BS 7870-4.10 MDPE 6.35/11 (12)kVCable

Eland Product Group: E9X

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 Uo/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 Copper

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

bsi. Cable Testing Verification KITEMARK™
KM 662609

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.

UKAS 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 mm²	NOMINAL INSULATION THICKNESS mm	NOMINAL SCREEN SECTIONAL AREA mm²	NOMINAL SHEATH THICKNESS mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
E9X11KV01070	1	70	3.4	35	1.34	27.8	1317
E9X11KV01095	1	95	3.4	35	1.43	29.3	1584
E9X11KV01120	1	120	3.4	35	1.43	30.7	1832
E9X11KV01150	1	150	3.4	35	1.51	32.5	2129
E9X11KV01185	1	185	3.4	35	1.51	34	2471
E9X11KV01240	1	240	3.4	35	1.6	36.6	3038
E9X11KV01300	1	300	3.4	35	1.68	39.2	3639
E9X11KV01400	1	400	3.4	35	1.77	42	4472
E9X11KV01500	1	500	3.4	35	1.85	45.6	5473
E9X11KV01630	1	630	3.4	35	1.94	50.1	6867
E9X11KV01800	1	800	3.4	35	2.02	54.4	8654

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm²	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	0.268	0.342	0.297	0.593	15.05	0.125	10.01	4.1	292	295
95	0.193	0.247	0.324	0.647	16.42	0.121	13.585	4.1	347	356
120	0.153	0.196	0.353	0.704	17.89	0.116	17.16	4.1	394	412
150	0.124	0.159	0.386	0.77	19.56	0.112	21.45	4.1	441	466
185	0.0991	0.128	0.417	0.832	21.13	0.108	26.455	4.1	498	536
240	0.0754	0.098	0.466	0.931	23.64	0.104	34.32	4.1	575	634
300	0.0601	0.078	0.516	1.029	26.14	0.101	42.9	4.1	646	729
400	0.047	0.062	0.569	1.136	28.85	0.097	57.2	4.1	727	840
500	0.0366	0.049	0.639	1.275	32.38	0.094	71.5	4.1	815	966
630	0.0283	0.039	0.727	1.451	36.85	0.091	90.09	4.1	904	1098
800	0.0221	0.032	0.811	1.618	41.11	0.088	114.4	4.1	988	1234

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

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