

# (N)TSCGEWÖU 3.6/6kV and 6/10kV Cable



Eland Product Group: **A7HB**

## APPLICATION

Flexible cable for fixed distribution lines in mines and alongside material handling equipment. Suitable for indoor and outdoor applications.

## CONSTRUCTION

### Phase Conductor

Class 5 tinned copper conductor according to VDE 0295 (IEC 60228)

### Insulation

Rubber compound Type 3GI3 according to VDE 0207 Part 20

### Semi-Conductive Layers

Semi-conductive tape over the conductor and inner and outer semi-conductive rubber layer on the insulation

### Earth Conductor

Class 5 tinned copper conductor according to VDE 0295 (IEC 60228)

### Central Filler

Semi-conductive compound on a textile polyester support

### Inner Sheath

Rubber compound Type GM1b according to VDE 0207 Part 21

### Outer Sheath

Rubber compound Type 5GM5 according to VDE 0207 Part 21

## CABLE STANDARDS

Generally to VDE 0250 Part 813, VDE 0295, BS EN/IEC 60332-1-2, BS EN/IEC 60811-2-1, HD22.16



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

## CHARACTERISTICS

### Voltage Rating ( $U_0/U$ )

3.6/6kV  
6/10kV

### Test Voltage

3.6/6kV: 11kV  
6/10kV: 17kV

### Maximum Short Circuit Temperature

+250°C

### Ambient Temperature

Fixed: -40°C to +80°C

### Minimum Bending Radius

Fixed: 6 x overall diameter

### Maximum Tensile Load\*

20N/mm<sup>2</sup>

### Sheath Colour

● Red

### Note

\*Referred to the total phase conductors cross section

## DIMENSIONS

ELAND PART NO.	VOLTAGE kV	NO. OF CORES (PHASE + EARTH)	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>		CONDUCTOR DIAMETER mm	MINIMUM OVERALL DIAMETER mm	MAXIMUM OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	MAXIMUM TENSILE LOAD N
			Phase Conductor	Earth Conductor					
A7HB06KV1025RD	3.6/6	3+3	25	25/3	6.8	39.9	41.6	2580	1500
A7HB06KV1035RD	3.6/6	3+3	35	25/3	7.8	42.9	44.6	3080	2100
A7HB06KV1050RD	3.6/6	3+3	50	25/3	9.4	46	47.7	3710	3000
A7HB06KV1070RD	3.6/6	3+3	70	35/3	11.2	49.8	51.6	4670	4200
A7HB06KV1095RD	3.6/6	3+3	95	50/3	12.7	55.8	57.6	5880	5700
A7HB06KV1120RD	3.6/6	3+3	120	70/3	14.4	59.6	61.4	7140	7200
A7HB06KV1150RD	3.6/6	3+3	150	70/3	16.3	66	68.3	8690	9000
A7HB06KV1185RD	3.6/6	3+3	185	95/3	17.6	67.9	70.2	9890	11100
A7HB10KV1025RD	6/10	3+3	25	25/3	6.8	39.9	42.2	2620	1500
A7HB10KV1035RD	6/10	3+3	35	25/3	7.8	42.9	45.2	3120	2100
A7HB10KV1050RD	6/10	3+3	50	25/3	9.4	46	48.3	3750	3000
A7HB10KV1070RD	6/10	3+3	70	35/3	11.2	49.8	52.2	4710	4200
A7HB10KV1095RD	6/10	3+3	95	50/3	12.7	55.8	58.2	5920	5700
A7HB10KV1120RD	6/10	3+3	120	70/3	14.4	59.6	62.1	7180	7200
A7HB10KV1150RD	6/10	3+3	150	70/3	16.3	66	69	8730	9000
A7HB10KV1185RD	6/10	3+3	185	95/3	17.6	67.9	70.9	9930	11100

## ELECTRICAL CHARACTERISTICS

### Current Carrying Capacity

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	LAYING ON THE FLOOR Amps	FREE IN AIR Amps	REELED						
			1 Layer Amps	2 Layer Amps	3 Layer Amps	4 Layer Amps	5 Layer Amps	6 Layer Amps	7 Layer Amps
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

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	POWER FACTOR			
	0.7	0.8	0.9	1
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

## DE-RATING FACTORS

AMBIENT TEMPERATURE	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

The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.