

Firewall® SR

Power Cable

(Silicone Rubber)

125°C, 600 Volt
Class 1E Nuclear

Spec. RSS-9-008

Scope

Firewall® SR one conductor power cable is a silicone rubber insulated construction specifically designed for high temperature applications within nuclear generating facilities. It is intended for use in harsh and

demanding environments where temperature extremes preclude the use of standard cables. It may be installed in trays, ducts, conduits or in confined spaces such as equipment housings.

Features

- Nuclear qualified with a minimum 40-year thermal life expectancy at 125°C
- Radiation resistant (up to 200 megarads)
- Flame retardant
- Extremely flexible for installation ease
- Excellent circuit integrity during flame conditions
- Full traceability
- Easy strippability for termination ease
- Tin-coated copper conductors for improved terminations, corrosion resistance and temperature endurance
- All singles pass a wet dielectric (tank) test prior to braid covering to verify electrical integrity
- All cables have printed sequential footage markers for improved inventory control

Performance Standards

- Silicone rubber insulation in accordance with ICEA Standard S-19-81
- Class 1E qualified in accordance with IEEE-383 1974 and IEEE-323 (Rockbestos Report QR-8802)
- Cable passes IEEE-383 1974 70,000 BTU/hr vertical tray flame test as modified by NRC Reg. Guide 1.131
- Quality assurance program in accordance with 10 CFR 50 Appendix B
- Cable passes ICEA 210,000 BTU/hr vertical tray flame test (Standard T-29-520)
- Single conductors pass the vertical flame test specified in IEEE-383 1974 para. 2.5.6 (ICEA S-19-81 Section 6.19.6)

Construction

Conductor:

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

Insulation:

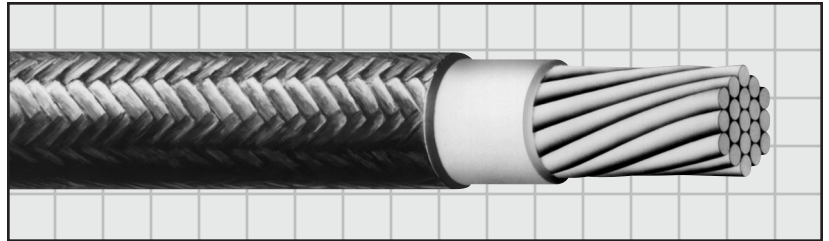
Proprietary heat, moisture and radiation resistant silicone rubber

Overall Covering:

Rockhide® braid* with high temperature finish

* Rockhide® is a proprietary blend of aramid and other high temperature synthetic fibers.

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Product Code	Conductor Size	Number of Strands	Insulation Thickness		Braid Thickness (Mils)	Nominal Overall Diameter		Approximate Net Weight (Lbs/M')
			(Inch)	(mm)		(Inch)	(mm)	
P40-3063	14 AWG	7	.045	1.14	35	.24	6.10	30
P40-3064	12 AWG	7	.045	1.14	35	.26	6.60	40
P40-3065	10 AWG	7	.045	1.14	40	.29	7.34	55
P40-3013	8 AWG	7	.060	1.52	40	.35	8.89	85
P40-3014	6 AWG	7	.060	1.52	40	.39	9.91	120
P40-3015	4 AWG	7	.060	1.52	40	.44	11.18	175
P40-3016	2 AWG	7	.060	1.52	40	.49	12.45	260
P40-3017	1 AWG	19	.080	2.03	40	.58	14.73	340
P40-3018	1/0 AWG	19	.080	2.03	40	.61	15.49	410
P40-3019	2/0 AWG	19	.080	2.03	40	.66	16.76	505
P40-3020	3/0 AWG	19	.080	2.03	40	.71	18.03	625
P40-3021	4/0 AWG	19	.080	2.03	40	.77	19.56	770
P40-3022	250 kcmil	37	.095	2.41	40	.84	21.34	920
P40-3023	350 kcmil	37	.095	2.41	40	.95	24.13	1250
P40-3024	500 kcmil	37	.095	2.41	40	1.08	26.92	1745
P40-3025	750 kcmil	61	.110	2.79	40	1.29	32.77	2595
P40-3026	1000 kcmil	61	.110	2.79	40	1.44	36.58	3405