High-current water-cooled, furnace & shunt cables

Silicone HC 1.8/3 kV Cable

Silicone HC 1.8/3 kV 180 °C High-Current Flexible Cable

1.8/3 kV heavy-gauge 180 °C halogen-free silicone single-core power lead

EN 50382 (ref.) | 1.8/3 kV · +180 °C | Air-Cooled HC



Application

Silicone HC 1.8/3 kV pairs Class 6 flexible bare copper (50–400 mm²) with thick corona-resistant black 180 °C halogen-free silicone rubber insulation for traction inverters, induction drives, and hot HV switchgear.

Typical uses: Power transformers, switchgear & busduct joints, Resistance welding guns & heavy fabrication shops, BESS battery racks, EV test benches & rectifiers, Steel mills, foundries & high-current power bays

Construction





Cross-section, not to scale

1	**Conductor**	IEC 60228 Class 6 extra-flexible bare annealed copper · IEC 60228 Class 6
2	**Heavy-wall extruded insulation**	Heavy-wall black 180 °C halogen-free silicone rubber insulation · EN 50382 (ref.)

Technical data

Typical values

Rated voltage	1.8/3 kV	**Test voltage**	6.5 kV AC
Conductor	Bare Cu · Cl.6	**Core / dielectric**	Heavy-wall black 180 °C halogen-free
Impedance / insulation	≥ 1,000 MΩ·km at 20 °C	**Temp. range (fixed)**	-60 °C to +180 °C
Temp. range (flexing)	-35 °C to +180 °C	**Peak / short-circuit**	+250 °C (short-term)
Min. bending radius	8 × OD	**Primary performance**	1.8/3 kV Rated Voltage
Environment / duty	180 °C Halogen-Free Silicone	**Mechanical / special**	Ozone & Cold-Flex -60 °C
Outer finish	Black 1.8/3 kV ozone- & heat-resistant		

Sizes

9 standard constructions

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

	Cross-section mm²	Outer Ø ≈ mm	Max. R20 Ω/km	Copper index kg/km	Weight ≈ kg/km	Min. bend R 8×D mm
☐	1×50 mm²	18.9	0.386	480	866	151
☐	1×70 mm²	20.7	0.272	672	1,166	166
☐	1×95 mm²	22.6	0.206	912	1,536	181
☐	1×120 mm²	24.3	0.161	1,152	1,904	194
☐	1×150 mm²	26.1	0.129	1,440	2,344	209
☐	1×185 mm²	28.0	0.106	1,776	2,854	224
☐	1×240 mm²	30.7	0.080	2,304	3,654	246
☐	1×300 mm²	33.2	0.064	2,880	4,518	266
☐	1×400 mm²	37.0	0.049	3,840	5,959	296

- Conductor DC resistance R20 at 20 °C per IEC 60228 Class 6.
- Minimum bending radius calculated at 8 × nominal outer diameter (OD). Custom terminations available on request.

Standards and approvals

- EN 50382 (ref.)
- DIN VDE 0250
- IEC 60228 Class 6
- 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/silicone-hc-1-8-3kv-180c-high-current-cable

Typical values for this cable type, based on EN 50382 (ref.) · DIN VDE 0250 · IEC 60228 Class 6. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.