

## Scope

Firewall® III-J is a jacketed, one conductor power cable 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 or lighting functions.

## Features

- Thermoset insulation 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 termination and corrosion resistance
- All singles pass a wet dielectric (tank) test prior to jacket to verify insulation integrity
- Easy strippability for installation ease

## Performance Standards

- Insulation in accordance with ICEA standard S-66-524
- Jackets in accordance with ICEA standard S-19-81 for heavy-duty chlorosulfonated polyethylene (CSPE)
- 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
- Cable passes ICEA 210,000 BTU/hr vertical tray flame test (Standard T-29-520)
- Cable passes 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

## 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

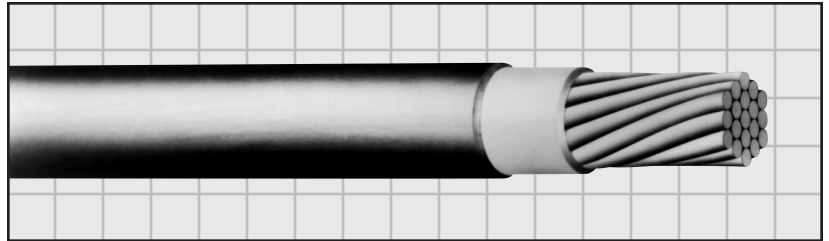
### Jacket:

Black heavy-duty chlorosulfonated polyethylene

\* Sizes 9 AWG and smaller are not recommended for direct burial in earth.

\* 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-J**  
**Power Cable**  
 (XLPE/CSPE)  
 90°C\*, 600 Volt  
 Class 1E Nuclear



Spec. RSS-3-021

Product Code	Conductor Size	Number of Strands	Insulation Thickness		Jacket Thickness (Mils)	Nominal Overall Diameter		Approximate Net Weight (Lbs/M')
			(Inch)	(mm)		(Inch)	(mm)	
P62-3834	14 AWG	7	.030	.76	15	.18	4.57	25
P62-3835	12 AWG	7	.030	.76	15	.20	5.08	35
P62-3922	10 AWG	7	.030	.76	15	.22	5.59	50
P62-3848	8 AWG	7	.045	1.14	15	.28	7.11	80
P62-3847	6 AWG	7	.045	1.14	30	.34	8.64	125
P62-5090	4 AWG	7	.045	1.14	30	.39	9.91	185
P62-3973	2 AWG	7	.045	1.14	30	.44	11.18	265
P62-5091	1 AWG	19	.055	1.40	45	.53	13.46	350
P62-3902	1/0 AWG	19	.055	1.40	45	.57	14.49	425
P62-3901	2/0 AWG	19	.055	1.40	45	.62	15.75	520
P62-5092	3/0 AWG	19	.055	1.40	45	.67	17.02	640
P62-5093	4/0 AWG	19	.055	1.40	45	.72	18.29	785
P62-3954	250 kcmil	37	.065	1.65	65	.83	21.08	960
P62-3846	350 kcmil	37	.065	1.65	65	.94	23.88	1300
P62-3806	500 kcmil	37	.065	1.65	65	1.07	27.18	1800
P62-5094	750 kcmil	61	.080	2.03	65	1.28	32.51	2650
P62-5580	1000 kcmil	61	.080	2.03	65	1.43	36.32	3490

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