

# BS 7835 XLPE LSZH 6.35/11 (12)kV Cable



Eland Product Group: A9M

## APPLICATION

Power cables for power networks, underground, outdoors and in cable ducting. For installation where fire, smoke emission and toxic fumes create a potential threat to life and equipment.

## CHARACTERISTICS

**Voltage Rating** U<sub>0</sub>/U (Um)  
6.35/11 (12)kV

**Temperature Rating**  
Fixed: 0°C to +90°C

### Minimum Bending Radius

Single core - Fixed: 15 x overall diameter

3 core - Fixed: 12 x overall diameter

(Single core 12 x overall diameter and 3 core 10 x overall diameter where bends are positioned adjacent to a joint or termination provided that the bending is carefully controlled by the use of a former)

## CONSTRUCTION

### Conductor

Class 2 stranded copper conductor

### Conductor Screen

Semi-conductive XLPE (Cross-Linked Polyethylene)

### Insulation

XLPE (Cross-Linked Polyethylene)

### Insulation Screen

Semi-conductive XLPE (Cross-Linked Polyethylene)

### Metallic Screen

Individual or overall copper tape screen

### Filler

PET (Polyethylene Terephthalate) fibres

### Separator

Binding tape

### Bedding

LSZH (Low Smoke Zero Halogen)

### Armour

Single core: AWA (Aluminium Wire Armoured)

Multi-core: SWA (Steel Wire Armoured)

### Sheath

LSZH (Low Smoke Zero Halogen)

### Sheath Colour

● Red ● Black

## BSI KITEMARK™ TESTED



Cables are tested and verified by The Cable Lab® to confirm they meet the quality standards required of the BSI Cable Testing Verification Kitemark™.

## STANDARDS

BS 7835, IEC/EN 60228,

Low Smoke Zero Halogen to IEC/EN 61034-1/2, IEC/EN 60754-1/2, Flame Retardant acc. to IEC/EN 60332-1-2, IEC/EN 60332-3-24

## THE CABLE LAB®

### 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)



SCIENCE  
BASED  
TARGETS

**BUSINESS  
AMBITION FOR 1.5°C**



## 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 mm <sup>2</sup>	NOMINAL DIAMETER mm			NOMINAL WEIGHT kg/km
			Under Armour	Over Armour	Overall	
A9M11KV01050*L	1	50	21.7	24.9	28.5	1200
A9M11KV01070*L	1	70	23	26.2	30	1500
A9M11KV01095*L	1	95	24.7	27.9	31.7	1600
A9M11KV01120*L	1	120	26.7	29.9	33.9	2100
A9M11KV01150*L	1	150	27.5	31.5	35.7	2500
A9M11KV01185*L	1	185	29.3	33.3	37.5	2900
A9M11KV01240*L	1	240	31.6	35.6	40	3600
A9M11KV01300*L	1	300	34.6	38.6	43	4300
A9M11KV01400*L	1	400	37	41	45.8	5200
A9M11KV01500*L	1	500	40.5	45.5	50.5	6500
A9M11KV01630*L	1	630	44.6	49.6	54.8	8000
A9M11KV01800*L	1	800	48.8	53.8	59.2	9850
A9M11KV011000*L	1	1000	53.5	58.5	64.3	12100
A9M11KV03035*L	3	35	41.6	46.6	51.6	4700
A9M11KV03050*L	3	50	44.4	49.4	54.6	5300
A9M11KV03070*L	3	70	48.1	53.1	58.5	6300
A9M11KV03095*L	3	95	52	57	62.6	7300
A9M11KV03120*L	3	120	55.6	60.6	66.6	8400
A9M11KV03150*L	3	150	58.6	63.6	69.8	9600
A9M11KV03185*L	3	185	62.7	67.7	74.1	11000
A9M11KV03240*L	3	240	68.1	74.4	81.2	14000
A9M11KV03300*L	3	300	73.5	79.8	87	16600
A9M11KV03400*L	3	400	78.3	84.6	92.2	20000

\* Designates the sheath colour. For each Eland Cables part number replace with the colour code as listed below. e.g. A9M11KV01050RDL = 50mm<sup>2</sup> Red

## COLOUR CODES

COLOUR	Red	Black
CODE	RD	BK



## CONDUTORS

### Class 2 Stranded Conductors for Single Core and Multi-Core Cables

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL DIAMETER mm						MAXIMUM RESISTANCE OF CONDUCTOR AT 20°C ohms/km
	Circular		Circular Compacted		Shaped		Annealed Copper Conductor
	Cu	Al	Cu	Al	Cu	Al	Plain Wires
50	19	19	6	6	6	6	0.387
70	19	19	12	12	12	12	0.268
95	19	19	15	15	15	15	0.193
120	37	37	18	15	18	15	0.153
150	37	37	18	15	18	15	0.124
185	37	37	30	30	30	30	0.0991
240	37	37	34	30	34	30	0.0754
300	61	61	34	30	34	30	0.0601
400	61	61	53	53	53	53	0.047
500	61	61	53	53	53	53	0.0366
630	91	91	53	53	53	53	0.0283
800	91	91	53	53	-	-	0.0221
1000	91	91	53	53	-	-	0.0176

## ELECTRICAL CHARACTERISTICS

### Current Carrying Capacity

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	CONTINUOUS CURRENT RATING Amps					
		In Ground		In Ducts		In Air	
		Trefoil	Flat	Trefoil	Flat	Trefoil	Flat
1	50	220	230	220	220	250	300
1	70	270	280	260	270	310	370
1	95	320	335	305	325	375	460
1	120	360	380	340	370	430	530
1	150	410	430	375	410	490	600
1	185	455	485	410	460	550	690
1	240	520	560	470	540	650	820
1	300	580	640	500	610	740	940
1	400	650	730	530	690	840	1100
1	500	710	830	570	780	930	1280
1	630	760	940	620	890	1040	1480
1	800	810	1060	660	990	1140	1690
1	1000	860	1170	690	1090	1230	1900
3	35	170	170	150	150	175	175
3	50	210	210	180	180	220	220
3	70	250	250	215	215	270	270
3	95	300	300	255	255	330	330
3	120	340	340	290	290	380	380
3	150	380	380	330	330	430	430
3	185	430	430	370	370	490	490
3	240	500	500	430	430	570	570
3	300	540	540	470	470	650	650
3	400	625	625	525	525	755	755



## 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

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.