

# (N)TMCGEWÖU 3.6/6kV and 6/10kV 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 (U<sub>0</sub>/U)

3.6/6kV

6/10kV

### Test Voltage

3.6/6kV: 11kV

6/10kV: 17kV

### 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/mm<sup>2</sup>

### 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 <sup>2</sup>		CONDUCTOR DIAMETER mm	MINIMUM OVERALL DIAMETER mm	MAXIMUM OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	MAXIMUM TENSILE LOAD N
			Phase Conductor	Earth Conductor					
A7HT06KV1025RD	3.6/6	1	25	16E	6.8	19.3	20.3	730	375
A7HT06KV1035RD	3.6/6	1	35	16E	7.8	20.5	22.4	860	525
A7HT06KV1050RD	3.6/6	1	50	16E	9.4	22	23.9	1030	750
A7HT06KV1070RD	3.6/6	1	70	16E	11.2	23.8	25.7	1260	1050
A7HT06KV1095RD	3.6/6	1	95	16E	12.7	26.4	28.3	1550	1425
A7HT06KV1120RD	3.6/6	1	120	16E	14.4	28.2	30.2	1840	1800
A7HT06KV1150RD	3.6/6	1	150	25E	16.3	30.6	32.6	2280	2250
A7HT06KV1185RD	3.6/6	1	185	25E	17.6	32.5	34.5	2630	2775
A7HT06KV1240RD	3.6/6	1	240	25E	20.6	35.6	37.6	3270	3600
A7HT10KV1025RD	6/10	1	25	16E	6.8	19.3	20.9	770	375
A7HT10KV1035RD	6/10	1	35	16E	7.8	20.5	23	900	525
A7HT10KV1050RD	6/10	1	50	16E	9.4	22	24.5	1070	750
A7HT10KV1070RD	6/10	1	70	16E	11.2	23.8	26.3	1300	1050
A7HT10KV1095RD	6/10	1	95	16E	12.7	26.4	28.9	1590	1425
A7HT10KV1120RD	6/10	1	120	16E	14.4	28.2	30.9	1880	1800
A7HT10KV1150RD	6/10	1	150	25E	16.3	30.6	33.3	2320	2250
A7HT10KV1185RD	6/10	1	185	25E	17.6	32.5	35.2	2670	2775
A7HT10KV1240RD	6/10	1	240	25E	20.6	35.6	38.3	3310	3600

## ELECTRICAL CHARACTERISTICS

## Current Carrying Capacity

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	LAYING ON THE FLOOR Amps	FREE IN AIR Amps	REELED						
			1 Layer Amps	2 Layer Amps	3 Layer Amps	4 Layer Amps	5 Layer Amps	6 Layer Amps	7 Layer Amps
25	131	138	105	80	64	55	50	35	29
35	162	170	130	99	79	68	62	44	36
50	202	212	162	123	99	85	77	55	44
70	250	263	200	153	123	105	95	68	55
95	301	316	241	184	147	126	114	81	66
120	352	370	282	215	172	148	134	95	77
150	404	424	323	246	198	170	154	109	89
185	461	484	369	281	226	194	175	124	101
240	528	554	422	322	259	222	201	143	116

Ambient temperature of 30°C

## Voltage Drop

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	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
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