

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



Eland Product Group: **A7HN**

APPLICATION

Flexible cable for fixed energy distribution in mines and alongside material handling equipment. Suitable for indoor and outdoor applications.

CONSTRUCTION

Phase Conductor

Class 5 tinned copper conductor according to VDE 0295 (IEC 60228)

Insulation

Rubber compound Type 3GI3 according to VDE 0207 Part 20

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

Central Filler

Rubber compound on a textile polyester support

Inner Sheath

Rubber compound Type GM1b according to VDE 0207 Part 21

Outer Sheath

Rubber compound Type 5GM3 according to VDE 0207 Part 21

CABLE STANDARDS

Generally to VDE 0250 Part 813, VDE 0295, BS EN/IEC 60332-1-2, BS EN/IEC 60811-2-1, HD22.16



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating (U_0/U)

8.7/15kV
12/20kV

Test Voltage

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

Maximum Short Circuit Temperature

+250°C

Ambient Temperature

Fixed: -40°C to +80°C

Minimum Bending Radius

Fixed: 6 x overall diameter

Maximum Tensile Load*

15N/mm²

Sheath Colour

● Red

Note

*Referred to the total phase conductors cross section

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	NOMINAL WEIGHT kg/km	MAXIMUM TENSILE LOAD N
			Phase Conductor	Earth Conductor					
A7HN15KV1025RD	8.7/15	3+3	25	25/3E	6.8	47.3	49	3200	1125
A7HN15KV1035RD	8.7/15	3+3	35	25/3E	7.8	48.8	50.6	3570	1575
A7HN15KV1050RD	8.7/15	3+3	50	25/3E	9.4	53.7	55.5	4440	2250
A7HN15KV1070RD	8.7/15	3+3	70	35/3E	11.2	57.5	59.3	5410	3150
A7HN15KV1095RD	8.7/15	3+3	95	50/3E	12.7	60.8	63.1	6480	4275
A7HN15KV1120RD	8.7/15	3+3	120	70/3E	14.4	66.8	69.1	8060	5400
A7HN15KV1150RD	8.7/15	3+3	150	70/3E	16.3	71.5	73.9	9370	6750
A7HN20KV1025RD	12/20	3+3	25	25/3E	6.8	49.8	51.6	3450	1125
A7HN20KV1035RD	12/20	3+3	35	25/3E	7.8	51.3	53.1	3810	1575
A7HN20KV1050RD	12/20	3+3	50	25/3E	9.4	56.3	58.1	4740	2250
A7HN20KV1070RD	12/20	3+3	70	35/3E	11.2	60.1	61.9	5730	3150
A7HN20KV1095RD	12/20	3+3	95	50/3E	12.7	63.3	65.6	6810	4275
A7HN20KV1120RD	12/20	3+3	120	70/3E	14.4	69.3	71.7	8420	5400

ELECTRICAL CHARACTERISTICS

Current Carrying Capacity

NOMINAL CROSS SECTIONAL AREA mm ²	LAYING ON THE FLOOR Amps	REELED						
		1 Layer Amps	2 Layer Amps	3 Layer Amps	4 Layer Amps	5 Layer Amps	6 Layer Amps	7 Layer Amps
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

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	1.60	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	0.60	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

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