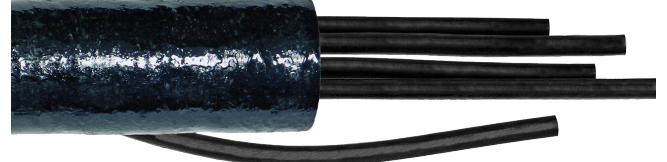


Lifeline® Power Cables

Lifeline® RHW-2 Two-Hour Fire Resistive Cables in EMT Conduit and RTRC XW Phenolic Conduit



SPECIFICATIONS & 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. FRR two-hour 480V utilization
- Electrical Circuit Integrity System (FHIT) No. 25E of the UL Fire Resistance Directory.
- FT4-ST1 12AWG and larger
- VW1 all sizes
- NFPA 70, NFPA 72, NFPA 101, NFPA 130 and NFPA 502

DESIGN PARAMETERS

CONDUCTORS: Bare stranded copper, 14 AWG through 750kcmil

FIRE BARRIER: High Temperature Mica Tapes

INNER INSULATION: Ceramifiable silicone, Low Smoke Zero Halogen (LSZH)

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

IDENTIFICATION:

ORIGIN USA PRYSMIAN MA P/N [#####] [X]AWG ([Y] mm²)
LIFELINE (UL) RHW-2 600V FT4 ST1[1] VW1 (UL) 2196 FHIT25E FRR
2 HR 480V UTILIZATION ([mm]/[yr]) [2ft]

- Notes:** [#] is cable part number
[X] is cable size in AWG or kcmil
[Y] is cable size in mm²
[1] FT4 ST1 12AWG and larger



RoHS
COMPLIANT

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Table 2 – Cable Description

| 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* 75°C Amps | Ampacity* 90°C Amps |
|-----------------------|-------------------------|-------------------|------------------------------|--------------------------|------------------------------------|---------------------|---------------------|
| H30061 | 14 | 7 | 0.045 (1.1) | 0.20 (5.0) | 30 (45) | 20** | 25** |
| H30062 | 12 | 7 | 0.045 (1.1) | 0.22 (5.5) | 37 (55) | 25** | 30** |
| H30063 | 10 | 7 | 0.045 (1.1) | 0.24 (6.1) | 52 (77) | 35** | 40** |
| H30064 | 8 | 7 | 0.060 (1.5) | 0.31 (7.7) | 84 (125) | 50 | 55 |
| H30065 | 6 | 7 | 0.075 (1.9) | 0.38 (9.5) | 129 (192) | 65 | 75 |
| H30066 | 4 | 7 | 0.075 (1.9) | 0.42 (10.7) | 185 (275) | 85 | 95 |
| H30067 | 3 | 7 | 0.075 (1.9) | 0.45 (11.4) | 224 (333) | 100 | 115 |
| H30068 | 2 | 7 | 0.075 (1.9) | 0.48 (12.2) | 269 (400) | 115 | 130 |
| H30069 | 1 | 19 | 0.100 (2.5) | 0.57 (14.5) | 364 (542) | 130 | 145 |
| H30070 | 1/0 | 19 | 0.100 (2.5) | 0.61 (15.5) | 441 (656) | 150 | 170 |
| H30071 | 2/0 | 19 | 0.100 (2.5) | 0.65 (16.6) | 535 (796) | 175 | 195 |
| H30072 | 3/0 | 19 | 0.100 (2.5) | 0.70 (17.9) | 656 (976) | 200 | 225 |
| H30073 | 4/0 | 19 | 0.100 (2.5) | 0.76 (19.3) | 803 (1195) | 230 | 260 |
| H30074 | 250 | 37 | 0.130 (3.3) | 0.87 (22.0) | 987 (1469) | 255 | 290 |
| H31501 | 300 | 37 | 0.130 (3.3) | 0.92 (23.3) | 1160 (1726) | 285 | 320 |
| H30075 | 350 | 37 | 0.130 (3.3) | 0.97 (24.6) | 1306 (1943) | 310 | 350 |
| H31496 | 400 | 37 | 0.130 (3.3) | 1.01 (25.7) | 1500 (2232) | 335 | 380 |
| H30076 | 500 | 37 | 0.130 (3.3) | 1.10 (27.8) | 1820 (2708) | 380 | 430 |
| H30077 | 600 | 61 | 0.145 (3.7) | 1.21 (30.6) | 2199 (3272) | 420 | 475 |
| H30078 | 750 | 61 | 0.145 (3.7) | 1.31 (33.1) | 2699 (4016) | 475 | 535 |

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

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

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

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Lifeline® RHW-2 Two-Hour Fire Resistive Cables in EMT Conduit and RTRC XW Phenolic Conduit



Table 3a – Minimum Allowable Conduit Size EMT Conduit

| Minimum Allowable Conduit Size EMT Conduit | | | | | | | | | | |
|--|-------------------------|-----|-----|-----|-----------------------|-----------------------|-----|-----|-----|-----------------------|
| Conductor Size | Horizontal Installation | | | | | Vertical Installation | | | | |
| | Number of Conductors | | | | | Number of Conductors | | | | |
| | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 |
| 14 | ½ | ¾ | ¾ | ¾ | 1 | ½ | ½ | ¾ | ¾ | 1-¼ |
| 12 | ½ | ¾ | 1 | 1 | 1-¼ | ½ | ¾ | ¾ | 1 | 1-¼ |
| 10 | ½ | ¾ | 1 | 1-¼ | 1-¼ | ½ | ¾ | 1 | 1 | 1-½ |
| 8 | ½ | 1 | 1-¼ | 1-¼ | 1-¼ | ½ | 1 | 1-¼ | 1-¼ | 1-¼ |
| 6 | ¾ | 1-¼ | 1-¼ | 1-½ | 2 | ¾ | 1-¼ | 1-¼ | 1-½ | 2 |
| 4 | 1 | 1-¼ | 1-½ | 2 | 2 | 1 | 1-¼ | 1-½ | 2 | 2 |
| 3 | 1 | 1-¼ | 1-½ | 2 | 2 | 1 | 1-¼ | 1-½ | 2 | 2 |
| 2 | 1 | 1-½ | 2 | 2 | 2-½ (2 ¹) | 1 | 1-½ | 1-½ | 2 | 2 |
| 1 | 1-¼ | 2 | 2 | 2-½ | 2-½ | 1-¼ | 2 | 2 | 2-½ | 2-½ |
| 1/0 | 1-¼ | 2 | 2-½ | 2-½ | 3 | 1-¼ | 2 | 2-½ | 2-½ | 3 |
| 2/0 | 1-¼ | 2 | 2-½ | 2-½ | 3 | 1-¼ | 2 | 2-½ | 2-½ | 3 |
| 3/0 | 1-½ | 2 | 2-½ | 3 | 3 | 1-½ | 2-½ | 2-½ | 3 | 3-½ |
| 4/0 | 1-½ | 2-½ | 2-½ | 3 | 3-½ | 1-½ | 2-½ | 3 | 3 | 3-½ |
| 250 | 2 | 2-½ | 3 | 3 | 3-½ | 2 | 2-½ | 3 | 3 | 4 (3-½ ²) |
| 300 | 2 | 2-½ | 3 | 3-½ | 4 | 2 | 2-½ | 3 | 3-½ | (4 ³) |
| 350 | 2 | 2-½ | 3 | 3-½ | 4 | 2 | 2-½ | 3 | 3-½ | (4 ³) |
| 400 | 2 | 3 | 3-½ | 4 | N/A | 2 | 3 | 3-½ | 4 | N/A |
| 500 | 2-½ | 3 | 3-½ | 4 | N/A | 2-½ | 3 | 3-½ | 4 | N/A |
| 600 | 2-½ | 3-½ | 4 | N/A | N/A | 2-½ | 3-½ | 4 | N/A | N/A |
| 750 | 2-½ | 3-½ | N/A | N/A | N/A | 2-½ | 3-½ | N/A | N/A | N/A |

For questions regarding installation and conduit size, including the use of EGC, contact the Pysmian Lifeline team at na.lifeline@prysmian.com

- ¹ 2 inch conduit may be used when ground conductor is 8AWG or smaller
- ² 3½ inch conduit may be used when ground conductor is 2AWG or smaller
- ³ 4 inch conduit may be used when ground conductor is 1AWG or smaller

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Table 3b – Minimum Allowable Conduit Size RTRC XW Phenolic Conduit

| Minimum Allowable Conduit Size RTRC XW Phenolic Conduit | | | | | | | | | | |
|---|-------------------------|-----|-----|-----|-----------------------|-----------------------|-----|-----|-----|-----------------------|
| Conductor Size | Horizontal Installation | | | | | Vertical Installation | | | | |
| | Number of Conductors | | | | | Number of Conductors | | | | |
| | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 |
| 14 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 12 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 10 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 8 | 1 | 1 | 1 | 1 | 1-¼ | 1 | 1 | 1 | 1 | 1-¼ |
| 6 | 1 | 1 | 1-¼ | 1-¼ | 1-½ | 1 | 1 | 1-¼ | 1-¼ | 1-½ |
| 4 | 1 | 1 | 1-¼ | 1-½ | 1-½ | 1 | 1 | 1-¼ | 1-½ | 1-½ |
| 3 | 1 | 1 | 1-¼ | 1-½ | 2 | 1 | 1 | 1-¼ | 1-½ | 2 |
| 2 | 1 | 1-¼ | 1-¼ | 1-½ | 2 | 1 | 1-¼ | 1-¼ | 1-½ | 2 |
| 1 | 1 | 1-¼ | 1-½ | 2 | 2-½ | 1 | 1-¼ | 2 | 2-½ | 2-½ |
| 1/0 | 1 | 1-¼ | 2 | 2-½ | 2-½ | 1 | 1-½ | 2 | 2-½ | 2-½ |
| 2/0 | 1 | 1-½ | 2 | 2-½ | 2-½ | 1 | 1-½ | 2-½ | 2-½ | 3 (2-½ ⁴) |
| 3/0 | 1-¼ | 1-½ | 2-½ | 2-½ | 3 | 1-¼ | 2 | 2-½ | 3 | 3 |
| 4/0 | 1-¼ | 2 | 2-½ | 3 | 3 | 1-¼ | 2 | 2-½ | 3 | 3-½ |
| 250 | 1-¼ | 2-½ | 3 | 3 | 4 (3-½ ⁵) | 1-¼ | 2-½ | 3 | 3 | 4 (3-½ ⁵) |
| 300 | 1-½ | 2-½ | 3 | 3-½ | 4 | 1-½ | 2-½ | 3 | 3-½ | 4 |
| 350 | 1-½ | 2-½ | 3 | 3-½ | (46) | 1-½ | 2-½ | 3 | 3-½ | (4 ⁶) |
| 400 | 2 | 3 | 3-½ | 4 | 4 | 2 | 3 | 3-½ | 4 | 4 |
| 500 | 2 | 3 | 3-½ | 4 | N/A | 2 | 3 | 3-½ | 4 | N/A |
| 600 | 2-½ | 3-½ | 4 | N/A | N/A | 2-½ | 3-½ | 4 | N/A | N/A |
| 750 | 2-½ | 3-½ | 4 | N/A | N/A | 2-½ | 3-½ | 4 | N/A | N/A |

For questions regarding installation and conduit size, including the use of EGC, contact the Prysmian Lifeline team at na.lifeline@prysmian.com

⁴ 2-½ inch conduit may be used when ground conductor is 2AWG or smaller

⁵ 3½ inch conduit may be used when ground conductor is 2AWG or smaller

⁶ 4 inch conduit may be used when ground conductor is 3/0 or smaller

Table 4 – Minimum Allowable Conduit Bend Radius

| Trade Size | EMT Conduit Bend Radius | RTRC XW Phenolic Conduit |
|------------|-------------------------|---------------------------------|
| ½ | 4" | N/A |
| ¾ | 4-½" | N/A |
| 1 | 5-¾" | 12" |
| 1-¼ | 7-¼" | 12" |
| 1-½ | 8-¼" | 12" |
| 2 | 9-½" | 12" |
| 2-½ | 10-½" | 12" |
| 3 | 13" | 36" Horizontal, 24" Vertical |
| 3-½ | 15" | 24" |
| 4 | 16" | 36" |



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