

ELAND<sup>®</sup>  
CABLES

# (N)TMCGEWÖU 12/20kV, 14/25kV, 18/30kV Medium Voltage 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.

## CHARACTERISTICS

### Voltage Rating U<sub>o</sub>/U

12/20V, 14/25kV, 18/30kV

### Test Voltage

12/20kV: 29kV | 14/25kV: 36kV | 18/30kV: 43kV

### Maximum Tensile Load

15N/mm<sup>2</sup>

### Temperature Range

Maximum Short Circuit Temperature: 250°C  
Fixed: -40°C to +80°C

### Minimum Bending Radius

Fixed: 6 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

Overall plain copper wire screen

### Outer Sheath

Rubber compound

### Sheath Colour

● Red

## STANDARDS

Based on VDE 0250 Part 812, VDE 0295 (IEC 60228),  
IEC 60811-403/404

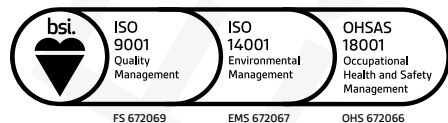
Flame Retardant according to BS EN/IEC 60332-1-2



## UK LABORATORY TESTED



This product is subject to the Quality Assurance protocols of The Cable Lab<sup>®</sup>, a UKAS accredited ISO 17025 cable testing laboratory. Testing includes vertical flame, conductor resistance, tensile & elongation, and dimensional consistency, verified to published standards and approved product drawings.



## 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<sup>®</sup> as meeting the requirements of the BSI RoHS Trusted Kitemark<sup>™</sup>.



## DIMENSIONS

ELAND PART NO.	VOLTAGE kV	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>		CONDUCTOR DIAMETER mm	MAXIMUM OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	MAXIMUM TENSILE LOAD N
			Phase Conductor	Earth Conductor				
A7HT20KV1025RD	12/20	1	25	16E	6.8	23.3	375	870
A7HT20KV1035RD	12/20	1	35	16E	7.8	24	525	970
A7HT20KV1050RD	12/20	1	50	16E	9.4	26.3	750	1200
A7HT20KV1070RD	12/20	1	70	16E	11.2	28.1	1050	1440
A7HT20KV1095RD	12/20	1	95	16E	12.7	39.8	1425	1690
A7HT20KV1120RD	12/20	1	120	16E	14.4	32.6	1800	2060
A7HT20KV1150RD	12/20	1	150	25E	16.3	35	2250	2510
A7HT20KV1185RD	12/20	1	185	25E	17.6	36	2775	2810
A7HT20KV1240RD	12/20	1	240	25E	20.6	40	3600	3540
A7HT25KV1025RD	14/25	1	25	16E	6.8	25.5	375	980
A7HT25KV1035RD	14/25	1	35	16E	7.8	27	525	1130
A7HT25KV1050RD	14/25	1	50	16E	9.4	28.5	750	1320
A7HT25KV1070RD	14/25	1	70	16E	11.2	30.4	1050	1570
A7HT25KV1095RD	14/25	1	95	16E	12.7	33	1425	1900
A7HT25KV1120RD	14/25	1	120	16E	14.4	34.8	1800	2210
A7HT25KV1150RD	14/25	1	150	25E	16.3	37.3	2250	2680
A7HT25KV1185RD	14/25	1	185	25E	17.6	39.2	2775	3060
A7HT25KV1240RD	14/25	1	240	25E	20.6	42.5	3600	3730
A7HT30KV1025RD	18/30	1	25	16E	6.8	28.1	375	1120
A7HT30KV1035RD	18/30	1	35	16E	7.8	29	525	1240
A7HT30KV1050RD	18/30	1	50	16E	9.4	30.6	750	1440
A7HT30KV1070RD	18/30	1	70	16E	11.2	33.4	1050	1770
A7HT30KV1095RD	18/30	1	95	16E	12.7	35.1	1425	2040
A7HT30KV1120RD	18/30	1	120	16E	14.4	36.9	1800	2360
A7HT30KV1150RD	18/30	1	150	25E	16.3	40.3	2250	2920
A7HT30KV1185RD	18/30	1	185	25E	17.6	41.5	2775	3230
A7HT30KV1240RD	18/30	1	240	25E	20.6	44.5	3600	3910

## CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	LAYING ON THE FLOOR Amps	REELED Amps						
		1 Layer	2 Layer	3 Layer	4 Layer	5 Layer	6 Layer	7 Layer
25	131	111	85	68	58	53	38	31
35	162	138	105	84	72	65	46	38
50	202	173	132	106	91	82	58	48
70	250	212	162	130	111	101	72	58
95	301	255	195	156	134	121	86	70
120	352	297	226	182	156	141	100	82
150	404	342	261	210	180	163	116	94
185	461	390	298	239	205	185	132	107
240	528	459	350	281	241	218	155	126

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

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.