



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

Fire-Resistive Cable for Survivability in a Fire







Applications

Lifeline® RC90 fire-resistive single conductor cables were designed to meet and have successfully passed the two-hour fire rating certification test per ULC-S139, Standard for Fire Test for Circuit Integrity of Fire-Resistive Power, Instrumentation, Control, and Data Cables.

Lifeline® RC90 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® RC90 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® RC90 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 and Ratings

- Listed to CSA 22.2 No. 123, Canadian Standard for Metal Sheathed Cables, as the following type:
- Type RC90 600 Volt, Rated 90°C and -40°C
- For Wet Locations
- For Cable Tray Use IEEE 1202/ FT4 Rated, ST1 Limited Smoke
- Classified to ULC-S139, Standard for Fire Test for Circuit Integrity of Fire-Resistive Power, Instrumentation, Control, and Data Cables, for two-hours installations
- Electrical Circuit Integrity System (FHIT7) No. 50 of the UL Fire Resistance Directory
- NFPA 70, NFPA 101 compliant
- Corrugated Copper Armor meets Equipment Grounding Conductor requirements of CEC Rule 10-618 and 10-804

Design Parameters

CONDUCTOR: 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:

Lifeline® RC90 Unjacketed Cables are marked as follows:
DRAKA MA P/N [########] [Y] / [Z] LIFELINE (UL) E66840T
RC90 600V 90C WET LOCS FOR CT USE IEEE 1202/FT4 ST1 -40C
(UL) R19359 FRR 2HR ULC S139 ELECTRIC CIRCUIT INTEGRITY
SYSTEM FHIT7#50 600V UTILIZATION (MONTH/YEAR)
(SEQUENTIAL FOOTAGE)

Notes: [#] is cable part number

[Y] is the size of the cable in AWG or kcmil [Z] is the size of the cable in mm²





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Lifeline® RC90 Single Conductor Power Cable

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-C	1/0	0.65	0.91	230	260
LMC012/0-C	2/0	0.69	0.97	265	300
LMC013/0-C	3/0	0.74	1.08	310	350
LMC014/0-C	4/0	0.80	1.18	360	405
LMC01250-C	250	0.87	1.26	405	455
LMC01350-C	350	0.98	1.35	505	570
LMC01400-C	400	1.03	1.40	545	615
LMC01500-C	500	1.11	1.58	620	700
LMC01600-C	600	1.22	1.79	690	780
LMC01750-C	750	1.32	1.79	785	885

^{*}Ampacities are based on Table 1 of the Canadian Electrical Code, Part I (C22.1-18) for single conductors based on an ambient temperature of 30°C

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

Prysmian Group