

# (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<sub>o</sub>/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

## 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.



8578



FS 672069



EMS 672067



OHS 672066

## 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™.



KM 634267





## DIMENSIONS

ELAND PART NO.	VOLTAGE kV	NO. OF CORES (PHASE + EARTH)	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					
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 <sup>2</sup>	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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## VOLTAGE DROP

NOMINAL GROSS 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.