

Lifeline® Power Cables: RHW-2 Fire Resistive Cables in EMT Conduit and BreathSaver® XW Phenolic Conduit

UL 2196 Certified Fire Resistive Cable for Survivability in a Fire



Applications

Lifeline® fire resistive cables were designed to meet and have successfully passed the two hour fire rating certification test per UL 2196, *Standard for Tests for Fire Resistive Cables*.

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

- Fire Pumps
- Emergency Feeder Cables
- Ventilating Fans
- Exit Lighting
- Tall Buildings
- Hospitals
- Transit
- Elevators

Lifeline® Cables are preferred over Mineral Insulated (MI) cables, concrete encasement or the construction

of fire rated assemblies based on the facts that Lifeline® Cables are less costly, easier to install, and readily available.

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



RoHS
COMPLIANT



Specifications and Ratings

- Listed to UL 44, *Thermoset Insulated Wires and Cables*, as the following type:
 - RHW-2, 600 Volt, Rated 90°C Dry/90°C Wet
- Classified to UL 2196, *Standard for Tests for Fire Resistive Cables*, for two-hours.
- Electrical Circuit Integrity System (FHIT) No. 25C of the UL Fire Resistance Directory for horizontal installations in EMT conduit or BreathSaver® XW Phenolic conduit and vertical installations in BreathSaver® XW Phenolic conduit
- Sunlight Resistant
- FT4 Rated
- ST1
- IEEE 1202
- NFPA 70, NFPA 101, NFPA 130, NFPA 502 (when approved by AHJ)

Design Parameters

CONDUCTORS: Bare stranded copper, 8 AWG through 750kcmil

INSULATION: High Temperature Mica Tapes layer. Ceramifiable silicone, Low Smoke Zero Halogen (LSZH)

JACKET: Cross-linked polyolefin (XLPO), Low Smoke Zero Halogen

IDENTIFICATION:

MADE IN USA DRAKA MA P/N [#####] [X]AWG ([Y]mm²) LIFELINE® (UL) E2268 RHW-2 600V FT4 ST1 VW1 (UL) R19359 FRR 2 HR FHIT#25C UL 2196 480V UTILIZATION ([mm]/[yr]) [2FT]

Notes: [#] is cable part number
[X] is cable size in AWG or kcmil
[Y] is cable size in mm²

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Lifeline® Power Cable

LIFELINE® Part Number	Conductor Size AWG /MCM	Number of Strands	Insulation Thickness in (mm)	Overall Diameter in (mm)	Approximate Weight lbs./Mft (kg/km)	Ampacity ¹ 90°C Amps
G30064	8	7	0.060 (1.5)	0.31 (7.8)	84 (125)	55
G30065	6	7	0.075 (1.9)	0.37 (9.5)	129 (192)	75
G30066	4	7	0.075 (1.9)	0.42 (10.7)	185 (275)	95
G30067	3	7	0.075 (1.9)	0.45 (11.4)	224 (333)	115
G30068	2	7	0.075 (1.9)	0.48 (12.2)	269 (400)	130
G30069	1	19	0.100 (2.5)	0.57 (14.5)	364 (542)	145
G30070	1/0	19	0.100 (2.5)	0.61 (15.5)	441 (656)	170
G30071	2/0	19	0.100 (2.5)	0.65 (16.6)	535 (796)	195
G30072	3/0	19	0.100 (2.5)	0.70 (17.9)	656 (976)	225
G30073	4/0	19	0.100 (2.5)	0.76 (19.2)	803 (1195)	260
G30074	250	37	0.130 (3.3)	0.86 (21.9)	987 (1469)	290
G31501	300	37	0.130 (3.3)	0.92 (23.4)	1160 (1726)	320
G30075	350	37	0.130 (3.3)	0.97 (24.7)	1306 (1943)	350
G31496	400	37	0.130 (3.3)	1.02 (25.9)	1500 (2232)	380
G30076	500	37	0.130 (3.3)	1.10 (27.9)	1820 (2708)	430
G30077	600	61	0.145 (3.7)	1.21 (30.6)	2199 (3272)	475
G30078	750	61	0.145 (3.7)	1.31 (33.3)	2699 (4016)	535

Ampacities are based on Table 310.16 of the National Electrical Code (NFPA 70) for 3 current carrying conductors at 30°C ambient.

The above dimensions are approximate and subject to normal manufacturing tolerances. Information subject to change without notice.



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Minimum Allowable Conduit Size												
Conductor Size	Horizontal Installation in EMT Conduit - Number of Conductors				Horizontal Installation in XW BreathSaver Conduit - Number of Conductors				Vertical Installation in XW BreathSaver Conduit - Number of Conductors			
	1	2	3	4	1	2	3	4	1	2	3	4
8	1/2	1	1-1/4	1-1/4	3/4	3/4	1	1	3/4	1	1-1/4	1-1/4
6	3/4	1-1/4	1-1/4	1-1/2	3/4	1	1-1/4	1-1/4	1	1-1/2	2-1/2	2-1/2
4	1	1-1/4	1-1/2	2	3/4	1	1-1/4	1-1/2	1-1/4	2	2-1/2	3
3	1	1-1/4	1-1/2	2	3/4	1-1/4	1-1/4	1-1/2	1-1/4	2	2-1/2	3
2	1	1-1/4	1-1/2	2	3/4	1-1/4	1-1/2	1-1/2	1-1/4	2-1/2	3	3
1	1-1/4	2	2	2-1/2	1	1-1/2	2	2-1/2	1-1/2	2-1/2	3-1/2	3-1/2
1/0	1-1/4	2	2-1/2	2-1/2	1-1/4	1-1/2	2-1/2	2-1/2	2	3	3-1/2	3-1/2
2/0	1-1/2	2	2-1/2	3	1-1/4	2	2-1/2	3	2	3	3-1/2	4
3/0	1-1/2	2-1/2	2-1/2	3	1-1/4	1-1/2	2-1/2	2-1/2	2-1/2	3-1/2	4	4
4/0	2	2-1/2	3	3	1-1/4	2	2-1/2	3	2-1/2	3-1/2	4	5
250	2	2-1/2	3	3	1-1/4	2-1/2	3	3	2-1/2	3-1/2	4	5
300	2	2-1/2	3	3-1/2	1-1/2	2-1/2	3	3-1/2	2-1/2	3-1/2	5	5
350	2	2-1/2	3	3-1/2	1-1/2	2-1/2	3	3-1/2	3	3-1/2	5	5
400	2	3	4	4	1-1/2	2-1/2	3-1/2	4	3	4	5	6
500	2-1/2	3	3-1/2	4	2	3	3-1/2	4	2-1/2	3-1/2	5	6
600	2-1/2	3	4	--	2-1/2	3	4	5	3	4	5	5
750	2-1/2	3-1/2	--	--	2-1/2	3-1/2	4	5	3	4	5	6

With AHJ approval, a larger size conduit may be required if an EGC is used.

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