



(N)TSCGEWÖU 8.7/15kV and 12/20kV 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 U_o/U

8.7/15kV
12/20kV

Test Voltage

8.7/15kV: 24kV
12/20kV: 29kV

Minimum Bending Radius

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

Ambient Temperature

Fixed: -50°C to +80°C
Flexed: -25°C to +80°C

Maximum Torsional Stress

±25°/m

CONSTRUCTION

Phase Conductor

Class 5 tinned copper
Available with reflecting tape and transparent outer sheath without textile braid on request

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

Central Filler

Semi-conductive compound on a textile polyester support

Inner Sheath

Halogen-free polyurethane

Anti-Torsion Braid

Polyester braid between the inner and outer sheath

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					
A7HX15KV1025YW	8.7/15	3+3	25	25/3	6.8	40.7	42.4	1500	2580
A7HX15KV1035YW	8.7/15	3+3	35	25/3	7.8	42.2	43.9	2100	2930
A7HX15KV1050YW	8.7/15	3+3	50	25/3	9.4	45.4	47.1	3000	3560
A7HX15KV1070YW	8.7/15	3+3	70	35/3	11.2	49.2	51	4200	4510
A7HX15KV1095YW	8.7/15	3+3	95	50/3	12.7	52.6	54.4	5700	5360
A7HX15KV1120YW	8.7/15	3+3	120	70/3	14.4	57.2	59	7200	6690
A7HX15KV1150YW	8.7/15	3+3	150	70/3	16.3	61.7	64	9000	7910
A7HX15KV1185YW	8.7/15	3+3	185	95/3	17.6	63.8	66.1	11100	9110
A7HX20KV1025YW	12/20	3+3	25	25/3	6.8	43.3	45	1500	2810
A7HX20KV1035YW	12/20	3+3	35	25/3	7.8	44.8	46.5	2100	3160
A7HX20KV1050YW	12/20	3+3	50	25/3	9.4	47.9	49.6	3000	3810
A7HX20KV1070YW	12/20	3+3	70	35/3	11.2	51.7	53.5	4200	4780
A7HX20KV1095YW	12/20	3+3	95	50/3	12.7	55.1	56.9	5700	5660
A7HX20KV1120YW	12/20	3+3	120	70/3	14.4	59.6	61.9	7200	7020
A7HX20KV1150YW	12/20	3+3	150	70/3	16.3	64.2	66.5	9000	8250
A7HX20KV1185YW	12/20	3+3	185	95/3	17.6	66.3	68.6	11100	9460

CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	LAYING ON THE FLOOR Amps	REELED Amps						
		1 Layer	2 Layer	3 Layer	4 Layer	5 Layer	6 Layer	7 Layer
25	139	111	85	68	58	53	38	31
35	172	138	105	84	72	65	46	38
50	216	173	132	106	91	82	58	48
70	265	212	162	130	111	101	72	58
95	319	255	195	156	134	121	86	70
120	371	297	226	182	156	141	100	82
150	428	342	261	210	180	163	116	94
185	488	390	298	239	205	185	132	107

Ambient temperature of 30°C



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ELAND
CABLES

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.