



# (N)TSCGECEWÖU 1.8/3kV, 3.6/6kV and 6/10kV ATB (Ground Check Conductor)



Eland Product Group: A7HG

## APPLICATION

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

## CHARACTERISTICS

**Voltage Rating** U<sub>o</sub>/U  
1.8/3kV | 3.6/6kV | 6/10kV

**Test Voltage**  
1.8/3kV: 6kV | 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 conductor

**Insulation**  
Rubber compound Type 3GI3

**Semi-Conductive Layers**  
Semi-conductive tape over the conductor and inner and outer semi-conductive rubber layer on the insulation from 3.6/6kV

**Earth Conductor**  
Individual copper braid  
2 x copper earth conductors  
1 x copper checking earth wiring conductor

**Central Filler**  
Rubber compound on a textile polyester support

**Inner Sheath**  
Abrasion resistant rubber compound

**Anti-Torsion Braid**  
Polyester braid between the inner and outer sheath

**Outer Sheath**  
Abrasion resistant rubber compound

**Sheath Colour**  
● Yellow

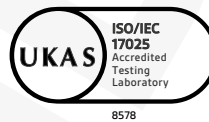
## STANDARDS

VDE 0250 Part 813, VDE 0295 (IEC 60228)

Flame Retardant according to BS EN/IEC 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 + GROUND CHECK CONDUCTOR)	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>			CONDUCTOR DIAMETER mm	MINIMUM OVERALL DIAMETER mm	MAXIMUM OVERALL DIAMETER mm	MAXIMUM TENSILE LOAD N	NOMINAL WEIGHT kg/km
			Phase Conductor	Earth Conductor	Ground Check Conductor					
A7HG03KV025YW	1.8/3	3+2+1	25	25/2	10	6.8	38.2	42.3	1125	2530
A7HG03KV035YW	1.8/3	3+2+1	35	25/2	10	7.8	39.7	44	1575	2930
A7HG03KV050YW	1.8/3	3+2+1	50	25/2	10	9.4	42.7	47.2	2250	3540
A7HG03KV070YW	1.8/3	3+2+1	70	35/2	10	11.2	48.1	53	3150	4730
A7HG03KV095YW	1.8/3	3+2+1	95	50/2	10	12.7	53	58.3	4257	5930
A7HG03KV120YW	1.8/3	3+2+1	120	70/2	10	14.4	57.4	63.1	5400	7270
A7HG03KV150YW	1.8/3	3+2+1	150	70/2	10	16.3	63.8	70	6750	8920
A7HG03KV185YW	1.8/3	3+2+1	185	95/2	10	17.6	65.6	71.9	8325	10220
A7HG06KV025YW	3.6/6	3+2+1	25	25/2	10	6.8	45.4	50.1	1125	3300
A7HG06KV035YW	3.6/6	3+2+1	35	25/2	10	7.8	46.7	51.5	1575	3710
A7HG06KV050YW	3.6/6	3+2+1	50	25/2	10	9.4	51.5	56.7	2250	4600
A7HG06KV070YW	3.6/6	3+2+1	70	35/2	10	11.2	55.2	60.7	3150	5710
A7HG06KV095YW	3.6/6	3+2+1	95	50/2	10	12.7	58.9	64.8	4257	6820
A7HG06KV120YW	3.6/6	3+2+1	120	70/2	10	14.4	65.1	71.4	5400	8540
A7HG06KV150YW	3.6/6	3+2+1	150	70/2	10	16.3	69.9	76.3	6750	9890
A7HG10KV025YW	6/10	3+2+1	25	25/2	10	6.8	48.1	53	1125	3640
A7HG10KV035YW	6/10	3+2+1	35	25/2	10	7.8	49.5	54.6	1575	4070
A7HG10KV050YW	6/10	3+2+1	50	25/2	10	9.4	54.2	59.7	2250	4980
A7HG10KV070YW	6/10	3+2+1	70	35/2	10	11.2	57.9	63.6	3150	6070
A7HG10KV095YW	6/10	3+2+1	95	50/2	10	12.7	61.6	67.7	4257	7280
A7HG10KV120YW	6/10	3+2+1	120	25/2		14.4	67.9	74.4	5400	9070

## CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	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 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.