



(N)TSCGEWÖU 3.6/6kV, 6/10kV, 8.7/15kV, 12/20kV 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.

CHARACTERISTICS

Voltage Rating (U₀/U)

3.6/6kV; 6/10kV, 8.7/15kV, 12/20kV

Test Voltage

3.6/6kV: 11kV; 6/10kV: 17kV, 8.7/15kV: 24kV, 12/20kV: 29kV

Maximum Torsional Stress (°/m): ± 25

Maximum Working Speed (m/min): 20

Maximum Short Circuit Temperature: 250°C

Mobile Condition: +25°C to + 80°C

Static Condition: +40°C to + 80°C

Minimum Bending Radius

Fixed: 6 x overall diameter

CONSTRUCTION

Phase Conductor

Class 5 flexible stranded tinned copper

Insulation

Rubber compound

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

Central Filler

Semi-conductive compound on a textile polyester support

Inner Sheath

Rubber compound

Anti-Torsion Braid

Polyester

Outer Sheath

Rubber compound

Sheath Colour

● Yellow

Note:

(N)TSCGEWÖU ATB is available with Anti-Torsion Braid

STANDARDS

VDE 0295, IEC 60228, VDE 0207 Part 20 & 21, VDE 0250 Part 813, VDE 0298 Part 3, IEC 60811-2-1, EN 60228

Flame Retardant according to IEC/EN 60332-1-2

ISO/IEC 17025 LABORATORY TESTED

This product is subject to the Quality Assurance protocols of The Cable Lab®, an ISO/IEC 17025 accredited cable testing laboratory. Testing includes vertical flame, conductor resistance, tensile & elongation, and dimensional consistency, verified to published standards and approved product drawings.



REGULATORY COMPLIANCE

This cable meets the requirements of the RoHS Directive 2011/65/EU. RoHS compliance has been tested and confirmed by The Cable Lab® as meeting the requirements of the BSI RoHS Trusted Kitemark™.





DIMENSIONS

ELAND PART NO.	VOLTAGE kV	NO. OF CORES (PHASE + EARTH)	NOMINAL CROSS SECTIONAL AREA mm ²		CONDUCTOR DIAMETER mm	NOMINAL OVERALL DIAMETER mm	MAXIMUM TENSILE LOAD N	NOMINAL WEIGHT kg/km
			Phase Conductor	Earth Conductor				
A7HB06KV1025RD	3.6/6	3+3	25	25/3	6.9	39.7	1500	2380
A7HB06KV1035RD	3.6/6	3+3	35	25/3	7.8	43.7	2100	2920
A7HB06KV1050RD	3.6/6	3+3	50	25/3	9.3	46.8	3000	3520
A7HB06KV1070RD	3.6/6	3+3	70	35/3	11.1	50.7	4200	4430
A7HB06KV1095RD	3.6/6	3+3	95	50/3	12.7	56.7	5700	5580
A7HB06KV1120RD	3.6/6	3+3	120	70/3	14.5	60.5	7200	6770
A7HB06KV1150RD	3.6/6	3+3	150	70/3	16.7	67.15	9000	8260
A7HB06KV1185RD	3.6/6	3+3	185	95/3	17.6	69	11100	9400
A7HB10KV1025RD	6/10	3+3	25	25/3	6.9	39.7	1500	2380
A7HB10KV1035RD	6/10	3+3	35	25/3	7.8	43.7	2100	2920
A7HB10KV1050RD	6/10	3+3	50	25/3	9.3	46.8	3000	3520
A7HB10KV1070RD	6/10	3+3	70	35/3	11.1	50.7	4200	4430
A7HB10KV1095RD	6/10	3+3	95	50/3	12.7	56.7	5700	5640
A7HB10KV1120RD	6/10	3+3	120	70/3	14.5	60.5	7200	6830
A7HB10KV1150RD	6/10	3+3	150	70/3	16.7	70.3	9000	8320
A7HB10KV1185RD	6/10	3+3	185	95/3	17.6	69	11100	9500
A7HB15KV1025RD	8.7/15	3+3	25	25/3	6.9	45.5	1500	2860
A7HB15KV1035RD	8.7/15	3+3	35	25/3	7.8	47	2100	3210
A7HB15KV1050RD	8.7/15	3+3	50	25/3	9.3	50.3	3000	3830
A7HB15KV1070RD	8.7/15	3+3	70	35/3	11.1	55.9	4200	5000
A7HB15KV1095RD	8.7/15	3+3	95	50/3	12.7	59.3	5700	5870
A7HB15KV1120RD	8.7/15	3+3	120	70/3	14.5	65	7200	7370
A7HB15KV1150RD	8.7/15	3+3	150	70/3	16.7	69.7	9000	8590
A7HB15KV1185RD	8.7/15	3+3	185	96/3	17.6	71.8	11100	9750
A7HB20KV1025RD	12/20	3+3	25	25/3	6.9	47.2	1500	3080
A7HB20KV1035RD	12/20	3+3	35	25/3	7.8	52.6	2100	3460
A7HB20KV1050RD	12/20	3+3	50	25/3	9.3	54.6	3000	4310
A7HB20KV1070RD	12/20	3+3	70	35/3	11.1	58.4	4200	5310
A7HB20KV1095RD	12/20	3+3	95	50/3	12.7	61.9	5700	6180
A7HB20KV1120RD	12/20	3+3	120	70/3	14.5	67.5	7200	7730
A7HB20KV1150RD	12/20	3+3	150	70/3	16.7	72.2	9000	8970

CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	LAYING ON THE FLOOR Amps	FREE IN AIR Amps	REELED Amps						
			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



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VOLTAGE DROP

NOMINAL GROSS SECTIONAL AREA mm ²	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.