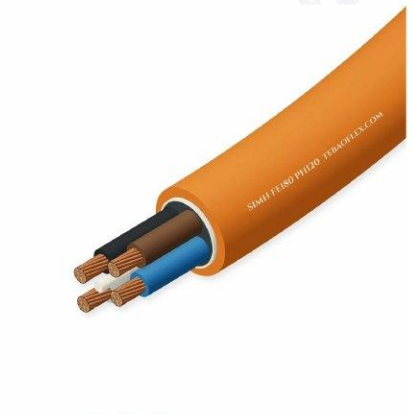
FE180 / PH120 fire-resistant safety cables

SIMH FE180 / PH120

0.6/1 kV Fire-Resistant Power Cable

IEC 60331 180-min & EN 50200 PH120 halogen-free silicone/LSZH fire cable



IEC 60331-21 (FE180) | 0.6/1 kV · +90 °C | LSZH Halogen-Free

Application

SIMH FE180 / PH120 combines bare copper conductors, ceramifying fire-barrier silicone insulation, and a safety-orange halogen-free LSZH outer sheath to sustain 180 minutes of circuit integrity in direct flame.

Typical uses: Hospitals, airports & high-rise towers, Road/rail tunnels & underground metro stations, Emergency sprinkler pumps & smoke-extraction fans, Fire-alarm, voice-evacuation & safety panels

Construction





Cross-section, not to scale

1	Conductor	IEC 60228 Class 2 stranded bare annealed copper · IEC 60228 Class 2
2	Dielectric / core insulation	Ceramifying halogen-free fire-barrier silicone rubber · IEC 60331-21 (FE180)
3	Core assembly & separator	Concentric cabled core assembly with low-friction fleece/polyester separator tape · IEC 60331-21 (FE180)
4	Outer sheath	Safety-orange flame-retardant halogen-free LSZH outer sheath · 180 min Circuit Integrity

Technical data

Typical values

Rated voltage	0.6/1 kV	Test voltage	4 kV AC
Conductor	Bare Cu · Cl.2	Insulation	Ceramifying halogen-free fire-barrier
Impedance / insulation	≥ 1,000 MΩ·km at 20 °C	Temp. range (fixed)	-40 °C to +90 °C
Temp. range (flexing)	-5 °C to +90 °C	Peak / short-circuit	+160 °C (5 s)
Min. bending radius	12 × OD (fixed)	Flame / fire rating	180 min Circuit Integrity
Thermal / chemical	IEC 60754-1/2 Halogen-Free	Mechanical / special	IEC 61034 Low Smoke
Outer finish	Safety-orange flame-retardant		

Sizes

9 standard constructions

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

Cores × mm²	Outer Ø ≈ mm	Max. R20 Ω/km	Metal index kg/km	Weight ≈ kg/km	Min. bend R 12×D mm
☐ 3G1.5 mm²	10.6	12.10	43	166	127
☐ 4G1.5 mm²	11.4	12.10	58	204	137
☐ 5G1.5 mm²	12.4	12.10	72	246	149
☐ 4G2.5 mm²	12.8	7.41	96	290	154
☐ 5G2.5 mm²	13.8	7.41	120	349	166
☐ 4G4 mm²	14.4	4.61	154	414	173
☐ 4G6 mm²	15.8	3.08	230	563	190
☐ 4G10 mm²	18.2	1.83	384	862	218
☐ 4G16 mm²	20.8	1.15	614	1,288	250

- Conductor DC resistance R20 at 20 °C per IEC 60228 Class 2.
- Minimum bending radius calculated at 12 × nominal outer diameter (OD). Custom core counts and lengths available on request.

Standards and approvals

- IEC 60331-21 (FE180)
- EN 50200 (PH120)
- DIN 4102-12 (E30–E90)
- EN 10204 3.1 Factory Test Certificate
- CE, RoHS 2 (2011/65/EU) & REACH

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/simh-fe180-ph120-0-6-1kv-fire-resistant-cable

Typical values for this cable type, based on IEC 60331-21 (FE180) · EN 50200 (PH120) · DIN 4102-12 (E30–E90). Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.