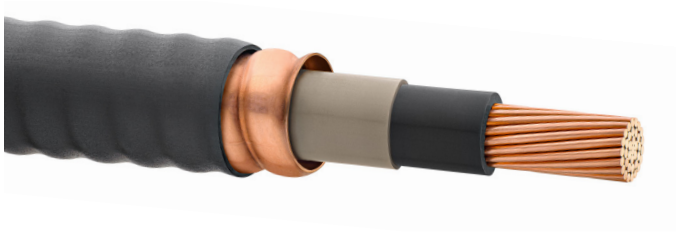
Lifeline® RC90 LSZH: One-Hour and Two-Hour Fire Resistive Single Conductor Cables – ULC-S139

Fire Resistive Cable for Survivability in a Fire



APPLICATIONS

Lifeline® RC90 LSZH fire-resistive single conductor cables were designed to meet and have successfully passed one-hour and two-hour fire rating certification tests per ULC-S139, *Standard for Fire Test for Circuit Integrity of Fire- Resistive Cables* and are classified in Electrical Circuit Integrity Systems Certified for Canada (FHIT7) No. 51 and No. 51A.

Lifeline® RC90 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® RC90 LSZH Cables are preferred over Mineral Insulated (MI) cables, concrete encasement or the construction of fire rated assemblies based on the facts that Lifeline® RC90 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 National Building Code of Canada Articles 3.2.6 and 3.2.7.10, NFPA 70, Articles 517, 695, 700, 708, 728 and 760 as well as NFPA 72, NFPA 101, NFPA 130 and NFPA 502.

SPECIFICATIONS & RATINGS

- Listed to CSA C22.2 No. 123 *Metal Sheathed Cables*, as the following type:
  - Type RC90 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 ULC-S139, Standard for Fire Test for Circuit Integrity of Fire- Resistive Cables, with one-hour and two-hour Circuit Integrity Rating (CIR)
- Electrical Circuit Integrity System (FHIT7) No. 51 of the UL Fire Resistance Directory with 2-hour CIR at 600 volts utilization covers cable constructions in table below and optional taped splice.
- Electrical Circuit Integrity System (FHIT7) No. 51A of the UL Fire Resistance Directory with 1-hour FRR at 600 volts utilization, covers cable constructions in the table below and optional ceramic stand-off splice for conductor sizes up to 350MCM.
- NFPA 70, NFPA 72, NFPA 101, NFPA 130, NFPA 502 compliant
- Corrugated Copper Armor meets Equipment Bonding Conductor requirements of CEC Rule 10-610.

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 MA P/N [##########] 1/C [X]AWG [Y] mm² LIFELINE® (cUL) RC90 600V SILICONE -40C SUN RES FT4-ST1 (ULC) S139 CIR 2HR FHIT7 51[1] 600V UTILIZATION or CIR 1HR FHIT7 51A[2] 600V 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] CIR 2HR FHIT7#51 includes taped splice for cables with conductor sizes 1/0AWG to 750MCM
[2] CIR 1HR FHIT7#51A applies ceramic stand-off splice for cables with 1/0AWG to 350MCM conductors

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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
LMCJ011/0C	1/0AWG	1	0.65	0.90	1.00	230	260
LMCJ012/0C	2/0AWG	1	0.69	0.96	1.06	265	300
LMCJ013/0C	3/0AWG	1	0.74	1.08	1.18	310	350
LMCJ014/0C	4/0AWG	1	0.80	1.20	1.30	360	405
LMCJ01250C	250MCM	1	0.87	1.27	1.37	405	455
LMCJ01300C	300MCM	1	0.93	1.27	1.37	445	500
LMCJ01350C	350MCM	1	0.98	1.35	1.45	505	570
LMCJ01400C	400MCM	1	1.03	1.40	1.50	545	615
LMCJ01500C	500MCM	1	1.11	1.57	1.69	620	700
LMCJ01600C	600MCM	1	1.22	1.77	1.89	690	780
LMCJ01750C	750MCM	1	1.32	1.77	1.89	785	885

* Ampacities are based on Table 1 of the Canadian Electrical Code (CEC) for single current carrying conductors at 30°C ambient.

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

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