PRODUCT DATASHEET

2HB12-50JPLR

DragonSkin 1/2" Fire-Resistant UL 2196 Certified Standalone Coaxial Cable, Meets NFPA 72 & NFPA 1221 Survivability, Maintains In-Building Communications During Fires, Made in the USA

This standalone coaxible cable is certified to meet the UL 2196 Standard for Fire Test for Circuit Integrity of Fire-Resistive Power, Instrumentation, Control and Data Cables. Visit the DragonSkin Cable Website: www.dragonskincable.com



FEATURES / BENEFITS

- **First UL Listed standalone communications cable meeting NFPA 72 and 1221 survivability standard**
  Verifies the cable survives 2 hours at temperatures up to 1,850 degrees F and the water spray test without conduit or additional wrapping
- **Enables cellular and public safety radio communications to and from all floors of a burning building**
  Ensures emergency responders and building occupants have reliable access to communcations during fires
- **No conduit or cable wrapping required**
  Reduces cable size and weight; simplifies installation
- **CATVP plenum-certified**
  TMeets certification for use in the environmental air handling space in buildings
- **Coaxial cable features solid inner and outer conductors**
  Virtually eliminates intermodulation
- **Maintains minimum bending radius at all times**
  Accelerates installations, especially in smaller spaces and older buildings
- **Uses standard RFS Technologies connectors and installation techniques**
  Eliminates the need for specialized parts or expertise

Technical features

STRUCTURE

Size		1/2
Jacket Option		Plenum-Rated, Color Red
Inner Conductor Diameter	mm (in)	4.8 (0.19)
Inner Conductor Material		Copper Wire
Dielectric Diameter	mm (in)	11.8 (0.47)
Outer Conductor Diameter	mm (in)	13.8 (0.54)
Outer Conductor Material		Corrugated Copper
Jacket Diameter	mm (in)	18 (0.71)
Jacket Material		PVC, Plenum-Rated, Red Color
Cable Type		Air-Dielectric, Corrugated

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TESTING AND ENVIRONMENTAL

Fire Performance		Flame Retardant, Plenum Rated
Flame Retardant Jacket Specifications		CMP (Communications Multipurpose Plenum) Meets/Exceeds Steiner Tunnel Test Method NFPA-262. NEC820-53 (a), CATVP, UL2196 (2hours)
Regulatory Compliance		NEC Article 820 CATVP Cable to UL1655 Circuit integrity UL Listed to UL2196 CATVP, NFPA-262, NFPA130, NFPA 72, NFPA 1221 2019 (section 5.5.1.1) Canadian CSA C.22.2/FT6 UL R40176, E239351, UL System FHIT 1250
Installation Temperature	°C(°F)	-20 to 60 (-4 to 140)
Storage Temperature	°C (°F)	-40 to 75 (-40 to 167)
Operation Temperature	°C(°F)	-40 to 1010 (-40 to 1850)

ELECTRICAL SPECIFICATIONS

Impedance	Ω	50 +/- 2
Maximum Frequency	GHz	1
Velocity	%	85
Capacitance	pF/m (pF/ft)	70.6 (21.5)
Inductance	uH/m (uH/ft)	0.19 (0.058)
Peak Power Rating	kW	40
RF Peak Voltage	Volts	2000
Jacket Spark	Volt RMS	8000
Inner Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	0.96 (0.29)
Outer Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	1.31 (0.4)
Return Loss (VSWR) Performance		14 (1.5) @10-1000 MHz

MECHANICAL SPECIFICATIONS

Cable Weight, Nominal	kg/m (lb/ft)	0.51 (0.34)
Minimum Bending Radius, Single Bend	mm (in)	178 (7)
Minimum Bending Radius, Repeated Bends	mm (in)	254 (10)
Bending Moment	Nm (lb-ft)	8.7 (6.4)
Tensile Strength	N (lb)	890 (200)
Recommended / Maximum Clamp Spacing	m (ft)	0.61 / (2 /)
Crush Strength	kg/mm (lb/ln)	31.25 (175)

External Document Links

Review the Complete DragonSkin Technical Specifications

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LINK TO VEX FILE

Notes

ATTENUATION @ 20°C (68°F) AND @ 1010°C (1850°F)

Frequency, MHz	Insertion Loss (IL) dB/100ft @ 20°C (68°F)	Insertion Loss (IL) dB/100ft @ 1010°C (1850°F)
150	0.90	1.80
450	1.59	3.15
700	2.07	4.04
800	2.22	4.33
900	2.35	4.59
1000	2.47	4.84

* To generate this table a 100 ft sample was used with 10ft of DragonSkin being affected by fire.

Associated UL Category	Definition
FHJW	Fire-Resistive Data / Communication Cable
FHIT	Electrical Circuit Integrity Systems
FHJR	Fire-Resistive Cable

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