

ELAND[®]
CABLES

(N)TSCGECECWÖU 8.7/15kV and 12/20kV ZH Cable



Eland Product Group: A7HT

APPLICATION

Flexible cable suitable for reeling drums of tunnel boring machines and generally for tunnel applications. Suitable for indoor and outdoor applications. Halogen free sheathed version.

CHARACTERISTICS

Voltage Rating U₀/U

8.7/15kV
12/20kV

Test Voltage

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

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

CONSTRUCTION

Phase Conductor

Class 5 tinned copper conductor

Insulation

Rubber compound

Semi-Conductive Layers

Semi-conductive tape over the conductor and inner and outer semi-conductive rubber layer on the insulation

Protective Earth Conductor

Individual copper wire screen

Control Conductor

Class 5 tinned copper conductor

Central Filler

Semi-conductive compound on a textile polyester support

Inner Sheath

Halogen-free compound

Monitoring Conductor

Copper wire screen over the inner sheath

Outer Sheath

Halogen-free PUR (Polyurethane)

Sheath Colour

● Black

STANDARDS

VDE 0250 Part 812, VDE 0295 (IEC 60228),
BS EN 60754-1/2

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 +CONTROL+ÜL)	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	Control Conductor					
A7HZ15KV1025BK	8.7/15	3+3+3+ÜL	25	25/3E	2.5ST	6.8	48	51.5	1125	3540
A7HZ15KV1035BK	8.7/15	3+3+3+ÜL	35	25/3E	2.5ST	7.8	49.5	53.1	1575	3930
A7HZ15KV1050BK	8.7/15	3+3+3+ÜL	50	25/3E	2.5ST	9.4	54.4	58.2	2250	4810
A7HZ15KV1070BK	8.7/15	3+3+3+ÜL	70	35/3E	2.5ST	11.2	58.2	62.2	3150	5880
A7HZ15KV1095BK	8.7/15	3+3+3+ÜL	95	50/3E	2.5ST	12.7	61.4	65.7	4275	6950
A7HZ20KV1025BK	12/20	3+3+3+ÜL	25	25/3E	2.5ST	6.8	50.5	54.1	1125	3800
A7HZ20KV1035BK	12/20	3+3+3+ÜL	35	25/3E	2.5ST	7.8	52.3	56	1575	4190
A7HZ20KV1050BK	12/20	3+3+3+ÜL	50	25/3E	2.5ST	9.4	57.5	61.4	2250	5120
A7HZ20KV1070BK	12/20	3+3+3+ÜL	70	35/3E	2.5ST	11.2	61	65.3	3150	6200
A7HZ20KV1095BK	12/20	3+3+3+ÜL	95	50/3E	2.5ST	12.7	66.4	70.9	4275	7550

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	53	31
35	172	138	105	84	72	65	65	38
50	216	173	132	106	91	82	82	48
70	265	212	162	130	111	101	101	58
95	319	255	195	156	134	121	121	70

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

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.