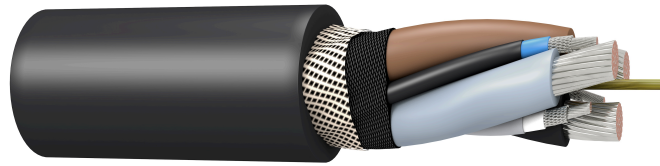


TENAX-LK 1kV: Loader Cable with special pilot cores, twist protection and central strain relief element



Application

These cables are intended for mining applications under very high mechanical loads, e.g. fast moving machines like shuttle cars etc. where frequent winding and unwinding is required during operation, in particular with simultaneous tensile strain and/or torsion stress and/or forced guidance of the cable.

Global data

Type designation	NTSKCGEWOEU
Standard	DIN VDE 0250-813
Certifications / Approvals	Fire Certificate of Russian Federation TR-Certificate GOST K GOST B

Design features

Conductor	Tinned copper, extra finely stranded (class 5), according to DIN VDE 0295
Insulation	Rubber compound type 3GI3 acc. to DIN VDE 0207 part 20 Separator: Polyester tape
Special Pilot / PE element	Copper and steel conductor capable of expansion and compression covert with EPR insulation. Earth core as a spinning of tinned copper bunches covered with semi-conductive tape.
Core identification	Core colors: Brown, Black, Grey Control core: Blue
Core arrangement	Cores laid up around conductive central cradle separator with aramid rope
Inner sheath	Semi conductive inner sheath
Reinforcement	Extremely tear-resistant reinforcing tape, which prevents sheath movement.
Outer sheath	Outer sheath of black chlorinated rubber compound 5GM5, abrasion and tear-resistant, oil-resistant and flame retardant

Electrical parameters

Rated voltage	0.6/1 kV (600/1000V)
Maximum permissible operating voltage AC	0.7/1.2 kV
Maximum permissible operating voltage DC	0.9/1.8 kV
AC test voltage	4 kV

Chemical parameters

Resistance to fire	EN 60332-1-2, IEC 60332-1-2
Resistance to oil	EN 60811-404, IEC 60811-404
Weather resistance	Unrestricted use outdoors and indoors, resistant to ozone, UV and moisture

Thermal parameters

Max. permissible temperature at conductor	90 °C
Ambient temperature for fix installation min.	-40 °C
Ambient temperature for fix installation max.	80 °C
Ambient temp. in fully flex. operation min.	-25 °C
Ambient temp. in fully flex. operation max.	60 °C

Mechanical parameters

Max. tensile load of cable	30 N/mm ²
Torsional stress	100 °/m
Bending radii min.	Acc. to DIN VDE 0298 part 3
Travel speed	max. 160 m/min

Number of cores x cross section	Part number	Conductor diameter max. mm	Outer diameter min. mm	Outer diameter max. mm	Net weight approx. kg/km	Permissible tensile force max. N	Conductor resistance at 20°C max. Ω/km	Nom. operating capacitance μF/km	Inductance nom. mH/km	Current carrying capacity (1) A	Short Circuit Current (conductor) kA
3x16 + 3x(1,5ST +16/3)	20074226	5	30.1	32.6	1525	720	1.24	1.5	0.23	99	1.9
3x25 + 3x(1,5ST +16/3)		6.2	37	39.5	2150	1125	0.8	1.56	0.22	131	3
3x35 + 3x(1,5ST +25/3)		7.5	39.8	42.3	2575	1575	0.565	1.67	0.22	162	4.27
3x50 + 3x(1,5ST +25/3)		9	42.9	45.4	3150	2250	0.393	1.79	0.22	202	6.1
3x70 + 3x(1,5ST +35/3)		10.6	46.4	48.9	4000	3150	0.277	1.92	0.22	250	9
3x95 + 3x(1,5ST +50/3)		12.6	53.2	56.7	5525	4275	0.21	1.84	0.22	301	13
3x16 + 2x10 + 1x1,5ST	20135821	5	32	36	1900	720	1.24	1.36	0.23	99	1.9
3 x 25+2x10+1x1,5ST		6.2	36	40	2350	1125	0.8	1.52	0.22	131	3