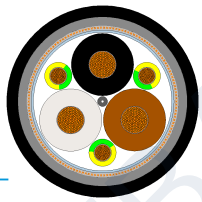
TEBAOFLEX CABLE

DATA SHEET

Mining&Industrialcable

(N)SSHCOEU (-45 °C)

0.6/1 kV cable for variable frequency converter



OPENCAST | CABLES FOR SEMI-FLEXIBLE INSTALLATION

APPLICATION

Suitable for fixed installation and flexible operation as motor power supply cable for frequency converter controlled drives in mining, construction sites and similar applications with heavy mechanical stresses.

CABLE DESIGN

Component	Description
Conductor	Finely stranded tinned copper conductor, class 5
Insulation	EPR compound, type 3GI3
Core identification	Natural coloring with black figures
Core arrangement	Three power cores laid up with protective earth conductors split into three outer interstices
Screen	EMC optimized concentric braid of tinned copper wires
Inner sheath	Vulcanized EPR rubber compound, type GM1B
Outer sheath	Synthetic elastomer compound e.g. CR, compound type 5GM5, black

CHARACTERISTICS

- Suitable for fixed installation and flexible operation as motor power supply cable.
- Designed for frequency converter controlled drives in mining and construction applications.
- Suitable for heavy mechanical stresses and material handling equipment.
- Can be applied in water up to 40 °C, approximately up to 10 m depth.

OPERATING CHARACTERISTICS

Parameter	Value
Standard	Based on DIN VDE 0250 part 812
Certifications / approvals	MSHA ; EAC certificate
Rated voltage	Uo/U = 0.6/1 kV, also permitted for Uo/U = 640/1140 V
Max. operating voltage AC	0.7/1.2 kV
Max. operating voltage DC	0.9/1.8 kV
AC test voltage - main cores	5 kV, 5 min.
Fire performance	IEC 60332-1-2
Oil resistance	IEC 60811-404
Weather resistance	Outdoor and indoor use, resistant to ozone and moisture
Thermal ratings	Conductor 90 °C; short circuit 250 °C
Ambient temperature	Fixed -60 °C to +90 °C; fully flexible -45 °C to +90 °C
Mechanical ratings	Tensile load 15 N/mm2; torsional stress +/- 25 °/m; bending radii acc. to DIN VDE 0298 part 3

TECHNICAL DATA

DIMENSIONS AND ELECTRICAL CHARACTERISTICS

Values are technical parameters only. Cable dimensions may vary due to manufacturing tolerances.

Cross-section mm2	Conductor diameter max mm	OD min mm	OD max mm	Weight kg/km	Tensile force N	Resistance at 20 °C Ω/km	Capacitance µF/km	Inductance mH/km	Current capacity A	Short circuit kA
3 x 16 + 3 x 2.5	5.4	24.4	27.4	1200	720	1.24	0.42	0.26	99	2.29
3 x 25 + 3 x 4	6.3	28.2	31.2	1700	1125	0.795	0.42	0.26	131	3.58
3 x 35 + 3 x 16/3	7.5	30.5	33.5	2200	1575	0.565	0.49	0.25	162	5.01
3 x 50 + 3 x 25/3	8.9	36.0	39.0	2810	2250	0.393	0.51	0.25	202	7.15
3 x 70 + 3 x 35/3	10.6	41.2	44.2	3870	3150	0.277	0.59	0.24	250	10.01
3 x 95 + 3 x 50/3	12.1	45.7	48.7	4850	4275	0.210	0.60	0.24	301	13.59
3 x 120 + 3 x 70/3	14.1	48.7	52.7	5800	5400	0.164	0.69	0.23	352	17.16
3 x 150 + 3 x 70/3	16.0	55.7	59.7	7350	6750	0.132	0.70	0.23	404	21.45
3 x 185 + 3 x 95/3	17.8	60.4	64.4	8640	8325	0.108	0.71	0.23	461	26.46
3 x 240 + 3 x 120/3	20.2	65.0	71.0	11000	10800	0.0817	0.73	0.23	540	34.32

NOTES

- Current carrying capacity values are nominal for rubber cables laid on a surface at 30 °C ambient temperature.
- For derating factors, refer to the applicable technical appendix and VDE 0298-4 table 15.
- Values are technical parameters only and may vary due to manufacturing tolerances.

CERTIFICATIONS