BS 7870-4.10 Cable
AL/WBT/XLPE/WBT/MDPE 19/33kV

Eland Product Group: E9XA

CHARACTERISTICS

Voltage Rating
19/33 (36) kV

Temperature Range
Maximum Conductor Operating Temperature: +90°C
Maximum Screen Operating Temperature: +80°C
Maximum Conductor Temperature During S.C: +250°C

Minimum Bending Radius
20 x Overall Diameter

CONSTRUCTION

Conductor
Class 2 Stranded Circular Compacted Aluminum

Water Blocking Tape

Inner Semi Conductor
Extruded Inner Semi Conductor (Bonded Type)

Insulation
XLPE (Cross Linked Polyethylene)

Outer Semi Conductor
Extruded Outer Semi Conductor (Bonded Type)

Semi Conducting Water Blocking Tape

Screen
Copper Wires With Open Helix Copper Tape

Non Conductive Water Blocking Tape

Outer Sheath
MDPE (Medium Density Polyethylene)

Sheath Colour
● Black

STANDARDS

BS 7870-4.10, BS EN 60228

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.

ISO/IEC 17025 Accredited Testing Laboratory
IECEE CBTL Accredited Testing Laboratory

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

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®.

RoHS REACH

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm^2	NOMINAL INSULATION THICKNESS mm	NOMINAL CROSS SECTION SCREEN mm^2	NOMINAL OUTER SHEATH THICKNESS mm	NOMINAL OUTER DIAMETER mm	NOMINAL WEIGHT kg/km
E9XA33KV01070	1	70	8	35	2	38	1377
E9XA33KV01095	1	95	8	35	2.1	39.7	1505
E9XA33KV01120	1	120	8	35	2.1	40.1	1635
E9XA33KV01150	1	150	8	35	2.2	43.5	1807
E9XA33KV01185	1	185	8	35	2.2	44.4	1935
E9XA33KV01240	1	240	8	35	2.3	47	2195
E9XA33KV01300	1	300	8	35	2.4	49.6	2468
E9XA33KV01400	1	400	8	35	2.5	52.3	2837
E9XA33KV01500	1	500	8	35	2.6	55.5	3254
E9XA33KV01630	1	630	8	35	2.7	59.6	3839
E9XA33KV01800	1	800	8	35	2.8	64.6	4590
E9XA33KV011000	1	1000	8	35	3	74.1	5869

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm^2	MAXIMUM CONDUCTOR DC RESISTANCE AT 20 °C Ω/km	CONDUCTOR AC RESISTANCE AT MAXIMUM OPERATING TEMPERATURE & 50HZ Ω/km	CAPACITANCE mF/km	CHARGING CURRENT A/km	DIELECTRIC LOSSES W/km	REACTANCE AT 50HZ Ω/km	CONDUCTOR S.C.C. FOR 1 SEC kA	SCREEN S.C.C FOR 1 SEC. kA	CURRENT CARRYING CAPACITY A	
									Laid In Ground	Laid In Free Air
70	0.443	0.5682	0.166	0.99	75.23	0.146	6.61	4.5	216	231
95	0.32	0.4105	0.18	1.072	81.46	0.140	8.98	4.5	258	279
120	0.253	0.3247	0.192	1.148	87.24	0.135	1134	4.5	297	322
150	0.206	0.2646	0.212	1.266	96.25	0.127	14.17	4.5	329	367
185	0.164	0.2109	0.22	1.315	99.92	0.125	17.48	4.5	377	420
240	0.125	0.1611	0.242	1.443	109.67	0.120	22.68	4.5	426	497
300	0.1	0.1293	0.263	1.57	119.36	0.115	28.35	4.5	479	572
400	0.0778	0.1013	0.285	1.703	129.42	0.111	37.79	4.5	551	664
500	0.0605	0.0796	0.312	1.861	141.46	0.107	47.24	4.5	623	778
630	0.0469	0.0629	0.346	2.066	157.05	0.103	59.52	4.5	723	905
800	0.0367	0.0507	0.388	2.318	176.19	0.099	75.59	4.5	819	1042
1000	0.0291	0.0416	0.45	2.689	204.42	0.099	94.48	4.5	908	1186

Laying conditions at trefoil formation are as below:
-Soil Thermal Resistivity: 100°C.Cm/Watt
-Burial Depth: 0.8m
-Ground Temperature: 20°C | Air Temperature: 30°C | Frequency: 50Hz

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