



TEBAOFLEX CABLE

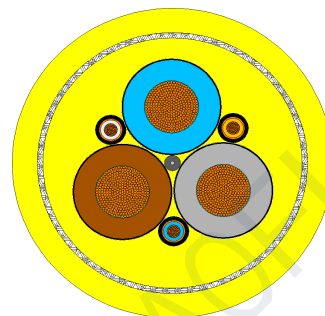
DATA SHEET

Mining&Industrial cable

NSSHKCGEOEU

0.6/1 kV coal cutter cable for trailing operations

Flexible underground trailing cable for mobile equipment under very high mechanical loads.



APPLICATION

Used as power supply connection cable for mobile equipment in underground machine applications such as coal shearers, roadheaders, tunnel boring machines and scoops. Designed for free trailing operation and suitable for considerable trailing distances behind the machine during operation.

CONSTRUCTION

Component	Description
Conductor	Very finely stranded tinned copper conductor, class FS
PE / control conductor	Double-concentric control / PE wire spinning in the outer interstice
Insulation	EPR compound type 3G13
Core identification	Main cores black, grey and brown; control cores blue
Core arrangement	Three main conductors laid-up with double-concentric control / PE conductor elements in the outer interstice
Inner sheath	Vulcanized EPR rubber inner sheath, compound type GM1B
Armouring	Braid of steel strands in a vulcanized bond between inner and outer sheath
Outer sheath	Synthetic elastomer compound type 5GM5, yellow

OPERATING CHARACTERISTICS

Property	Value
Rated voltage U ₀ /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 breaking load of steel braid	45 kN
Max. tensile load on conductor	40 N/mm ²
Torsional stress	+/- 10 deg/m
Travel speed	150 m/min
Standard	DIN VDE 0250-812

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 STKON + 16/3 KON)	7.1	39.2	42.2	2700	3000
3 x 35 + 3 x (1.5 STKON + 16/3 KON)	8.4	40.8	43.8	3100	4200
3 x 50 + 3 x (1.5 STKON + 25/3 KON)	10.1	46.2	49.2	4000	6000
3 x 70 + 3 x (1.5 STKON + 35/3 KON)	11.9	49.6	53.6	5100	8400
3 x 95 + 3 x (1.5 STKON + 50/3 KON)	14	56.8	60.8	6700	11400
3 x 120 + 3 x (1.5 STKON + 70/3 KON)	15.5	60.6	64.6	8000	14400
3 x 150 + 3 x (1.5 STKON + 70/3 KON)	17.6	67	71	9620	18000
3 x 185 + 3 x (1.5 STKON + 95/3 KON)	19.1	72	76	11500	22200
3 x 240 + 3 x (1.5 STKON + 120/3 KON)	22	80.4	85.4	14600	28800
3 x 300 + 3 x (1.5 STKON + 150/3 KON)	24.8	89.1	94.1	18700	36000

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 STKON + 16/3 KON)	0.795	0.37	0.33	131	3.58
3 x 35 + 3 x (1.5 STKON + 16/3 KON)	0.565	0.42	0.30	162	5.01
3 x 50 + 3 x (1.5 STKON + 25/3 KON)	0.393	0.45	0.28	202	7.15
3 x 70 + 3 x (1.5 STKON + 35/3 KON)	0.277	0.52	0.27	250	10.01
3 x 95 + 3 x (1.5 STKON + 50/3 KON)	0.21	0.55	0.27	301	13.59
3 x 120 + 3 x (1.5 STKON + 70/3 KON)	0.164	0.59	0.26	352	17.16
3 x 150 + 3 x (1.5 STKON + 70/3 KON)	0.132	0.61	0.26	404	21.45
3 x 185 + 3 x (1.5 STKON + 95/3 KON)	0.108	0.63	0.26	461	26.46
3 x 240 + 3 x (1.5 STKON + 120/3 KON)	0.0817	0.67	0.25	540	34.32
3 x 300 + 3 x (1.5 STKON + 150/3 KON)	0.0654	0.70	0.25	620	42.90

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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