



# BS 6622 CU XLPE AWA/SWA PVC 3.8/6.6kV Cable



Eland Product Group: A9M

## APPLICATION

Armoured power distribution cables for external and direct burial applications in power networks.

## CHARACTERISTICS

### Voltage Rating $U_0/U$ (Um)

3.8/6.6 (7.2) 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: 13 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 (Steel Wire Armoured)

### Outer Sheath

PVC (Polyvinyl Chloride)

### Sheath Colour

● Red ● Black

## STANDARDS

BS 6622, IEC/EN 60228

## THE CABLE LAB<sup>®</sup>

AN ISO/IEC 17025 AND IECCE 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](http://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<sup>®</sup>.





## DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL INSULATION THICKNESS mm	NOMINAL OUTER SHEATH THICKNESS mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
A9M066KV01095*	1	95	2.5	1.9	30.4	1721
A9M066KV01120*	1	120	2.5	1.9	31.8	1996
A9M066KV01150*	1	150	2.5	2	33.6	2333
A9M066KV01185*	1	185	2.5	2.1	35.6	2752
A9M066KV01240*	1	240	2.6	2.1	38.2	3388
A9M066KV01300*	1	300	2.8	2.2	41.2	4060
A9M066KV01400*	1	400	3	2.3	44.4	4989
A9M066KV01500*	1	500	3.2	2.5	49.4	6269
A9M066KV01630*	1	630	3.2	2.6	54.3	7822
A9M066KV01800*	1	800	3.2	2.7	58.6	9729
A9M066KV03095*	3	95	2.5	2.7	57.6	6765
A9M066KV03120*	3	120	2.5	2.9	61	7784
A9M066KV03150*	3	150	2.5	3	64.9	8989
A9M066KV03185*	3	185	2.5	3.1	68.3	10285
A9M066KV03240*	3	240	2.6	3.3	74.5	12617
A9M066KV03300*	3	300	2.8	3.5	82.8	15947
A9M066KV03400*	3	400	3	3.8	90.3	19403

\* Designates the sheath colour. For each Eland Cables part number replace with the colour code as listed below e.g. A9M066KV01095RD = 95mm<sup>2</sup> Red

## COLOUR CODES

COLOUR CODE	Red	Black
	RD	BK



## ELECTRICAL CHARACTERISTICS

### Single Core

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	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
95	0.193	0.2466	0.364	0.435	6.61	0.123	13.59	330	360
120	0.153	0.1958	0.398	0.476	7.23	0.118	17.17	373	411
150	0.124	0.159	0.437	0.522	7.93	0.114	21.46	415	463
185	0.0991	0.1276	0.473	0.565	8.59	0.111	26.47	462	523
240	0.0754	0.0978	0.515	0.616	9.36	0.107	34.34	511	604
300	0.0601	0.0788	0.54	0.645	9.79	0.104	42.93	562	679
400	0.047	0.0628	0.565	0.675	10.26	0.100	57.23	616	762
500	0.0366	0.0503	0.635	0.758	11.52	0.099	71.54	647	830
630	0.0283	0.0407	0.727	0.868	13.20	0.096	90.14	696	911
800	0.0221	0.034	0.811	0.969	14.72	0.093	114.47	738	991

## ELECTRICAL CHARACTERISTICS

### Multi Core

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	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
95	0.193	0.2469	0.437	0.435	6.61	0.101	13.59	313	324
120	0.153	0.1961	0.478	0.476	7.23	0.097	17.17	355	370
150	0.124	0.1595	0.524	0.522	7.93	0.093	21.46	397	419
185	0.0991	0.1281	0.568	0.565	8.59	0.091	26.47	448	478
240	0.0754	0.0986	0.618	0.616	9.36	0.088	34.34	513	561
300	0.0601	0.0798	0.647	0.645	9.79	0.086	42.93	572	635
400	0.047	0.064	0.678	0.675	10.26	0.084	57.23	636	717

Laying conditions at trefoil formation are as below:

- Soil thermal resistivity 100 °C.Cm/Watt
- Burial depth 0.8 m
- Ground temperature 20 °C | Air temperature 30 °C | Frequency 50 Hz