

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

Fire Resistive Cable for Survivability in a Fire



APPLICATIONS

Lifeline® MC LSZH 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* and are classified in Electrical Circuit Integrity Systems (FHIT) No. 50, No. 50A, and No. 51.

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

- Emergency Feeder Cables
- Ventilating Fans
- Exit Lighting
- Emergency lighting and ventilation for roadway and transit tunnels

Lifeline® MC LSZH Cables are preferred over Mineral Insulated (MI) cables, concrete encasement or the construction of fire rated assemblies based on the facts that Lifeline® MC LSZH Cables are less costly and easier to install for many life safety fire resistive applications in roadway and tunnel environments with a LSZH jacket to protect against corrosion.

Fire resistive cables are required per NFPA 70, Articles 517, 695, 700, 708, 728 and 760 as well as NFPA 72, NFPA 101, NFPA 130 and NFPA 502.



**RoHS
COMPLIANT**

SPECIFICATIONS & RATINGS

- Listed to UL 1569, *Metal Clad Cables*, as the following type:
 - Type MC 600 Volt, Rated 90°C
- For Wet Locations
- For Cable Tray Use IEEE 1202/ FT4 Rated, ST1 Limited Smoke
- Sunlight Resistance
- Direct Burial
- 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. 51 of the UL Fire Resistance Directory with 2-hour FRR at 600 volts utilization covers cable constructions in table below
- 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 72, NFPA 101, NFPA 130, NFPA 502 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

JACKET: Thermoplastic Flame Resistant LSZH Jacket

IDENTIFICATION:

ORIGIN USA PRYSMIAN GROUP MA P/N [#####] [X]AWG [Y]mm²
LIFELINE® (UL) MC 600V 90C WET LOCS FOR CT USE IEEE 1202/FT4 ST1
SUN RES DIR BUR (UL) 2196 FRR 2HR FHIT 51 600V UTILIZATION or FRR
2HR FHIT 50¹ 480V UTILIZATION FRR 1HR or FHIT 50A² 480V UTILIZATION
(MONTH/YEAR) ([mm]/[yr]) (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 includes taped splice for cables with conductor sizes 1/0AWG to 750MCM

² FRR 1HR FHIT#50A applies 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)	Nominal Jacket Diameter (in)	Ampacity* 75°C Amps	Ampacity* 90°C Amps
LMCJ011/0	1/0	0.65	0.91	1.01	206	235
LMCJ012/0	2/0	0.69	0.97	1.07	239	271
LMCJ013/0	3/0	0.74	1.08	1.18	276	315
LMCJ014/0	4/0	0.80	1.18	1.28	324	368
LMCJ01250	250	0.87	1.26	1.36	361	411
LMCJ01350	350	0.98	1.35	1.45	448	510
LMCJ01400	400	1.03	1.40	1.50	485	553
LMCJ01500	500	1.11	1.58	1.70	560	638
LMCJ01600	600	1.22	1.79	1.91	624	711
LMCJ01750	750	1.32	1.79	1.91	720	785

* 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