

(N)TMCGEWÖU - 8.7/15kV, 12/20kV, 14/25kV and 18/30kV Cable



Eland Product Group: **A7HT**

APPLICATION

Medium voltage rubber sheathed flexible cable, single-core, normally used for short-length connections of transformers and switchgears, as well as power cables on mining equipment and alongside conveyor belts. 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

Earth Conductor

Copper wire screen

Sheath

Rubber compound Type 5GM5 according to VDE 0207 Part 21

CABLE STANDARDS

Generally to VDE 0250 Part 812, VDE 0295, BS EN/IEC 60332-1-2, BS EN/IEC 60811-2-1



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 (U₀/U)

8.7/15kV
12/20V
14/25kV
18/30kV

Test Voltage

8.7/15kV: 24kV
12/20kV: 29kV
14/25kV: 36kV
18/30kV: 43kV

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	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					
A7HT15KV1025RD	8.7/15	1	25	16E	6.8	21.2	23.1	820	375
A7HT15KV1035RD	8.7/15	1	35	16E	7.8	22.1	24	930	525
A7HT15KV1050RD	8.7/15	1	50	16E	9.4	23.6	25.5	1110	750
A7HT15KV1070RD	8.7/15	1	70	16E	11.2	26	27.9	1370	1050
A7HT15KV1095RD	8.7/15	1	95	16E	12.7	27.6	29.5	1620	1425
A7HT15KV1120RD	8.7/15	1	120	16E	14.4	29.4	31.4	1910	1800
A7HT15KV1150RD	8.7/15	1	150	25E	16.3	32.8	34.8	2430	2250
A7HT15KV1185RD	8.7/15	1	185	25E	17.6	33.8	35.8	2720	2775
A7HT15KV1240RD	8.7/15	1	240	25E	20.6	37.8	39.8	3450	3600
A7HT20KV1025RD	12/20	1	25	16E	6.8	22.4	24.3	870	375
A7HT20KV1035RD	12/20	1	35	16E	7.8	23.1	25	970	525
A7HT20KV1050RD	12/20	1	50	16E	9.4	25.4	27.3	1200	750
A7HT20KV1070RD	12/20	1	70	16E	11.2	27.2	29.1	1440	1050
A7HT20KV1095RD	12/20	1	95	16E	12.7	28.8	30.8	1690	1425
A7HT20KV1120RD	12/20	1	120	16E	14.4	31.6	33.6	2060	1800
A7HT20KV1150RD	12/20	1	150	25E	16.3	34	36	2510	2250
A7HT20KV1185RD	12/20	1	185	25E	17.6	35	37	2810	2775
A7HT20KV1240RD	12/20	1	240	25E	20.6	39	41	3540	3600
A7HT25KV1025RD	14/25	1	25	16E	6.8	24.6	26.5	980	375
A7HT25KV1035RD	14/25	1	35	16E	7.8	26.1	28	1130	525
A7HT25KV1050RD	14/25	1	50	16E	9.4	27.6	29.5	1320	750
A7HT25KV1070RD	14/25	1	70	16E	11.2	29.4	31.4	1570	1050
A7HT25KV1095RD	14/25	1	95	16E	12.7	32	34	1900	1425
A7HT25KV1120RD	14/25	1	120	16E	14.4	33.8	35.8	2210	1800
A7HT25KV1150RD	14/25	1	150	25E	16.3	36.3	38.3	2680	2250
A7HT25KV1185RD	14/25	1	185	25E	17.6	38.2	40.2	3060	2775
A7HT25KV1240RD	14/25	1	240	25E	20.6	41.1	44	3730	3600
A7HT30KV1025RD	18/30	1	25	16E	6.8	27.2	29.1	1120	375
A7HT30KV1035RD	18/30	1	35	16E	7.8	28.1	30	1240	525
A7HT30KV1050RD	18/30	1	50	16E	9.4	29.6	31.6	1440	750
A7HT30KV1070RD	18/30	1	70	16E	11.2	32.4	34.4	1770	1050
A7HT30KV1095RD	18/30	1	95	16E	12.7	34.1	36.1	2040	1425
A7HT30KV1120RD	18/30	1	120	16E	14.4	35.9	37.9	2360	1800
A7HT30KV1150RD	18/30	1	150	25E	16.3	39.3	41.3	2920	2250
A7HT30KV1185RD	18/30	1	185	25E	17.6	40.1	43	3230	2775
A7HT30KV1240RD	18/30	1	240	25E	20.6	43.1	46	3910	3600

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
185	488	390	298	239	205	185	132	107
240	574	459	350	281	241	218	155	126

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	0.6	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
240	0.21	0.22	0.21	0.18

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