

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



Eland Product Group: A7HC

APPLICATION

Flexible cable for energy supply to heavy mobile equipment such as drag lines, shovels, dredges, drills under extreme mechanical stresses and abrasion during trailing operation in opencast mines. Suitable for indoor and outdoor applications.

CHARACTERISTICS

Voltage Rating U_o/U

3.6/6kV
6/10kV

Test Voltage

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

Ambient Temperature

Fixed: -40°C to +80°C
Flexed: -25°C to +80°C

Maximum Short Circuit Temperature

+250°C

Minimum Bending Radius

Fixed: 6 x overall diameter
Flexed: 10 x overall diameter

CONSTRUCTION

Phase Conductor

Class 5 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 braid between the inner and outer sheath

Outer Sheath

Abrasion resistant rubber compound

Sheath Colour

● Yellow

STANDARDS

VDE 0250 Part 813, VDE 0295, 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	MINIMUM OVERALL DIAMETER mm	MAXIMUM OVERALL DIAMETER mm	MAXIMUM TENSILE LOAD N	NOMINAL WEIGHT kg/km
			Phase Conductor	Earth Conductor					
A7HC06KV1025YW	3.6/6	3+3	25	25/3	6.8	39.9	41.6	1500	2390
A7HC06KV1035YW	3.6/6	3+3	35	25/3	7.8	42.9	44.6	2100	2970
A7HC06KV1050YW	3.6/6	3+3	50	25/3	9.4	46	47.7	3000	3600
A7HC06KV1070YW	3.6/6	3+3	70	35/3	11.2	49.8	51.6	4200	4600
A7HC06KV1095YW	3.6/6	3+3	95	50/3	12.7	55.8	57.6	5700	5800
A7HC06KV1120YW	3.6/6	3+3	120	70/3	14.4	59.6	61.4	7200	7070
A7HC06KV1150YW	3.6/6	3+3	150	70/3	16.3	66	68.3	9000	8870
A7HC06KV1185YW	3.6/6	3+3	185	95/3	17.6	67.9	70.2	11100	9980
A7HC10KV1025YW	6/10	3+3	25	25/3	6.8	39.9	42.2	1500	2430
A7HC10KV1035YW	6/10	3+3	35	25/3	7.8	42.9	45.2	2100	3010
A7HC10KV1050YW	6/10	3+3	50	25/3	9.4	46	48.3	3000	3640
A7HC10KV1070YW	6/10	3+3	70	35/3	11.2	49.8	52.2	4200	4640
A7HC10KV1095YW	6/10	3+3	95	50/3	12.7	55.8	58.2	5700	5900
A7HC10KV1120YW	6/10	3+3	120	70/3	14.4	59.6	62.1	7200	7160
A7HC10KV1150YW	6/10	3+3	150	70/3	16.3	66	69	9000	8970
A7HC10KV1185YW	6/10	3+3	185	95/3	17.6	67.9	70.9	11100	10120

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

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.