

# BS 6622 XLPE PVC 8.7/15kV Cable



Eland Product Group: A9M

## APPLICATION

Medium voltage PVC power cables for power networks, underground and in cable ducting.

## CHARACTERISTICS

**Voltage Rating** U<sub>0</sub>/U (Um)  
8.7/15 (17.5) 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 collective overall copper tape screen

**Filler**  
PET (Polyethylene Terephthalate) fibres

**Separator**  
Binding tape

**Bedding**  
PVC (Polyvinyl Chloride)

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

**Sheath**  
PVC (Polyvinyl Chloride)

**Sheath Colour**  
● Red ● Black

## STANDARDS

BS 6622, IEC/EN 60228

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

## THE CABLE LAB<sup>®</sup>

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](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.	NUMBER OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	MINIMUM THICKNESS mm		NOMINAL THICKNESS OF SEMI CONDUCTIVE LAYER mm		NOMINAL DIAMETER mm		NOMINAL WEIGHT kg/km
			Insulation	Outer sheath	Inner	Outer	Over insulation	Overall	
A9M15KV01050*	1	50	3.95	1.32	0.50	0.80	19.50	29	1400
A9M15KV01070*	1	70	3.95	1.40	0.50	0.80	21.10	31	1700
A9M15KV01095*	1	95	3.95	1.48	0.50	0.80	22.80	34	2100
A9M15KV01120*	1	120	3.95	1.48	0.50	0.80	24.10	35	2350
A9M15KV01150*	1	150	3.95	1.56	0.50	0.80	26.00	37	2700
A9M15KV01185*	1	185	3.95	1.56	0.50	0.80	27.30	39	3200
A9M15KV01240*	1	240	3.95	1.64	0.50	0.80	30.00	42	3750
A9M15KV01300*	1	300	3.95	1.72	0.50	0.80	32.10	45	4600
A9M15KV01400*	1	400	3.95	1.80	0.50	0.80	35.00	48	5500
A9M15KV01500*	1	500	3.95	1.88	0.50	0.80	38.00	51	6750
A9M15KV01630*	1	630	3.95	1.96	0.50	0.80	42.10	56	8200
A9M15KV03050*	3	50	3.95	2.12	0.50	0.80	19.50	57	5500
A9M15KV03070*	3	70	3.95	2.20	0.50	0.80	21.10	61	6500
A9M15KV03095*	3	95	3.95	2.28	0.50	0.80	22.80	65	7600
A9M15KV03120*	3	120	3.95	2.36	0.50	0.80	24.10	68	8600
A9M15KV03150*	3	150	3.95	2.52	0.50	0.80	26.00	74	10500
A9M15KV03185*	3	185	3.95	2.60	0.50	0.80	27.30	77	11900
A9M15KV03240*	3	240	3.95	2.76	0.50	0.80	30.00	83	14200
A9M15KV03300*	3	300	3.95	2.84	0.50	0.80	32.10	88	16600
A9M15KV03400*	3	400	3.95	3.08	0.50	0.80	35.00	95	19700
A9M15KV03500*	3	500	3.95	3.24	0.50	0.80	38.00	103	23600

\* Designates the sheath colour. For each Eland Cables part number replace with the colour code as listed below e.g. A9M15KV01050RD = 50mm<sup>2</sup> Red

## COLOUR CODES

COLOUR CODE	Red	Black
	RD	BK



## CONDUCTORS

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

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL DIAMETER OF CONDUCTOR	NOMINAL SHORT CIRCUIT CURRENT AT 1 SECOND kA	CONDUCTOR DC RESISTANCE AT 20 °C Ω/km	CONDUCTOR AC RESISTANCE AT 90 °C Ω/km
50	8.10	7.15	0.387	0.497
70	9.70	10.01	0.268	0.344
95	11.40	13.59	0.193	0.248
120	12.70	17.16	0.153	0.196
150	14.50	21.45	0.124	0.160
185	15.90	26.46	0.0991	0.128
240	18.60	34.32	0.0754	0.098
300	20.70	42.90	0.0601	0.080
400	23.50	57.20	0.0470	0.064
500	26.50	71.50	0.0366	0.0510
630	30.20	90.09	0.0283	0.0420

## ELECTRICAL CHARACTERISTICS

### Current Carrying Capacity

NUMBER OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	CURRENT CARRYING CAPACITY A		CONDUCTOR LOSSES IN THE GROUND kW/km
		In ground (20 °C)	In air (30 °C)	
1	50	249	277	30.81
1	70	303	345	31.58
1	95	358	418	31.78
1	120	404	481	31.99
1	150	441	537	31.12
1	185	493	612	31.11
1	240	563	716	31.06
1	300	626	811	31.35
1	400	676	901	29.25
1	500	743	1006	28.15
1	630	-	-	-
3	50	210	206	65.75
3	70	256	257	67.63
3	95	307	313	70.12
3	120	349	360	71.62
3	150	392	410	73.76
3	185	443	469	75.36
3	240	513	553	77.40
3	300	576	635	79.60
3	400	650	731	81.10
3	500	-	-	-



## 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.