| LIFELINE® Part Number | Conductor Size AWG /MCM | Number of Cond | Nominal Core Diameter (in) | Nominal Armor Diameter (in) | Ampacity* 75°C Amps | Ampacity* 90°C Amps |
|---|---|---|---|---|---|---|
| LMC05014 | 14 | 5 | 0.66 | 0.97 | 20** | 25** |
| LMC02012 | 12 | 2 | 0.56 | 0.85 | 25** | 30** |
| LMC03012 | 12 | 3 | 0.59 | 0.91 | 25** | 30** |
| LMC04012 | 12 | 4 | 0.64 | 0.97 | 25** | 30** |
| LMC05012 | 12 | 5 | 0.70 | 0.97 | 25** | 30** |
| LMC02010 | 10 | 2 | 0.61 | 0.85 | 35** | 40** |
| LMC03010 | 10 | 3 | 0.64 | 0.97 | 35** | 40** |
| LMC04010 | 10 | 4 | 0.70 | 0.97 | 35** | 40** |
| LMC05010 | 10 | 5 | 0.77 | 1.08 | 35** | 40** |
| LMC02008 | 8 | 2 | 0.70 | 0.97 | 50 | 55 |
| LMC03008 | 8 | 3 | 0.75 | 1.08 | 50 | 55 |
| LMC04008 | 8 | 4 | 0.82 | 1.18 | 50 | 55 |
| LMC05008 | 8 | 5 | 0.90 | 1.26 | 50 | 55 |
| LMC02006 | 6 | 2 | 0.78 | 1.08 | 65 | 75 |
| LMC03006 | 6 | 3 | 0.83 | 1.18 | 65 | 75 |
| LMC04006 | 6 | 4 | 0.91 | 1.26 | 65 | 75 |
| LMC05006 | 6 | 5 | 1.00 | 1.35 | 65 | 75 |
| LMC03004 | 4 | 3 | 0.95 | 1.35 | 85 | 95 |
| LMC04004 | 4 | 4 | 1.04 | 1.35 | 85 | 95 |
| LMC05004 | 4 | 5 | 1.15 | 1.58 | 85 | 95 |
| LMC03003 | 3 | 3 | 1.00 | 1.35 | 100 | 115 |
| LMC04003 | 3 | 4 | 1.11 | 1.40 | 100 | 115 |
| LMC03002 | 2 | 3 | 1.07 | 1.40 | 115 | 130 |
| LMC04002 | 2 | 4 | 1.18 | 1.58 | 115 | 130 |
| LMC03001 | 1 | 3 | 1.24 | 1.73 | 130 | 145 |
| LMC04001 | 1 | 4 | 1.37 | 1.73 | 130 | 145 |
| LMC031/0 | 1/0 | 3 | 1.33 | 1.73 | 150 | 170 |
| LMC041/0 | 1/0 | 4 | 1.47 | 1.85 | 150 | 170 |
| LMC032/0 | 2/0 | 3 | 1.41 | 1.85 | 175 | 195 |
| LMC042/0 | 2/0 | 4 | 1.56 | 1.97 | 175 | 195 |
| LMC033/0 | 3/0 | 3 | 1.52 | 1.97 | 200 | 225 |
| LMC043/0 | 3/0 | 4 | 1.69 | 2.15 | 200 | 225 |
| LMC034/0 | 4/0 | 3 | 1.64 | 2.15 | 230 | 260 |
| LMC044/0 | 4/0 | 4 | 1.82 | 2.28 | 230 | 260 |
| LMC03250 | 250 | 3 | 1.81 | 2.28 | 255 | 290 |
| LMC04250 | 250 | 4 | 2.00 | 2.52 | 255 | 290 |
| LMC03350 | 350 | 3 | 2.04 | 2.52 | 310 | 350 |
| LMC04350 | 350 | 4 | 2.26 | 2.72 | 310 | 350 |
| LMC03400 | 400 | 3 | 2.13 | 2.72 | 335 | 380 |
| LMC04400 | 400 | 4 | 2.37 | 2.83 | 335 | 380 |
| LMC03500 | 500 | 3 | 2.31 | 2.83 | 380 | 430 |
| LMC04500 | 500 | 4 | 2.57 | 3.11 | 380 | 430 |
| LMC03600 | 600 | 3 | 2.54 | 3.11 | 420 | 475 |
| LMC04600 | 600 | 4 | 2.83 | 3.41 | 420 | 475 |

*Ampacities are based on Table 310.15(B)(16) of the National Electrical Code (NEC) (NFPA 70-2017) for 3 current carrying conductors at 30°C ambient.

**Small overcurrent protection limitations per NEC Article 240.4(D): (3) 14AWG – 15amps, (5) 12AWG – 20amps, (7) 10AWG – 30amps

The above dimensions are approximate and subject to normal manufacturing tolerances. Information subject to change

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