

## Scope

Firewall<sup>®</sup> III Multi-Conductor Power Cable is a totally thermoset construction specifically designed for applications in Utility generating plants and substations. It is intended for use in harsh and demanding

environments, including Class 1E nuclear applications. It may be installed in trays, ducts, conduits or in direct burial applications to perform a variety of low voltage power, lighting and related functions.

## Features

- Thermoset insulation and jacket for enhanced thermal stability
- Specially formulated insulation for superior long term water resistance
- Extremely flame retardant
- Nuclear qualified with a minimum 40-year thermal life expectancy at 90°C
- Radiation resistant (up to 200 megarads)
- 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
- Easy strippability for installation use

## Performance Standards

- Insulation in accordance with ICEA standard S-66-524 and UL 44 for type XHHW-2
- Jackets in accordance with ICEA standard S-19-81 for heavy-duty chlorosulfonated polyethylene (CSPE) and neoprene
- Class 1E qualified in accordance with IEEE-383 1974 and IEEE-323 (Rockbestos Reports QR-5804 or QR-5805)
- Cable passes IEEE-383 1974 70,000 BTU/hr vertical tray flame test as modified by NRC Reg. Guide 1.131
- Cable passes ICEA 210,000 BTU/hr vertical tray flame test (Standard T-29-520)
- Single conductors pass the vertical flame tests specified in IEEE-383 1974 Para. 2.5.6 (ICEA S-19-81 Section 6.19.6) and UL VW-1
- Quality Assurance program in accordance with 10 CFR 50 Appendix B
- UL Listed Type TC for cable tray installations (UL 1277)
- In accordance with the National Electrical Code (Approved for Class 1, Division 2 hazardous locations)

## Construction

### Conductor:

Annealed, tin-coated copper, Class "B" strand (ASTM B-8 & B-33)

### Insulation:

Proprietary heat, moisture and radiation resistant, flame retardant crosslinked polyethylene

### Circuit Identification:

Printed numbers per ICEA Method 4

### Ground Wires(s):

Annealed copper Class "B" strand, sized to comply with NEC requirements

### Fillers:

(When required)

### Binder Tape:

Helically applied

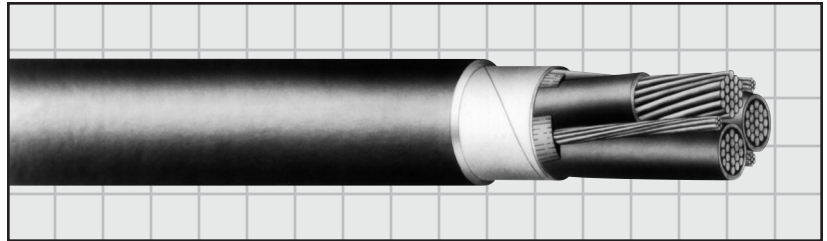
### Jacket:

Black, heavy-duty chlorosulfonated polyethylene (also available in Neoprene and FR-XLPE)

Note: Sizes 250 kcmil and larger are normally supplied with neoprene jackets.

\* 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® III**  
**Power Cable**  
 (XLPE/CSPE)  
 90°C\*, 600 Volt  
 Class 1E Nuclear  
 NEC Type TC  
 UL Listed  
 Spec. RSS-3-021



## Three Conductors

Product Code	Conductor Size (AWG/kcmil)	Number of Strands	Insulation Thickness		No. & Size of Ground Wires	Jacket Thickness (Mils)	Nominal Overall Diameter		Approximate Net Weight (Lbs/M')
			(Inch)	(mm)			(Inch)	(mm)	
P62-0144	14	7	.030	.76	3-18 AWG	45	.38	9.65	125
P62-0124	12	7	.030	.76	3-16 AWG	45	.42	10.67	170
P62-0114	10	7	.030	.76	3-14 AWG	45	.47	11.94	235
P62-0084	8	7	.045	.76	3-14 AWG	60	.64	16.26	355
P62-0064	6	7	.045	.76	3-12 AWG	60	.72	18.29	510
P62-0044	4	7	.045	.76	3-12 AWG	60	.82	20.83	685
P62-0024	2	7	.045	.76	3-10 AWG	80	.99	25.15	1045
P62-3119	1	19	.055	1.40	3-10 AWG	80	1.11	28.19	1290
P62-0104	1/0	19	.055	1.40	3-10 AWG	80	1.20	30.48	1545
P62-0204	2/0	19	.055	1.40	3-10 AWG	80	1.29	32.77	1850
P62-3421	3/0	19	.055	1.40	3-8 AWG	80	1.40	35.56	2310
P62-0404	4/0	19	.055	1.40	3-8 AWG	80	1.52	38.61	2785
P62-3422	250	37	.065	1.65	3-8 AWG	110	1.74	44.20	3385
P62-0354	350	37	.065	1.65	3-7 AWG	110	1.96	49.78	4435
P62-0504	500	37	.065	1.65	3-6 AWG	110	2.24	56.90	6190
P62-3423	750	61	.080	2.03	3-5 AWG	110	2.70	68.58	9130

## Four Conductors

P62-0146	14	7	.030	.76	3-18 AWG	45	.42	10.67	150
P62-0126	12	7	.030	.76	3-16 AWG	45	.47	11.94	200
P62-0116	10	7	.030	.76	3-14 AWG	60	.55	13.97	300
P62-5036	8	7	.045	.76	2-12 AWG	60	.70	17.78	430
P62-5037	6	7	.045	.76	2-10 AWG	60	.79	20.07	610
P62-5038	4	7	.045	.76	2-10 AWG	80	.94	23.88	885
P62-5124	2	7	.045	.76	2-8 AWG	80	1.09	27.69	1315
P62-5039	1	19	.055	1.40	2-8 AWG	80	1.23	31.24	1620
P62-5040	1/0	19	.055	1.40	2-8 AWG	80	1.32	33.53	1920
P62-5041	2/0	19	.055	1.40	2-8 AWG	80	1.43	36.32	2340
P62-5042	3/0	19	.055	1.40	2-7 AWG	80	1.55	39.37	2825
P62-5043	4/0	19	.055	1.40	2-7 AWG	110	1.75	44.45	3620
P62-5044	250	37	.065	1.65	2-7 AWG	110	1.92	48.77	4230
P62-5045	350	37	.065	1.65	2-6 AWG	110	2.17	55.12	5700
P62-5046	500	37	.065	1.65	2-5 AWG	110	2.48	62.99	7850

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