



TEBAOFLEX CABLE

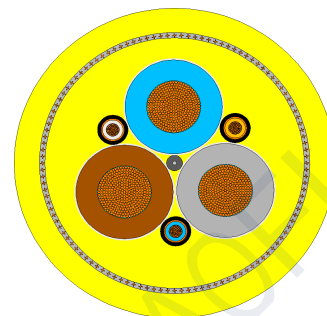
DATA SHEET

Mining&Industrial cable

NSSHKCGEOEU

0.6/1 kV coal cutter cable for chain operation

Flexible shearer cable for underground mobile machines under very high mechanical loads.



APPLICATION

For connection of mobile machines under very high mechanical loads, predominantly for underground mining applications such as coal-cutting machines. Particularly suitable for extreme bending loads under low tensile stress when protected against high tensile forces by the cable chain.

CONSTRUCTION

Component	Description
Conductor	Finely stranded tinned copper wires, special flexible design
PE conductor	Distributed as a spinning of tinned copper wires and a conductive tape
Insulation	EPR-3GI3 rubber compound, coloured
Core identification	Main cores black, grey and brown; control cores blue
Pilot conductor	Pilot cores with copper / steel conductors capable of expansion and compression, EPR insulation
Core arrangement	Cores cabled around semi-conductive cradle
Inner sheath	Semi-conductive rubber
Torsion protection	Polyester anti-torsion braid
Outer sheath	Rubber compound type 5GM5, yellow

OPERATING CHARACTERISTICS

Property	Value
Rated voltage Uo/U	0.6/1 kV (600/1000 V)
Max. permissible operating voltage AC	0.7/1.2 kV
Max. permissible operating voltage DC	0.9/1.8 kV
AC test voltage	3 kV
AC test voltage - control cores	2 kV
Max. conductor operating temperature	+90 deg C
Max. conductor short-circuit temperature	+250 deg C
Fixed ambient temperature	-40 deg C to +90 deg C
Fully flexible ambient temperature	-20 deg C to +90 deg C
Minimum bending radius	5 x D at max. 15 N/mm ² tensile load; 2.3 x D at max. 5 N/mm ² tensile load
Standard	Based on DIN VDE 0250 part 812

TECHNICAL DATA - DIMENSIONS AND MECHANICAL DATA

Number of cores x cross-section	Conductor diameter max. (mm)	Outer diameter min. (mm)	Outer diameter max. (mm)	Weight approx. (kg/km)	Tensile force max. (N)
3 x 25 + 3 x (1.5 ST + 16/3)	7	36	40	2790	1125
3 x 35 + 3 x (1.5 ST + 16/3)	8.2	38	42	2620	1575
3 x 50 + 3 x (1.5 ST + 25/3)	10.2	43	48	3600	2250
3 x 70 + 3 x (1.5 ST + 35/3)	12.2	44	49	4180	3150
3 x 95 + 3 x (1.5 ST + 50/3)	13.2	53	57	5490	4275
3 x 120 + 3 x (1.5 ST + 70/3)	15.2	58	63	8300	5400
3 x 150 + 3 x (1.5 ST + 70/3)	17.1	62	68	9300	6750

ELECTRICAL DATA

Number of cores x cross-section	Conductor resistance at 20 deg C max. (Ohm/km)	Operating capacitance (uF/km)	Inductance nom. (mH/km)	Current carrying capacity (A)	Short-circuit current conductor (kA)
3 x 25 + 3 x (1.5 ST + 16/3)	0.795	0.52	0.29	131	3.58
3 x 35 + 3 x (1.5 ST + 16/3)	0.565	0.59	0.28	162	5.01
3 x 50 + 3 x (1.5 ST + 25/3)	0.393	0.62	0.27	202	7.15
3 x 70 + 3 x (1.5 ST + 35/3)	0.277	0.72	0.26	250	10.01
3 x 95 + 3 x (1.5 ST + 50/3)	0.21	0.69	0.26	301	13.59
3 x 120 + 3 x (1.5 ST + 70/3)	0.164	0.86	0.25	352	17.16
3 x 150 + 3 x (1.5 ST + 70/3)	0.132	0.78	0.25	404	21.45

Current carrying capacity is nominal for rubber cables laid on a surface at 30 deg C ambient temperature; derating factors according to the applicable technical appendix.

CERTIFICATIONS



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