



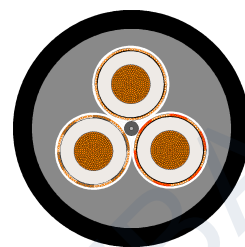
TEBAOFLEX CABLE

DATA SHEET

Mining&Industrial cable

(N)TSCGECEWÖU

3.6/6 kV and 6/10 kV submersible cable



APPLICATION

Flexible supply cable for permanent immersion in salty and brackish water up to 300 metres, under high mechanical stress and abrasion. Suitable for pumps, dredgers, floating docks and trailing operations of opencast mining equipment. Designed for indoor and outdoor applications where reliable medium-voltage power supply, water resistance and mechanical durability are required.

CONSTRUCTION

Component	Description
Phase conductor	Class 5 tinned copper conductor
Insulation	Rubber compound
Semi-conductive layers	Semi-conductive tape over the conductor, plus inner and outer semi-conductive rubber layers on the insulation
Protective earth conductor	Individual copper wire braid
Central filler	Rubber compound on a textile polyester support
Inner sheath	EPR rubber compound with waterproofing
Outer sheath	CM rubber compound with waterproofing
Sheath colour	Black

CHARACTERISTICS

- Flexible medium-voltage submersible cable for salty and brackish water.
- Suitable for pumps, dredgers, floating docks and opencast mining equipment.
- Flame retardant according to IEC/EN 60332-1-2.
- Waterproof inner and outer sheaths for permanent immersion up to 300 metres.

OPERATING CHARACTERISTICS

Parameter	Value
Voltage rating U_0/U	3.6/6 kV; 6/10 kV
Test voltage	11 kV for 3.6/6 kV; 17 kV for 6/10 kV
Ambient temperature	Fixed -40 °C to +90 °C; flexed -25 °C to +90 °C
Maximum water temperature	+40 °C
Submersible depth	300 m
Minimum bending radius	6 x overall diameter fixed; 10 x overall diameter flexed

STANDARDS

Parameter	Value
Cable standards	VDE 0250 Part 813, HD 22.16, VDE 0295, EN 60228
Flame retardant	IEC/EN 60332-1-2
Regulatory compliance	RoHS Directive ; REACH EC

PACKING

Standard length cable packing on drums; other packing and delivery forms available on request.

TECHNICAL DATA

DIMENSIONS

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

Voltage kV	Cores	Phase mm2	Earth mm2	Cond. dia. mm	Min OD mm	Max OD mm	Tensile N	Weight kg/km
3.6/6	3+3	25	25/3E	6.8	43.4	45.1	1125	2830
3.6/6	3+3	35	25/3E	7.8	45	46.7	1575	3180
3.6/6	3+3	50	25/3E	9.4	48.1	49.8	2250	3830
3.6/6	3+3	70	35/3E	11.2	53.7	55.5	3150	4960
3.6/6	3+3	95	50/3E	12.7	58.4	60.2	4257	6170
3.6/6	3+3	120	70/3E	14.4	62.9	65.2	5400	7540
3.6/6	3+3	150	70/3E	16.3	69.3	71.7	6750	9050
3.6/6	3+3	185	95/3E	17.6	72.1	74.5	8325	10350
6/10	3+3	25	25/3E	6.8	43.4	45.7	1125	2870
6/10	3+3	35	25/3E	7.8	45	47.3	1575	3220
6/10	3+3	50	25/3E	9.4	48.1	50.4	2250	3870
6/10	3+3	70	35/3E	11.2	53.7	56.1	3150	5000
6/10	3+3	95	50/3E	12.7	58.4	60.8	4257	6210
6/10	3+3	120	70/3E	14.4	62.9	65.9	5400	7580
6/10	3+3	150	70/3E	16.3	69.3	72.4	6750	9090
6/10	3+3	185	95/3E	17.6	72.1	75.2	8325	10390

CURRENT CARRYING CAPACITY

Area mm2	Floor A	Air A	1 layer	2 layer	3 layer	4 layer	5 layer	6 layer	7 layer
25	131	138	105	80	64	55	50	35	29
35	162	170	130	99	79	68	62	44	36
50	202	212	162	123	99	85	77	55	44
70	250	263	200	153	123	105	95	68	55
95	301	316	241	184	147	126	114	81	66
120	352	370	282	215	172	148	134	95	77
150	404	424	323	246	198	170	154	109	89
185	461	484	369	281	226	194	175	124	101

Ambient temperature of 30 °C.

VOLTAGE DROP

Area mm2	PF 0.7	PF 0.8	PF 0.9	PF 1.0
25	1.29	1.45	1.6	1.71
35	0.95	1.06	1.16	1.23
50	0.69	0.77	0.83	0.87
70	0.51	0.56	0.6	0.61
95	0.41	0.45	0.47	0.47
120	0.34	0.36	0.38	0.36
150	0.29	0.31	0.32	0.29
185	0.25	0.27	0.27	0.24

ELECTRICAL DATA

DE-RATING FACTORS

Ambient temp.	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C	65°C	70°C	75°C	80°C
De-rating factor	1.15	1.12	1.08	1.04	1.00	0.96	0.91	0.87	0.82	0.76	0.71	0.65	0.58	0.50	0.41

NOTES

- Current carrying capacity values are stated for the operating conditions shown above.
- Cable dimensions may vary due to manufacturing tolerances.

CERTIFICATIONS



TEBAOFLEX CABLE