



# BS 7870-4.10 Aluminium MDPE 6.35/11 (12)kV Cable



Eland Product Group: E9XA

## APPLICATION

Medium Voltage cable for power distribution and power supply stations used in Utility and Industrial applications, for the rated voltage of 6.35/11 (12)kV.

## CHARACTERISTICS

**Voltage Rating** U<sub>o</sub>/U  
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  
Maximum screen temperature during S.C: +150°C

### Minimum Bending Radius

20 x overall diameter

## CONSTRUCTION

### Conductor

Class 2 Stranded Aluminium

### Conductor Screen

Semi-conductive extruded XLPE (Cross-linked Polyethylene)  
(Bonded)

### Insulation

XLPE (Cross Linked Polyethylene)

### Insulation Screen

Semi-conductive extruded XLPE (Cross-linked Polyethylene) (Strippable)

### Longitudinal Waterblock

Semi-conductive waterblocking tape

### Metallic Screen

Copper Wires And Open Helix Copper Tape

### Longitudinal Waterblock

Non-conductive waterblocking tape

### Outer Sheath

MDPE (Medium Density Polyethylene)

### Sheath Colour

● Red

## 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 7870-4.10, BS EN 60228, HD620 S2 Part 100 / 110

## 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](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 INSULATION THICKNESS mm	NOMINAL SCREEN SECTIONAL AREA mm <sup>2</sup>	NOMINAL SHEATH THICKNESS mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
E9XA11KV01070	1	70	3.4	35	1.34	27.6	917
E9XA11KV01095	1	95	3.4	35	1.43	29.3	1020
E9XA11KV01120	1	120	3.4	35	1.43	30.7	1122
E9XA11KV01150	1	150	3.4	35	1.51	33.1	1260
E9XA11KV01185	1	185	3.4	35	1.51	34	1378
E9XA11KV01240	1	240	3.4	35	1.6	36.6	1581
E9XA11KV01300	1	300	3.4	35	1.68	39.1	1810
E9XA11KV01400	1	400	3.4	35	1.77	42	2143
E9XA11KV01500	1	500	3.4	35	1.85	45.5	2521
E9XA11KV01630	1	630	3.4	35	1.94	49.8	3067
E9XA11KV01800	1	800	3.4	35	2.02	54.8	3749

## ELECTRICAL CHARACTERISTICS

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 mF/Km	CHARGING CURRENT A/Km	DIELECTRIC LOSSES W/Km	REACTANCE AT 50 HZ ohm/km	S.C.C FOR 1 SEC KA		CURRENT RATING A	
							Conductor	Screen	Laid in ground	Laid in free air
70	0.443	0.569	0.293	0.584	14.84	0.126	6.559	4.1	225	231
95	0.32	0.411	0.324	0.647	16.42	0.121	8.9015	4.1	278	276
120	0.253	0.325	0.353	0.704	17.89	0.116	11.244	4.1	317	324
150	0.206	0.265	0.398	0.795	20.19	0.110	14.055	4.1	350	365
185	0.164	0.211	0.417	0.832	21.13	0.108	17.3345	4.1	395	426
240	0.125	0.161	0.466	0.931	23.64	0.104	22.488	4.1	455	497
300	0.1	0.129	0.514	1.025	26.04	0.101	28.11	4.1	511	575
400	0.0778	0.101	0.569	1.136	28.85	0.097	37.48	4.1	579	669
500	0.0605	0.079	0.637	1.271	32.28	0.094	46.85	4.1	661	782
630	0.0469	0.062	0.721	1.438	36.54	0.092	59.031	4.1	770	904
800	0.0367	0.049	0.819	1.635	41.52	0.088	74.96	4.1	885	1037

Laying conditions at trefoil formation are as below:

- Soil thermal resistivity 120 °C.Cm/Watt
- Burial depth 0.5 m
- Ground temperature 15°C | Air temperature 25°C | Frequency 50 Hz