

# Manufacturer's Instructions for Lifeline® MC and MC LSZH Jacketed: One Hour and Two-Hour Fire-Resistive Cables – UL 2196

Technical Information Sheet #400



This Technical Information Sheet (TIS) covers Lifeline® MC and MC LSZH Jacketed Single and Multi-Conductor: UL Certified and Listed One-Hour and Two-Hour Fire-Resistive Power Cables.

## Applications

Lifeline® MC Cables have been qualified and listed to the demanding requirements of UL 2196, *Tests for Fire-Resistive Cables*, and are UL Listed Type MC.

Lifeline® MC Cables meet various industry code requirements of NFPA 70, NFPA 72 and NFPA 101 (Lifeline® MC LSZH Jacketed also meet NFPA 130 and NFPA 502) for fire resistance according to UL 2196 standard when selected and installed per applicable codes including federal, state, local and municipal rules, laws and regulations as well as Electrical Circuit Integrity Systems 50 and 50A (FHIT.50 and FHIT.50A). Note that Authorities Having Jurisdiction (AHJ) should be consulted for approval prior to cable purchase and installation.

## Requirements

### 1) Codes / Laws / Regulations

Selection and installation compliance is dependent on the applicable issue of any code or addendum that covers the use of Lifeline® MC, Fire-Resistive Cables.

### 2) UL Electrical Circuit Integrity System #50 and #50A (FHIT.50 and FHIT.50A)

The most current listing details and supporting information applicable to Lifeline® MC Cables' fire-resistive rating (FRR) classification can be obtained from UL's UL Product IQ website by searching for keywords: FHIT.50 or FHIT.50A.

Where:

FHIT.50 covers single-conductor and multi-conductor cables with 2-hour FRR at 480 volts utilization and includes optional taped splice for conductor sizes 2AWG and larger. Refer to TIS 403 for splice installation instructions.

FHIT.50A covers single-conductor and multi-conductor cable constructions 4 conductor 2AWG with segmented ground conductors and optional ceramic stand-off splice for use with conductor sizes 14AWG to 350MCM. Refer to TIS 402 for splice installation instruction.

### 3) Manufacturer's Instructions – TIS #400

All Lifeline® MC Cable products are covered by specific datasheets and supporting Technical Information Sheets that provide the user with information to properly select and install Lifeline® MC Cables in a reliable and trouble-free manner. Do not hesitate to contact your Lifeline® MC Cable representative should you have any questions.

## Installation Parameters

### 1) Cable: Lifeline® MC

MCCode compliant cable classified as one-hour or two-hour fire-resistive according to UL 2196 when installed in accordance with FHIT.50, or FHIT.50A, the National Electric Code (NEC), and all applicable federal, state, and municipal regulations.

### 2) Securing and Supporting Spacing

Code compliant fire-resistive installation in both horizontal and vertical orientations requires the cable be secured and supported at intervals not exceeding four feet (48 inches), at each side cable bends, and within one foot (12 inches) of cable connector terminations. Noted exception: support spacing described above is in lieu of support spacing allowed in the NEC and CEC, and is required for compliant two-hour fire-resistive installation..

### 3) Supports and Fasteners

Cables shall be secured to supports using steel two-piece single-bolt pipe clamps such as T&B 703 series. Supports shall be steel components or other fire rated components (described in FHIT.50 and FHIT.50A) proven to meet the required fire resistance ratings. No substitute components are allowed..

### 4) Cable Bending

The minimum bending radius for Lifeline MC cable is defined in two conditions.

1. The minimum pulling radius is 10 times the cable diameter when the cable is under tension and is being pulled around bends during installation (Example: if cable diameter is 1 inch, the minimum bend radius is 10 inches, and minimum diameter of sheaves or rollers used during installation is 20 inches).
2. The minimum training radius is 7 times the cable diameter in accordance with NEC Article 330 when the cable is not under tension and when the cable is in final installation position. During installation and handling, the bend radius should be kept as large as possible using a sheave with the full minimum bending radius of the cable.

### 5) Cable Pulling and Handling

Proper cable pulling and handling techniques are essential to ensure a damage free installation. The Lifeline® MC Installation Manual (TIS #401) describes the recommended best practices.

## Additional Features Available

### 1) Optional Outer Jacket

A corrosion resistant outer jacket is available over copper armor for applications with destructive corrosive conditions.

### 2) Splices

A splice is available. See FHIT.50 and FHIT.50A and contact your Lifeline® MC Cable representative for additional instructions.

# 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* and are classified in Electrical Circuit Integrity Systems (FHIT) No. 50 and No. 50A.

*Lifeline® MC 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 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.



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## 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 72, 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:

ORIGIN USA PRYSMIAN GROUP MA P/N [#####] [X]/C [Y]AWG [Z]mm<sup>2</sup> LIFELINE © (UL) MC-ST1 600V 90C FOR CT USE IEEE 1202/FT4 ST1 (UL) 2196 FRR 2HR FHIT#50<sup>1</sup> or FRR 1HR FHIT 50A<sup>2</sup> 480V UTILIZATION ([mm]/[yr]) (SEQUENTIAL FOOTAGE)

**Notes:** [#] is cable part number

[X] is the number of conductors

[Y] is cable size in AWG or kcmil

[Z] is cable size in mm<sup>2</sup>

<sup>1</sup> FRR 2HR FHIT#50 includes taped splice for cables with conductor sizes 2AWG to 600MCM

<sup>2</sup> FRR 1HR FHIT#50A applies ceramic stand-off splice for cables with 14AWG to 350MCM conductors

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

Fire Resistive Cable for Survivability in a Fire



LIFELINE® Part Number	Conductor Size AWG /MCM	Number of Conductors	Nominal Core Diameter (in)	Nominal Armor Diameter (in)	Ampacity* 75°C Amps	Ampacity* 90°C Amps
LMC03014	14	3	0.55	0.85	20**	25**
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**
LMC07010	10	7	0.86	1.26	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(16) of the National Electrical Code (NEC) (NFPA 70-2023) for 3 current carrying conductors at 30°C ambient.

\*\* Small overcurrent protection limitations per NEC Article 240.4(D): (4) 14AWG – 15amps, (6) 12AWG – 20amps, (30) 10AWG – 30amps

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

# 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* and are classified in Electrical Circuit Integrity Systems (FHIT) No. 50 and No. 50A.

*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.



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## 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 72, 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:

ORIGIN USA PRYSMIAN GROUP MA P/N [#####] [X]AWG [Y] mm<sup>2</sup> LIFELINE® (UL) MC-ST1 600V 90C FOR CT USE IEEE 1202/FT4 ST1 (UL) 2196 FRR 2HR FHIT 50<sup>1</sup> 480V UTILIZATION or FRR 1HR FHIT 50A<sup>2</sup> 480V UTILIZATION ([mm]/[yr]) (SEQUENTIAL FOOTAGE)

**Notes:** [#] is cable part number

[X] is cable size in AWG or kcmil

[Y] is cable size in mm<sup>2</sup>

<sup>1</sup> FRR 2HR FHIT#50 includes taped splice for cables with conductor sizes 1/0AWG to 750MCM

<sup>2</sup> FRR 1HR FHIT#50A applies ceramic stand-off splice for cables with 1/0AWG to 350MCM conductors

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

Fire Resistive Cable for Survivability in a Fire

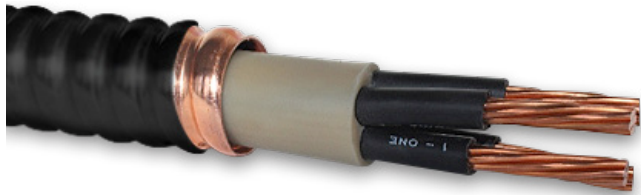


LIFELINE® Part Number	Conductor Size AWG /MCM	Nominal Core Diameter (in)	Nominal Armor Diameter (in)	Ampacity* 75°C Amps	Ampacity* 90°C Amps
LMC011/0	1/0	0.65	0.91	230	260
LMC012/0	2/0	0.69	0.97	265	300
LMC013/0	3/0	0.74	1.08	310	350
LMC014/0	4/0	0.80	1.18	360	405
LMC01250	250	0.87	1.26	405	455
LMC01350	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(170) of the National Electric Code (NEC) NFPA 70-2023 for single insulated conductors in free air at 30°C  
The above dimensions are approximate and subject to normal manufacturing tolerances. Information subject to change

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

Fire Resistive Cable for Survivability in a Fire



## APPLICATIONS

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

*Lifeline® MC 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.



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## 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. 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 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, 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

**JACKET:** Thermoplastic Flame Resistant LSZH Jacket

### IDENTIFICATION:

ORIGIN USA PRYSMIAN GROUP MA P/N [#####] [X]/C [Y]AWG [Z]mm<sup>2</sup> LIFELINE® (UL) MC 600V 90C WET LOCS FOR CT USE IEEE 1202/ FT4 ST1 SUN RES DIR BUR (UL) 2196 FRR 2HR FHIT 50<sup>1</sup> or FRR 1HR FHIT 50A<sup>2</sup> 480V UTILIZATION ([mm]/[yr]) (SEQUENTIAL FOOTAGE)

**Notes:** [#] is cable part number

[X] is the number of conductors

[Y] is cable size in AWG or kcmil

[Z] is cable size in mm<sup>2</sup>

<sup>1</sup> FRR 2HR FHIT#50 includes taped splice for cables with conductor sizes 2AWG to 600MCM

<sup>2</sup> FRR 1HR FHIT#50A applies ceramic stand-off splice for cables with 14AWG to 350MCM conductors

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



Fire Resistive Cable for Survivability in a Fire

LIFELINE® Part Number	Conductor Size AWG /MCM	Number of Conductors	Nominal Core Diameter (in)	Nominal Armor Diameter (in)	Nominal Jacket Diameter (in)	Ampacity* 75°C Amps	Ampacity* 90°C Amps
LMCJ03014	14	3	0.55	0.85	0.95	20**	25**
LMCJ05014	14	5	0.66	0.97	1.07	20**	25**
LMCJ02012	12	2	0.56	0.85	0.95	25**	30**
LMCJ03012	12	3	0.59	0.91	1.01	25**	30**
LMCJ04012	12	4	0.64	0.97	1.07	25**	30**
LMCJ05012	12	5	0.70	0.97	1.07	25**	30**
LMCJ02010	10	2	0.61	0.85	0.95	35**	40**
LMCJ03010	10	3	0.64	0.97	1.07	35**	40**
LMCJ04010	10	4	0.70	0.97	1.07	35**	40**
LMCJ05010	10	5	0.77	1.08	1.18	35**	40**
LMCJ07010	10	7	0.86	1.26	1.36	35**	40**
LMCJ02008	8	2	0.70	0.97	1.07	50	55
LMCJ03008	8	3	0.75	1.08	1.18	50	55
LMCJ04008	8	4	0.82	1.18	1.28	50	55
LMCJ05008	8	5	0.90	1.26	1.36	50	55
LMCJ02006	6	2	0.78	1.08	1.18	65	75
LMCJ03006	6	3	0.83	1.18	1.28	65	75
LMCJ04006	6	4	0.91	1.26	1.36	65	75
LMCJ05006	6	5	1.00	1.35	1.45	65	75
LMCJ03004	4	3	0.95	1.35	1.45	85	95
LMCJ04004	4	4	1.04	1.35	1.45	85	95
LMCJ05004	4	5	1.15	1.58	1.70	85	95
LMCJ03003	3	3	1.00	1.35	1.45	100	115
LMCJ04003	3	4	1.11	1.40	1.50	100	115
LMCJ03002	2	3	1.07	1.40	1.50	115	130
LMCJ04002	2	4	1.18	1.58	1.70	115	130
LMCJ03001	1	3	1.24	1.73	1.85	130	145
LMCJ04001	1	4	1.37	1.73	1.85	130	145
LMCJ031/0	1/0	3	1.33	1.73	1.85	150	170
LMCJ041/0	1/0	4	1.47	1.85	1.97	150	170
LMCJ032/0	2/0	3	1.41	1.85	1.97	175	195
LMCJ042/0	2/0	4	1.56	1.97	2.09	175	195
LMCJ033/0	3/0	3	1.52	1.97	2.09	200	225
LMCJ043/0	3/0	4	1.69	2.15	2.27	200	225
LMCJ034/0	4/0	3	1.64	2.15	2.27	230	260
LMCJ044/0	4/0	4	1.82	2.28	2.43	230	260
LMCJ03250	250	3	1.81	2.28	2.43	255	290
LMCJ04250	250	4	2.00	2.52	2.67	255	290
LMCJ03350	350	3	2.04	2.52	2.67	310	350
LMCJ04350	350	4	2.26	2.72	2.87	310	350
LMCJ03400	400	3	2.13	2.72	2.87	335	380
LMCJ04400	400	4	2.37	2.83	2.98	335	380
LMCJ03500	500	3	2.31	2.83	2.98	380	430
LMCJ04500	500	4	2.57	3.11	3.28	380	430
LMCJ03600	600	3	2.54	3.11	3.28	420	475
LMCJ04600	600	4	2.83	3.41	3.58	420	475

\* Ampacities are based on Table 310(16) of the National Electrical Code (NEC) (NFPA 70-2023) for 3 current carrying conductors at 30°C ambient.

\*\* Small overcurrent protection limitations per NEC Article 240.4(D): (4) 14AWG – 15amps, (6) 12AWG – 20amps, (8) 10AWG – 30amps

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



# 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 and No. 50A.

*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. 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 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]mm<sup>2</sup>  
LIFELINE® (UL) MC 600V 90C WET LOCS FOR CT USE IEEE 1202/FT4 ST1  
SUN RES DIR BUR (UL) 2196 FRR 2HR FHIT 50' 480V UTILIZATION or FRR  
1HR FHIT 50A<sup>2</sup> 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 mm<sup>2</sup>

<sup>1</sup> FRR 2HR FHIT#50 includes taped splice for cables with conductor sizes 1/0AWG to 750MCM

<sup>2</sup> FRR 1HR FHIT#50A applies ceramic stand-off splice for cables with 1/0AWG to 350MCM conductors



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

Fire Resistive Cable for Survivability in a Fire



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	230	260
LMCJ012/0	2/0	0.69	0.97	1.07	265	300
LMCJ013/0	3/0	0.74	1.08	1.18	310	350
LMCJ014/0	4/0	0.80	1.18	1.28	360	405
LMCJ01250	250	0.87	1.26	1.36	405	455
LMCJ01350	350	0.98	1.35	1.45	505	570
LMCJ01400	400	1.03	1.40	1.50	545	615
LMCJ01500	500	1.11	1.58	1.70	620	700
LMCJ01600	600	1.22	1.79	1.91	690	780
LMCJ01750	750	1.32	1.79	1.91	785	885

\* Ampacities are based on Table 310.15(170) of the National Electric Code (NEC) NFPA 70-2023 for single insulated conductors in free air at 30°C

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