

Manufacturer's Instructions for Lifeline® Power Cables

Lifeline® RHW-2 Two-Hour Fire Resistive Cables in XW BreathSaver® Phenolic Conduit

Technical Information Sheet #301H

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This Technical Information Sheet (TIS) covers Lifeline® RHW-2 or RW90 Cables: UL Certified and Listed Two Hour Fire Resistive Cable for use in BreathSaver® Phenolic Conduit

Applications

Lifeline® Power Cables have been qualified and listed to the demanding requirements of UL 2196, Tests for Fire Resistive Cables, and are UL Listed Type RHW-2 and RW90.

Lifeline® Power Cables meet various industry code requirements (NFPA 70, NFPA 101 and NFPA 130) for fire resistance according to UL Standard 2196 when selected and installed per applicable codes including federal, state, local and municipal rules, laws and regulations as well as Electrical Circuit Integrity System 25C (FHIT 25C) and TIS #301H - Manufacturer's Instructions. NFPA 502 can also be met when approved by an AHJ. 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 codes or addendums which covers the use of Lifeline® RHW-2 or RW90 Cables, Fire Resistive Cables.

2) UL Electrical Circuit Integrity System #25C (FHIT 25C)

The most current listing details and supporting information applicable to Lifeline® Cables' fire resistive rating classification can be obtained from UL's 'Online Certification Directory' website by searching for keyword: "FHIT 25C".

3) Manufacturer's Instructions - TIS #301H

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

Installation Parameters

1) Cable: Lifeline® RHW-2 or RW90

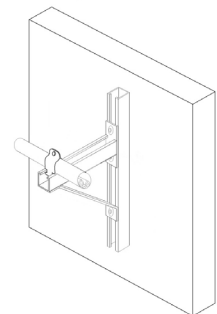
Code compliant cable certified as fire resistive per testing according to UL 2196 and listed in FHIT 25C. Fire resistive rating is two-hours in horizontal and vertical installations. Appropriate cable selection is required for systems requiring a fire resistive rating.

2) Conduit System

Code compliant conduit system which meets the following requirements:

- a. Must be BreathSaver® Phenolic Conduit or other fire rated components (described in FHIT 25C) proven to meet the required fire resistance ratings (i.e two hours). No substitute components are allowed.
- b. Conduit assemblies shall be secured to a fire rated structure comprised of steel or other fire rated components proven to meet the required fire resistance ratings (i.e. two hours).

Note: Installations where conduits run parallel to and extend away from the support structure require additional support. In such an installation, the horizontal support members shall be reinforced with a knee brace or equivalent. The drawing to the right shows an example installation with knee brace installed. The knee brace shall be secured to vertical and horizontal structural members using 3/8in. or larger steel bolts. Recommended bracing material is steel at least ¼ inch thick with cross sectional area 0.3 in.² or greater.



- c. Maximum support spacing shall be in accordance with National Electric Code article 355.30 with exception that spacing for conduit sizes 2½ and larger shall not exceed 5ft.

3) Conduit Sizing

Lifeline® RHW-2 or RW90 FHIT.25C datasheets provide cable diameters to calculate conduit fill which in lieu of the typical National Electrical Code requirements cannot exceed maximum fill level listed in datasheet and FHIT 25C.



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Prysmian Group

700 Industrial Drive | Lexington, SC 29072 | +1-800-845-8507 | www.prysmiangroup.com
22 Joseph E. Warner Blvd. | North Dighton, MA 02764 | +1-508-822-5444