(N)TSCGEWÖU - 8.7/15kV and 12/20kV Submersible Cable

Eland Product Group: A7HR

APPLICATION

Flexible supply cable for use in permanent immersion in salty and brackish water up to 300 metres under high mechanical stresses. For applications such as pumps, dredges and floating docks. It is suitable for trailing operations of opencast mining equipment. 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 +60°C

Maximum Permissible Water Temperature
+40°C

Minimum Bending Radius
Fixed: 6 x overall diameter
Flexed: 10 x overall diameter

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

Central Filler
Semi-conductive compound on a textile polyester support

Inner Sheath
EPR rubber compound water proofing

Outer Sheath
CM rubber compound water proofing

Sheath Colour
● Black

STANDARDS

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

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

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

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 mm²		CONDUCTOR DIAMETER mm	MINIMUM OVERALL DIAMETER mm	MAXIMUM OVERALL DIAMETER mm	MAXIMUM TENSILE LOAD N	NOMINAL WEIGHT kg/km
			Phase Conductor	Earth Conductor					
A7HR15KV1025BK	8.7/15	3+3	25	25/3	6.8	47.3	49	1500	3310
A7HR15KV1035BK	8.7/15	3+3	35	25/3	7.8	48.8	50.6	2100	3680
A7HR15KV1050BK	8.7/15	3+3	50	25/3	9.4	53.7	55.5	3000	4580
A7HR15KV1070BK	8.7/15	3+3	70	35/3	11.2	57.5	59.3	4200	5600
A7HR15KV1095BK	8.7/15	3+3	95	50/3	12.7	60.8	63.1	5700	6550
A7HR15KV1120BK	8.7/15	3+3	120	70/3	14.4	66.4	68.7	7200	8130
A7HR15KV1150BK	8.7/15	3+3	150	70/3	16.3	71	73.4	9000	9460
A7HR15KV1185BK	8.7/15	3+3	185	95/3	17.6	73.1	75.5	11100	10700
A7HR20KV1025BK	12/20	3+3	25	25/3	6.8	52	53.8	1500	3830
A7HR20KV1035BK	12/20	3+3	35	25/3	7.8	55.2	57	2100	4440
A7HR20KV1050BK	12/20	3+3	50	25/3	9.4	58.4	60.2	3000	5170
A7HR20KV1070BK	12/20	3+3	70	35/3	11.2	62.1	64.4	4200	6250
A7HR20KV1095BK	12/20	3+3	95	50/3	12.7	67.2	69.5	5700	7480
A7HR20KV1120BK	12/20	3+3	120	70/3	14.4	71	73.4	7200	8840

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
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 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
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.