



**ELAND[®]
CABLES**

BS 7870-4.10 Aluminium MDPE 19/33 (36)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 19/33 (36)kV.

CHARACTERISTICS

Voltage Rating U₀/U
19/33 (36)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

●Black

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



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 ²	NOMINAL INSULATION THICKNESS mm	NOMINAL SCREEN SECTIONAL AREA mm ²	NOMINAL SHEATH THICKNESS mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
E9XA33KV01070	1	70	8.0	35	1.6	37.4	1344
E9XA33KV01095	1	95	8.0	35	1.68	39.1	1473
E9XA33KV01120	1	120	8.0	35	1.68	40.5	1596
E9XA33KV01150	1	150	8.0	35	1.77	42.9	1767
E9XA33KV01185	1	185	8.0	35	1.77	43.8	1900
E9XA33KV01240	1	240	8.0	35	1.85	46.4	2140
E9XA33KV01300	1	300	8.0	35	1.94	48.9	2407
E9XA33KV01400	1	400	8.0	35	2.02	51.8	2784
E9XA33KV01500	1	500	8.0	35	2.11	55.3	3211
E9XA33KV01630	1	630	8.0	35	2.19	59.6	3821
E9XA33KV01800	1	800	8.0	35	2.28	64.6	4575

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	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	0.157	0.935	71.04	0.145	6.559	4.1	232	239
95	0.32	0.411	0.17	1.017	77.31	0.139	8.9015	4.1	278	288
120	0.253	0.325	0.183	1.094	83.12	0.134	11.244	4.1	320	332
150	0.206	0.265	0.203	1.213	92.16	0.127	14.055	4.1	354	379
185	0.164	0.211	0.211	1.261	95.85	0.124	17.3345	4.1	405	433
240	0.125	0.161	0.233	1.39	105.61	0.119	22.488	4.1	468	513
300	0.1	0.129	0.253	1.512	114.92	0.115	28.11	4.1	526	590
400	0.0778	0.101	0.277	1.655	125.81	0.110	37.48	4.1	605	685
500	0.0605	0.079	0.306	1.829	139.05	0.106	46.85	4.1	684	803
630	0.0469	0.062	0.343	2.045	155.46	0.103	59.031	4.1	794	933
800	0.0367	0.049	0.385	2.297	174.60	0.099	74.96	4.1	899	1075

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