(N)TMCGEWÖU - 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.

CHARACTERISTICS

Voltage Rating Uo/U
12/20V
14/25kV
18/30kV

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

Ambient Temperature
Fixed: -40°C to +80°C

Maximum Short Circuit Temperature
+250°C

Minimum Bending Radius
Fixed: 6 x overall diameter

CONSTRUCTION

Phase Conductor
Class 5 flexible stranded tinned copper

Insulation
Rubber compound Type 3GI3

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

Outer Sheath
Rubber compound Type 5GM5

Sheath Colour
Red

STANDARDS

VDE 0250 Part 812, VDE 0295, EN 60228

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

ISO/IEC 17025 LABORATORY TESTED

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

UKAS ISO/IEC 17025 Accredited Testing Laboratory 8578

bsi. ISO 9001 Quality Management FS 672069 | ISO 14001 Environmental Management EMS 672067 | ISO 45001 Occupational Health and Safety Management OHS 672066

REGULATORY COMPLIANCE

This cable meets the requirements of the RoHS Directive 2011/65/EU. RoHS compliance has been tested and confirmed by The Cable Lab® as meeting the requirements of the BSI RoHS Trusted Kitemark™.

bsi. RoHS Trusted KITEMARK™ KM 634267

RoHS

DIMENSIONS

ELAND PART NO.	VOLTAGE kV	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²		CONDUCTOR DIAMETER mm	MINIMUM OVERALL DIAMETER mm	MAXIMUM OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
			Phase Conductor	Earth Conductor				
A7HT20KV1025RD	12/20	1	25	16E	6.8	22.4	24.3	870
A7HT20KV1035RD	12/20	1	35	16E	7.8	23.1	25	970
A7HT20KV1050RD	12/20	1	50	16E	9.4	25.4	27.3	1200
A7HT20KV1070RD	12/20	1	70	16E	11.2	27.2	29.1	1440
A7HT20KV1095RD	12/20	1	95	16E	12.7	28.8	30.8	1690
A7HT20KV1120RD	12/20	1	120	16E	14.4	31.6	33.6	2060
A7HT20KV1150RD	12/20	1	150	25E	16.3	34	36	2510
A7HT20KV1185RD	12/20	1	185	25E	17.6	35	37	2810
A7HT20KV1240RD	12/20	1	240	25E	20.6	39	41	3540
A7HT25KV1025RD	14/25	1	25	16E	6.8	24.6	26.5	980
A7HT25KV1035RD	14/25	1	35	16E	7.8	26.1	28	1130
A7HT25KV1050RD	14/25	1	50	16E	9.4	27.6	29.5	1320
A7HT25KV1070RD	14/25	1	70	16E	11.2	29.4	31.4	1570
A7HT25KV1095RD	14/25	1	95	16E	12.7	32	34	1900
A7HT25KV1120RD	14/25	1	120	16E	14.4	33.8	35.8	2210
A7HT25KV1150RD	14/25	1	150	25E	16.3	36.3	38.3	2680
A7HT25KV1185RD	14/25	1	185	25E	17.6	38.2	40.2	3060
A7HT25KV1240RD	14/25	1	240	25E	20.6	41.1	44	3730
A7HT30KV1025RD	18/30	1	25	16E	6.8	27.2	29.1	1120
A7HT300KV1035RD	18/30	1	35	16E	7.8	28.1	30	1240
A7HT30KV1050RD	18/30	1	50	16E	9.4	29.6	31.6	1440
A7HT30KV1070RD	18/30	1	70	16E	11.2	32.4	34.4	1770
A7HT30KV1095RD	18/30	1	95	16E	12.7	34.1	36.1	2040
A7HT30KV1120RD	18/30	1	120	16E	14.4	35.9	37.9	2360
A7HT30KV1150RD	18/30	1	150	25E	16.3	39.3	41.3	2920
A7HT30KV1185RD	18/30	1	185	25E	17.6	40.1	43	3230
A7HT30KV1240RD	18/30	1	240	25E	20.6	43.1	46	3910

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA OF PHASE CONDUCTOR mm²	MAXIMUM TENSILE LOAD N
25	375
35	525
50	750
70	1050
95	1425
120	1800
150	2250
185	2775
240	3600

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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	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 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
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