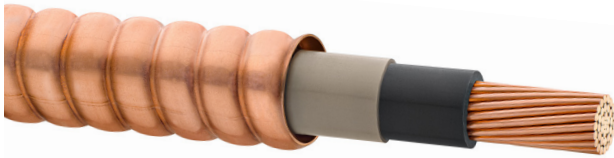# Lifeline® MC: One-Hour and Two-Hour Fire Resistive Single Conductor Cables – UL 2196

Fire Resistive Cable for Survivability in a Fire

APPLICATIONS

Lifeline® MC fire-resistive single conductor 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 Single Conductor Cables can be used in the following applications to provide survivability during a fire:

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

Lifeline® MC Single Conductor 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.

SPECIFICATIONS & 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.
- 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, 1/0 AWG through 750 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]/ [Z] LIFELINE (UL) E66840T MC-ST1 600V 90C FOR CT USE IEEE 1202/FT4 ST1 (UL) R19359 FRR 2HR FHIT#50[1] 480V UTILIZATION or FRR 1HR FHIT#50A[2] 480V UTILIZATION UL 2196 (MONTH/YEAR) (SEQUENTIAL FOOTAGE)

Notes: [#] is cable part number
[X] is cable size in AWG or kcmil
[Y] is cable size in mm²
[1] FRR 2HR FHIT#50 applies to optional taped splice for cables with conductor sizes 1/0AWG to 750MCM
[2] FRR 1HR FHIT#50A applies to optional ceramic stand-off splice for cables with 1/0AWG to 350MCM conductors

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LIFELINE® Part Number	Conductor Size AWG /MCM	Nominal Core Diameter (in)	Nominal Armor Diameter (in)	Ampacity* 75°C Amps	Ampacity* 90°C Amps
LMC011/0	1/0	0.65	0.91	230	260
LMC012/0	2/0	0.69	0.97	265	300
LMC013/0	3/0	0.74	1.08	310	350
LMC014/0	4/0	0.80	1.18	360	405
LMC01250	250	0.87	1.26	405	455
LMC01350	350	0.98	1.35	505	570
LMC01400	400	1.03	1.40	545	615
LMC01500	500	1.11	1.58	620	700
LMC01600	600	1.22	1.79	690	780
LMC01750	750	1.32	1.79	785	885

* Ampacities are based on Table 310.15(20) of the National Electric Code (NEC) NFPA 70-2020 for not more than three single insulated conductors; corrected to 30°C ambient based on Table 310.15(B)

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