

Scope

Firewall® XLR is a high performance, reduced size control cable specifically designed for applications in today's nuclear generating facilities. It is intended for use in harsh and demanding environments where size

and installation constraints limit the use of standard cables. It may be installed in trays, ducts, conduits or in direct burial applications to perform a variety of low voltage control and related functions.

Features

- Reduced size and weight for increased raceway capacity
- Nuclear qualified with a minimum 40-year thermal life expectancy at 90°C
- Radiation resistant (up to 200 megarads)
- Thermoset insulation and jacket for enhanced thermal stability
- XLPE jacket survives LOCA and its superior heat resistance (90°C) prevents embrittlement normally seen in conventional jacketing materials
- Low jacket coefficient of friction facilitates installation with reduced pulling tension
- Specially formulated insulation and jacket for superior long term water resistance
- Extremely flame retardant
- Full traceability
- Excellent mechanical properties
- Tin-coated copper conductors for improved terminations and corrosion resistance
- All singles pass a wet dielectric (tank) test prior to cabling to verify insulation integrity
- All jackets have printed sequential footage markers for improved inventory control
- Jacket strippability facilitates termination

Performance Standards

- Insulation and jacket properties in accordance with ICEA Standard S-66-524
- Class 1E qualified in accordance with IEEE-383 1974 and IEEE-323 (Rockbestos Report QR-5805)
- Cable passes IEEE-383 1974 70,000 BTU/hr vertical tray flame test as modified by NRC Reg. Guide 1.131
- Single conductors pass the vertical tray flame tests specified in IEEE-383 1974 para. 2.5.6 (ICEA S-19-81 Section 6.19.6), ICEA S-66-524 para. 6.12.5 and UL VW-1
- Quality assurance program in accordance with 10 CFR 50 Appendix B

Construction

Conductor:

Annealed, tin-coated copper, Class "B" strand

Insulation:

Proprietary heat, moisture and radiation resistant flame retardant crosslinked polyethylene

Circuit Identification:

Colored insulation per ICEA Method 1, Table K-1

Fillers:

(When required)

Binder Tape:

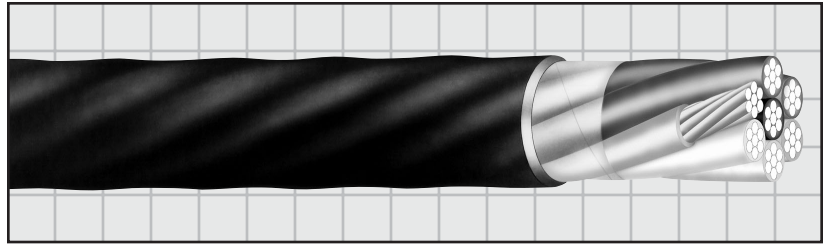
Helically applied

Jacket:

Black proprietary heat, moisture and radiation resistant, flame retardant crosslinked polyethylene

* Rated 90°C for normal operation in wet and dry locations, 130°C for emergency overload conditions, and 250°C for short circuit conditions.

Firewall® XLR
Control Cable
 (XLPE/XLPE)
 90°C*, 600 Volt
 Class 1E Nuclear



Spec. RSS-3-093

14 AWG, 7 Strand

Product Code	Number of Conductors	Insulation Thickness		Insulated Conductor Diameter (Inch)	Jacket Thickness (Mils)	Nominal Overall Diameter		Approximate Net Weight (Lbs/M')
		(Inch)	(mm)			(Inch)	(mm)	
C15-0020	2	.025	.64	.13	35	.33	8.38	65
C15-0030	3	.025	.64	.13	35	.35	8.89	85
C15-0040	4	.025	.64	.13	35	.39	9.91	105
C15-0050	5	.025	.64	.13	35	.42	10.67	125
C15-0070	7	.025	.64	.13	35	.45	11.43	160
C15-0090	9	.025	.64	.13	45	.56	14.22	225
C15-0120	12	.025	.64	.13	45	.63	16.00	275
C15-0190	19	.025	.64	.13	45	.72	18.29	410
C15-0250	25	.025	.64	.13	65	.88	22.35	570
C15-0370	37	.025	.64	.13	65	1.01	25.65	800

12 AWG, 7 Strand

C16-0020	2	.025	.64	.15	35	.37	9.40	90
C16-0030	3	.025	.64	.15	35	.39	9.91	120
C16-0040	4	.025	.64	.15	35	.43	10.92	145
C16-0050	5	.025	.64	.15	35	.48	12.19	180
C16-0070	7	.025	.64	.15	35	.51	12.95	230
C16-0090	9	.025	.64	.15	45	.63	16.00	320
C16-0120	12	.025	.64	.15	45	.71	18.03	400
C16-0190	19	.025	.64	.15	65	.86	21.84	620
C16-0250	25	.025	.64	.15	65	.99	25.15	800
C16-0370	37	.025	.64	.15	65	1.14	28.96	1150

10 AWG, 7 Strand

C17-0020	2	.025	.64	.17	35	.42	10.67	125
C17-0030	3	.025	.64	.17	35	.44	11.18	160
C17-0040	4	.025	.64	.17	35	.48	12.19	210
C17-0050	5	.025	.64	.17	45	.55	13.97	270
C17-0070	7	.025	.64	.17	45	.60	15.24	340
C17-0090	9	.025	.64	.17	45	.71	18.03	440
C17-0120	12	.025	.64	.17	65	.84	21.34	600
C17-0190	19	.025	.64	.17	65	.97	24.64	900
C17-0250	25	.025	.64	.17	65	1.13	28.70	1180
C17-0370	37	.025	.64	.17	65	1.31	33.27	1680

* Rated 90°C for normal operation in wet and dry locations, 130°C for emergency overload conditions, and 250°C for short circuit conditions.