BS 6622 CU XLPE AWA/SWA PVC 6.35/11 (12)kV Cable

Eland Product Group: A9M

APPLICATION

Power cables for power networks, underground and in cable ducting.

CHARACTERISTICS

Voltage Rating Uo/U (Um)
6.35/11 (12)kV

Temperature Rating
Maximum conductor operating temperature: 90°C
Initial temperature at S.C.C for metallic screen: 80°C
Maximum conductor temperature during S.C: 250°C

Minimum Bending Radius
Single core: 15 x overall diameter
Multi core: 12 x overall diameter

CONSTRUCTION

Conductor
Class 2 Stranded Circular Compacted Copper

Conductor Screen
Extruded Inner Semi Conductor (Bonded Type)

Insulation
XLPE (Cross-Linked Polyethylene)

Outer Semi Conductor
Extruded Outer Semi Conductor (Strippable Type)

Metallic Screen
Copper tape with 10% overlap

Inner Sheath
PVC (Polyvinyl Chloride)

Armour
Single core: AWA (Aluminium Wire Armoured)
Multi-core: SWA (Galvanised Steel Wire Armoured)

Outer Sheath
PVC (Polyvinyl Chloride)

● Red ● Black

STANDARDS

BS 6622, IEC 60502-2, IEC/EN 60228

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

THE CABLE LAB®

AN ISO/IEC 17025 AND IECEE CBTL ACCREDITED FACILITY

Our world-class testing facility assures the quality and compliance of this cable through a continuous and rigorous testing regime.

SUSTAINABILITY COMMITMENT

We are on a journey to Net Zero.

We've committed to near-term emissions reductions and a net-zero target with the Science Based Targets initiative and we're a signatory to the United Nations Global Compact Sustainable Development Goals.

Learn more about embodied carbon and our carbon emissions reduction actions, our comprehensive recycling services, and wider ESG activities for sustainable operations at: www.elandcables.com/company/about-us/esg-sustainability

REGULATORY COMPLIANCE

This cable meets the requirements of the RoHS Directive 2015/65/EU and Reach Directive EC 1907/2006. RoHS compliance has been tested and confirmed by The Cable Lab®.

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²	NOMINAL INSULATION THICKNESS mm	NOMINAL OUTER SHEATH THICKNESS mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
A9M11KV01070*	1	70	3.4	1.9	28.9	1424
A9M11KV01095*	1	95	3.4	1.9	30.2	1707
A9M11KV01120*	1	120	3.4	2	32.3	2046
A9M11KV01150*	1	150	3.4	2.1	33.9	2363
A9M11KV01185*	1	185	3.4	2.1	35.4	2735
A9M11KV01240*	1	240	3.4	2.2	38	3376
A9M11KV01300*	1	300	3.4	2.3	40.6	4012
A9M11KV01400*	1	400	3.4	2.4	44.6	5042
A9M11KV01500*	1	500	3.4	2.5	48.2	6154
A9M11KV01630*	1	630	3.4	2.6	53.3	7718
A9M11KV01800*	1	800	3.4	2.8	57.6	9616
A9M11KV03070*	3	70	3.4	2.7	54.6	5760
A9M11KV03095*	3	95	3.4	2.8	57.6	6732
A9M11KV03120*	3	120	3.4	3.0	61	7789
A9M11KV03150*	3	150	3.4	3.1	64.6	8916
A9M11KV03185*	3	185	3.4	3.2	68.3	10290
A9M11KV03240*	3	240	3.4	3.4	75.7	13367
A9M11KV03300*	3	300	3.4	3.4	81.5	15736
A9M11KV03400*	3	400	3.4	3.8	87.7	18907

* Designates the sheath colour. For each Eland Cables part number replace with the colour code as listed below e.g. A9M011KV01070RD = 70mm² Red

COLOUR CODES

COLOUR	Red	Black
CODE	RD	BK

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NOMINAL CROSS SECTIONAL AREA mm²	MAXIMUM CONDUCTOR DC RESISTANCE AT 20°C Ω/Km	MAXIMUM CONDUCTOR AC RESISTANCE AT OPERATING TEMP. AND 50HZ Ω/Km	CAPACITANCE µF/Km	CHARGING CURRENT A/Km	DIELECTRIC LOSSES W/Km	REACTANCE AT 50 HZ ohm/km	CONDUCTOR S.C.C For 1 second KA	CURRENT RATING A	
								Laid in ground	Laid in free air
70	0.268	0.3421	0.303	0.605	15.35	0.128	10.02	278	301
95	0.193	0.2466	0.332	0.662	16.81	0.123	13.59	330	362
120	0.153	0.1958	0.362	0.723	18.37	0.119	17.17	371	413
150	0.124	0.159	0.397	0.793	20.15	0.114	21.46	413	465
185	0.0991	0.1276	0.43	0.859	21.81	0.111	26.47	452	525
240	0.0754	0.0978	0.483	0.964	24.47	0.106	34.34	510	605
300	0.0601	0.0789	0.535	1.068	27.13	0.103	42.93	561	681
400	0.047	0.0628	0.592	1.181	30.00	0.101	57.23	597	747
500	0.0366	0.0504	0.666	1.329	33.76	0.097	71.54	649	830
630	0.0283	0.0408	0.768	1.533	38.95	0.095	90.14	694	909
800	0.0221	0.0341	0.858	1.711	43.47	0.092	114.47	736	992

NOMINAL CROSS SECTIONAL AREA mm²	MAXIMUM CONDUCTOR DC RESISTANCE AT 20°C Ω/Km	MAXIMUM CONDUCTOR AC RESISTANCE AT OPERATING TEMP. AND 50HZ Ω/Km	CAPACITANCE µF/Km	CHARGING CURRENT A/Km	DIELECTRIC LOSSES W/Km	REACTANCE AT 50 HZ ohm/km	CONDUCTOR S.C.C For 1 second KA	CURRENT RATING A	
								Laid in ground	Laid in free air
70	0.268	0.3423	0.363	0.605	15.35	0.104	10.02	264	271
95	0.193	0.2469	0.398	0.662	16.81	0.100	13.59	313	326
120	0.153	0.1961	0.435	0.723	18.37	0.096	17.17	355	373
150	0.124	0.1595	0.477	0.793	20.15	0.093	21.46	398	423
185	0.0991	0.1282	0.516	0.859	21.81	0.090	26.47	447	480
240	0.0754	0.0986	0.579	0.964	24.47	0.087	34.34	512	561
300	0.0601	0.0799	0.642	1.068	27.13	0.085	42.93	571	635
400	0.047	0.0642	0.71	1.181	30.00	0.082	57.23	636	718

DE-RATING FACTORS

AIR TEMPERATURE °C	25	30	35	40	45	50	55
DE-RATING FACTOR	1.00	0.96	0.92	0.88	0.83	0.78	0.73

GROUND TEMPERATURE °C	10	15	20	25	30	35	40
DE-RATING FACTOR	1.03	1.00	0.97	0.93	0.89	0.86	0.82

GROUND THERMAL RESISTIVITY km/W	0.9	1.0	1.2	1.5	2.0	2.5	3.0
DE-RATING FACTOR	1.06	1.04	1.00	0.92	0.82	0.74	0.68

DEPTH OF LAYING m	0.80	1.00	1.25	1.50	1.75	2.00	2.50
DE-RATING FACTOR	1.00	0.97	0.95	0.94	0.93	0.91	0.90

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