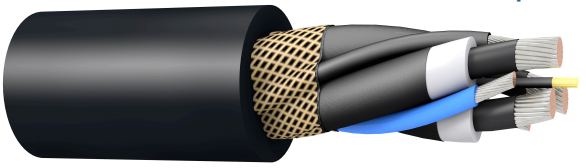
TENAX - SAS 6kV: Power supply cable for trailing applications cold flexible version up to -50°C



Application

As power supply cable to large mobile equipment in mines. Trailing cable for use with shovels and draglines in trailing and reeling applications. The outer sheath is extremly robust and tough against abrasion and tearing, fully flexible oeration down to -50°C,

Global data

Brand	TENAX-SAS
Type designation	NTSCGEWOEU
Standard	DIN VDE 0250-813
Certifications / Approvals	Fire Certificate of Russian Federation GOST K GOST B

Design features

Conductor	Tinned copper, finely stranded (class 5), according to DIN VDE 0295
PE-Conductor	Tinned copper, finely stranded (class 5) with semi conductive special rubber compound
Insulation	Rubber, Compound type: EPR 3GI3
Electrical field control	Inner and outer layer of semiconductive rubber compound, cold strippable outer layer
Core arrangement	Cores laid up around conductive central cradle separator with aramid rope in the centre
Inner sheath	Rubber sheath, Special compound: 5GM3 (mechanical properties)
Pilot conductor	Tinned copper, finely stranded (class 5), EPR-Insulation
Outer sheath	Rubber, compound type: better 5GM5, acc. to DIN VDE 0207 part 21; Sheath color: Black

Electrical parameters

Rated voltage	3.6/6 kV
Maximum permissible operating voltage AC	4.2/7.2 kV
Maximum permissible operating voltage DC	5.4/10.8 kV
AC test voltage	11 kV

Chemical parameters

Resistance to fire	EN 60322-1-2, IEC 60322-1-2
Resistance to oil	EN 60811-404, IEC 60811-404
Weather resistance	Unrestricted use outdoors and indoors, resistant to ozone and moisture

Thermal parameters

Max. permissible temperature at conductor	90 °C
Max. short circuit temperature of the conductor	250 °C
Ambient temperature for fix installation min.	-50 °C
Ambient temperature for fix installation max.	80 °C
Ambient temp. in fully flex. operation min.	-50 °C
Ambient temp. in fully flex. operation max.	60 °C

Mechanical parameters

Max. tensile load of cable	25 N/mm²
Bending radii min.	Acc. to DIN VDE 0298 part 3
Minimum distance with S-type directional changes	20 x D

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
3x35+3x25/3		6.2	44.4	47.9	2750	1575	0.565	0.23	0.36	162	5
3x35+2x16+16	20076465	7.5	47.2	50.7	3225	1575	0.565	0.26	0.34	162	5
3x50+3x25/3		9	50.3	54.8	3850	2250	0.393	0.29	0.32	202	7.2
3x70+3x35/3		10.6	55.6	60.1	4900	3150	0.277	0.33	0.31	250	10
3x95+3x50/3		12.6	59.9	64.4	5800	4275	0.21	0.37	0.29	301	13.6
3x120+3x70/3		14.8	66.5	71	7250	5400	0.164	0.42	0.28	352	17.2
3x150+3x70/3		16	68.9	73.4	8150	6750	0.132	0.45	0.27	404	21.5
3x185+3x95/3		17.7	72.7	77.2	9600	8325	0.108	0.48	0.27	461	26.5
3x240+3x120/3		20.3	80.1	84.6	12050	10800	0.0817	0.54	0.26	540	34.3
special designs											
3x16+2x10+1x10	20095522	5	40.5	44.5	1923	720	1.24	0.2	0.39	99	2.3
3x16+3x16/3		5	40.5	44.5	1923	720	1.24	0.2	0.39	99	2.3
3x16+2x16+16		5	40.5	44.5	2469	720	1.24	0.2	0.39	99	2.3
3x25+3x16/3		6.2	43.5	47.5	2432	1125	0.8	0.23	0.36	131	3.6
3x25+2x16+16	20092078	6.2	43.5	47.5	2886	1125	0.8	0.23	0.36	131	3.6
3x50+2x16+16	20114035	9	50.3	54.8	4108	2250	0.393	0.29	0.32	202	7.2
3x70+2x25+16	20076466	10.6	55.6	60.1	5171	3150	0.277	0.34	0.3	250	10
3x95+2x25+16		12.6	59.9	64.4	6076	4275	0.21	0.37	0.29	301	13.6
3x120+2x35+16	20087396	14.8	66.5	71	6792	5400	0.164	0.41	0.28	352	17.2
3x150+2x35+16		16	69.8	73.4	8456	6750	0.132	0.44	0.27	404	21.5
3x185+2x50+16		17.7	72.7	77.2	9955	8325	0.108	0.48	0.27	461	26.5
3x240+2x70+16		20.3	80.1	84.6	12618	10800	0.0817	0.54	0.26	540	34.3
3x300+3x150/3		31.3	84	89	14142	13500	0.0654	0.78	0.24	620	42.9
3x300+2x95+16		31.3	84	89	15075	13500	0.0654	0.78	0.24	620	42.9