

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



Eland Product Group: A7HX

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 operations in opencast mines. Halogen-free polyurethane sheathed version. Suitable for indoor and outdoor applications

CHARACTERISTICS

Voltage Rating U₀/U

3.6/6kV

6/10kV

Test Voltage

3.6/6kV: 11kV

6/10kV: 17kV

Ambient Temperature

Fixed: -50°C to +80°C

Flexed: -25°C to +80°C

Minimum Bending Radius

Fixed: 6 x overall diameter

Flexed: 10 x overall diameter

Maximum Torsional Stress

±25°/m

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

Anti-Torsion Braid

Polyester braid between the inner and outer sheath

Inner Sheath

Halogen-free polyurethane

Outer Sheath

Halogen-free polyurethane

Sheath Colour

● Yellow

STANDARDS

VDE 0250 Part 813, HD 22.16 , VDE 0295, EN 60228

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

Halogen Free according to IEC/EN 60754-1/2

THE CABLE LAB[®]

AN ISO/IEC 17025 AND IECEE CBTL ACCREDITED FACILITY

Our world-class testing facility assures the quality and compliance of this cable through a continuous and rigorous testing regime.



SUSTAINABILITY COMMITMENT

We are on a journey to Net Zero.

We've committed to near-term emissions reductions and a net-zero target with the Science Based Targets initiative and we're a signatory to the United Nations Global Compact Sustainable Development Goals.

Learn more about embodied carbon and our carbon emissions reduction actions, our comprehensive recycling services, and wider ESG activities for sustainable operations at: www.elandcables.com/company/about-us/esg-sustainability



SCIENCE
BASED
TARGETS

BUSINESS
AMBITION FOR
1.5°C



REGULATORY COMPLIANCE

This cable meets the requirements of the RoHS Directive 2015/65/EU and Reach Directive EC 1907/2006. RoHS compliance has been tested and confirmed by The Cable Lab[®].





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					
A7HX06KV1025YW	3.6/6	3+3	25	25/3	6.8	37.4	38.6	1500	2280
A7HX06KV1035YW	3.6/6	3+3	35	25/3	7.8	39	40.2	2100	2630
A7HX06KV1050YW	3.6/6	3+3	50	25/3	9.4	42.0	43.7	3000	3230
A7HX06KV1070YW	3.6/6	3+3	70	35/3	11.2	45.8	47.5	4200	4160
A7HX06KV1095YW	3.6/6	3+3	95	50/3	12.7	50	51.8	5700	5080
A7HX06KV1120YW	3.6/6	3+3	120	70/3	14.4	53.8	55.6	7200	6280
A7HX06KV1150YW	3.6/6	3+3	150	70/3	16.3	59.3	61.1	9000	7570
A7HX06KV1185YW	3.6/6	3+3	185	95/3	17.6	61.1	63.4	11100	8740
A7HX10KV1025YW	6/10	3+3	25	25/3	6.8	37.4	39.2	1500	2320
A7HX10KV1035YW	6/10	3+3	35	25/3	7.8	39	40.8	2100	2670
A7HX10KV1050YW	6/10	3+3	50	25/3	9.4	42.0	44.3	3000	3270
A7HX10KV1070YW	6/10	3+3	70	35/3	11.2	45.8	48.1	4200	4200
A7HX10KV1095YW	6/10	3+3	95	50/3	12.7	50	52.4	5700	5120
A7HX10KV1120YW	6/10	3+3	120	70/3	14.4	53.8	56.3	7200	6320
A7HX10KV1150YW	6/10	3+3	150	70/3	16.3	59.3	61.8	9000	7610
A7HX10KV1185YW	6/10	3+3	185	95/3	17.6	61.1	64.1	11100	8780

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 CROSS 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.