BS 7835 XLPE / LSZH
Medium Voltage 19/33 (36)kV Cable



Eland Product Group: A9M

APPLICATION

Power cables for power networks, underground and in cable ducting, in installations with potential threat to life and equipment in the event of fire, smoke and toxic fumes emissions.

CHARACTERISTICS

Voltage Rating Uo/U (Um)
19/33 (36)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 according to BS EN 60228 (previously BS 6360)

Conductor Screen
Semi-conductive XLPE (Cross-Linked Polyethylene)

Insulation
XLPE (Cross-Linked Polyethylene) Type GP8 according to BS 7655

Insulation Screen
Semi-conductive XLPE (Cross-Linked Polyethylene)

Metallic Screen
Individual or overall copper tape screen according to BS 7835

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

STANDARDS

BS 7835, IEC/EN 60228, IEC/EN 60502-2

Flame Retardant according to IEC/EN 60332-1-2, IEC/EN 60332-3-24, EN 50266-2-4

Oxygen index: 35
0.5% HCL to BS EN 50267-2-1
Low smoke ito IEC/EN 60754-1/2, IEC/EN 61034-1/2
UV Resistant

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 DIAMETER mm			NOMINAL WEIGHT kg/km
			Under Armour	Over Armour	Overall	
A9M33KV01070L*	1	70	32.6	36.6	41	2300
A9M33KV01095L*	1	95	34.3	38.3	42.9	2650
A9M33KV01120L*	1	120	35.9	39.9	44.5	3000
A9M33KV01150L*	1	150	37.5	42.5	47.3	3500
A9M33KV01185L*	1	185	39.3	44.3	49.3	4000
A9M33KV01240L*	1	240	41.7	46.7	51.7	4650
A9M33KV01300L*	1	300	44.2	49.2	54.4	5450
A9M33KV01400L*	1	400	47.3	52.3	57.7	6350
A9M33KV01500L*	1	500	50.5	55.5	61.1	7600
A9M33KV01630L*	1	630	54.2	59.2	65	9150
A9M33KV01800L*	1	800	60.5	65.5	71.6	11100
A9M33KV011000L*	1	1000	65	70	76.5	13400
A9M33KV03050L*	3	50	65.1	71.4	78.2	9150
A9M33KV03070L*	3	70	68.8	75.1	82.1	10300
A9M33KV03095L*	3	95	72.6	78.9	86.1	11600
A9M33KV03120L*	3	120	76.3	82.6	90	12800
A9M33KV03150L*	3	150	79.3	85.6	93.2	14050
A9M33KV03185L*	3	185	83.4	89.7	97.5	15650
A9M33KV03240L*	3	240	88.8	95.1	103.3	18200
A9M33KV03300L*	3	300	93.9	100.2	108.8	21100
A9M33KV03400L*	3	400	100.8	107.1	116.1	24200

* Designates the sheath colour. For each Eland Cables part number replace with the colour code as listed below. e.g. A9M33KV01070RD = 70mm² Red

COLOUR CODES

COLOUR	Red	Black
CODE	RD	BK

UK T 020 7241 8787 | F 020 7241 8700 | sales@elandcables.com | www.elandcables.com
International T +44 20 7241 8740 | F +44 20 7241 8700 | international@elandcables.com

CONDUCTORS

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

NOMINAL CROSS SECTIONAL AREA mm²	NOMINAL STRANDING (No.)						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 mm²	CONTINUOUS CURRENT RATING Amps					
		In Ground		In Ducts		In Air	
		Trefoil	Flat	Trefoil	Flat	Trefoil	Flat
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	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	600	600	530	530	740	740
3	240	500	500	430	430	570	570
3	300	540	540	470	470	650	650
3	400	600	600	530	530	740	740

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.

UK T 020 7241 8787 | F 020 7241 8700 | sales@elandcables.com | www.elandcables.com
International T +44 20 7241 8740 | F +44 20 7241 8700 | international@elandcables.com