



RCC-E K1 / IEEE 1E nuclear LV cable

74C068 SH P K1 NA

Nuclear K1 Class 1E LV Power Cable

0.6/1 kV RCC-E K1 / Class 1E LOCA-qualified halogen-free nuclear containment power cable



RCC-E K1 & IEEE Class 1E

0.6/1 kV · 60-Year Design Life

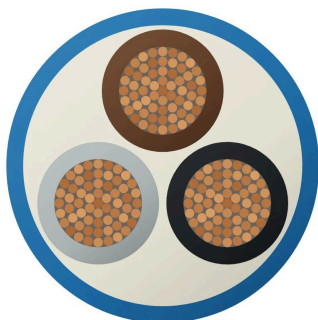
LOCA + 2,100 kGy Radiation

Application

Nuclear safety-related Class 1E / K1 low-voltage power cable (74C068 SH P K1 NA) qualified to RCC-E, EDF CST 74C068 and IEC 60780-323 for 60-year design life inside PWR/EPR reactor containment buildings under cumulative 2.1 MGy gamma irradiation and.

Typical uses: PWR & EPR Nuclear Reactor Containment (K1), Emergency Core Cooling Systems (ECCS), Containment Isolation Valve Actuators, Nuclear Fuel Building & Radwaste Galleries

Construction



Cross-section, not to scale

- 1 Stranded annealed bare copper (Class 2)
- 2 Nuclear K1 radiation-resistant cross-linked EPR/EPDM
- 3 Halogen-free fire-barrier inner bedding
- 4 Cross-linked Sans Halogène (SH) K1 outer sheath

Technical data

Typical values

Rated voltage (U_0/U)	0.6/1 kV AC ($U_{max} = 1.2$ kV AC / 1.5 kV DC)	Routine AC test voltage	3.5 kV AC rms for 5 minutes
Insulation resistance during LOCA peak	≥ 1.0 M Ω -km at +175 °C saturated steam under 1,000 V energisation	Normal continuous conductor temp.	+90 °C (qualified for 60-year service life at +55 °C containment ambient)
LOCA / HELB accident peak temperature	+175 °C to +200 °C steam peak · +250 °C short-circuit (5 s)	Minimum bending radius	8 × OD (fixed unarmoured NA) · 12 × OD (during pulling)
Post-LOCA mandrel bend test	Withstands 2.5 kV AC in water after 40 × OD coiled LOCA exposure	Cumulative gamma radiation qualification	$\geq 2,100$ kGy (850 kGy 60-yr aging + 1,250 kGy accident dose)
Fire & halogen-free performance	NF C 32-070 C1, IEC 60332-3-22 Cat A, IEC 60754-1/2 & IEC 61034-2	Standards	EDF CST 74C068, AFCEN RCC-E (K1), IEC 60780-323, IEEE 323 & IEEE 383

Sizes

12 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Configuration	Voltage	Outer $\varnothing \approx$ mm	Copper kg/km	Weight $\approx$ kg/km	In air 30 °C A	Min. bend R mm
Multi-Core 0.6/1 kV K1 Containment Power Feeders (74C068 SH P K1 NA) 9 sizes							
☐ 74C068 SH P K1 NA 2×2.5	2×2.5 mm ²	0.6/1 kV	12.0	48	210	32	96
☐ 74C068 SH P K1 NA 3G2.5	3G2.5 mm ²	0.6/1 kV	12.6	72	238	28	101
☐ 74C068 SH P K1 NA 3G4	3G4 mm ²	0.6/1 kV	13.8	115	302	37	110
☐ 74C068 SH P K1 NA 3G6	3G6 mm ²	0.6/1 kV	15.1	173	385	48	121
☐ 74C068 SH P K1 NA 3G10	3G10 mm ²	0.6/1 kV	17.4	288	540	66	139
☐ 74C068 SH P K1 NA 3G16	3G16 mm ²	0.6/1 kV	19.8	461	760	88	158
☐ 74C068 SH P K1 NA 3×25	3×25 mm ²	0.6/1 kV	23.4	720	1,120	117	187
☐ 74C068 SH P K1 NA 3×50	3×50 mm ²	0.6/1 kV	28.6	1,440	1,890	177	229
☐ 74C068 SH P K1 NA 3×95	3×95 mm ²	0.6/1 kV	36.2	2,736	3,280	268	290
Single-Core 0.6/1 kV K1 High-Current Motor & Bus Feeders 3 sizes							
☐ 74C068 SH P K1 NA 1×120	1×120 mm ²	0.6/1 kV	21.8	1,152	1,460	345	174
☐ 74C068 SH P K1 NA 1×185	1×185 mm ²	0.6/1 kV	25.6	1,776	2,140	450	205
☐ 74C068 SH P K1 NA 1×240	1×240 mm ²	0.6/1 kV	28.8	2,304	2,720	535	230

– Screen-armoured (74C068 SH P K1 AR) and control/instrumentation (74C068 SH C / SH M K1) executions are also supplied.

Standards and approvals

- ✓ AFCEN RCC-E Category K1 & EDF CST 74C068 Qualified
- ✓ IEC 60780-323 & IEEE 323 / IEEE 383 Class 1E
- ✓ NF C 32-070 C1 & IEC 60332-3-22 Cat A

Certifications



Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone

+86 185 9591 3361

Email

info@tebaoflex.com

Web

tebaoflex.com/cables/74c068-sh-p-k1-na-nuclear-k1-class-1e-lv-power-cable



Typical values for this cable type, based on EDF CST 74C068 / RCC-E K1 / IEC 60780-323 / IEEE 323 & 383. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.