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

Eland Product Group: A7H

APPLICATION

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

CHARACTERISTICS

Voltage Rating Uo/U
8.7/15kV
12/20kV

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

Ambient Temperature
Fixed: -40°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 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
Rubber compound

Monitoring Conductor
Copper wire screen over the inner sheath

Outer Sheath
Rubber compound

Sheath Colour
Red

STANDARDS

VDE 0250 Part 813, VDE 0295, EN 60228

Flame Retardant according to IEC/EN 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.

UKAS ISO/IEC 17025 Accredited Testing Laboratory 8578

bsi. ISO 9001 Quality Management FS 672069 | ISO 14001 Environmental Management EMS 672067 | ISO 45001 Occupational Health and Safety Management OHS 672066

REGULATORY COMPLIANCE

This cable meets the requirements of the Low Voltage Directive 2014/35/EU and 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™.

bsi. RoHS Trusted KITEMARK™ KM 634267

RoHS

DIMENSIONS

ELAND PART NO.	VOLTAGE kV	NO. OF CORES (PHASE + EARTH +CONTROL+ÜL)	NOMINAL CROSS SECTIONAL AREA mm²			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					
A7H15KV1025RD	8.7/15	3+3+3+ÜL	25	25/3E	2.5ST	6.8	48	51.5	1125	3590
A7H15KV1035RD	8.7/15	3+3+3+ÜL	35	25/3E	2.5ST	7.8	49.5	53.1	1575	3990
A7H15KV1050RD	8.7/15	3+3+3+ÜL	50	25/3E	2.5ST	9.4	54.4	58.2	2250	4880
A7H15KV1070RD	8.7/15	3+3+3+ÜL	70	35/3E	2.5ST	11.2	58.2	62.2	3150	5950
A7H15KV1095RD	8.7/15	3+3+3+ÜL	95	50/3E	2.5ST	12.7	61.4	65.7	4275	7030
A7H15KV1120RD	8.7/15	3+3+3+ÜL	120	70/3E	2.5ST	14.4	67.4	71.9	5400	8690
A7H20KV1025RD	12/20	3+3+3+ÜL	25	25/3E	2.5ST	6.8	50.5	54.1	1125	3860
A7H20KV1035RD	12/20	3+3+3+ÜL	35	25/3E	2.5ST	7.8	52.3	56	1575	4260
A7H20KV1050RD	12/20	3+3+3+ÜL	50	25/3E	2.5ST	9.4	57.5	61.4	2250	5190
A7H20KV1070RD	12/20	3+3+3+ÜL	70	35/3E	2.5ST	11.2	61	65.3	3150	6280
A7H20KV1095RD	12/20	3+3+3+ÜL	95	50/3E	2.5ST	12.7	66.4	70.9	4275	7640
A7H20KV1120RD	12/20	3+3+3+ÜL	120	70/3E	2.5ST	14.4	70.5	75.2	5400	9050

CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm²	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

Ambient temperature of 30°C

VOLTAGE DROP

NOMINAL CROSS SECTIONAL AREA mm²	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

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

UK T 020 7241 8787 | F 020 7241 8700 | sales@elandcables.com | www.elandcables.com
International T +44 20 7241 8740 | F +44 20 7241 8700 | international@elandcables.com