YHAKXS Cable

Eland Product Group: P9X

APPLICATION

Medium voltage cables for distribution networks; also for connection to generation units and plant and process connection. To be laid directly in ground, outdoors, indoors and in cable ducts.

CHARACTERISTICS

Voltage Rating Uo/U (Um)
6/10 (12)kV
12/20 (24)kV
18/30 (36)kV

Temperature Rating
Fixed: -20°C to +90°C

Minimum Bending Radius
15 x overall diameter

CONSTRUCTION

Conductor
Class 2 stranded aluminium conductor

Conductor Screen
Semi-conductive material

Insulation
XLPE (Cross-Linked Polyethylene)

Insulation Screen
Semi-conductive material

Screen
Copper wires

Sheath
PVC (Polyvinyl Chloride)

Sheath Colour
Red

STANDARDS

IEC 60502-2, Generally to PN HD 620 10R
Flame Retardant according to IEC/EN 60332-1-2

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 6/10 (12)kV

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²		NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
		Conductor	Copper Wire Screen		
P9XA10KV1035	1	35	16	28	700
P9XA10KV1050	1	50	16	29	750
P9XA10KV1070	1	70	16	31	850
P9XA10KV1095	1	95	16	32	950
P9XA10KV1120	1	120	16	34	1050
P9XA10KV1150	1	150	25	35	1300
P9XA10KV1185	1	185	25	37	1400
P9XA10KV1240	1	240	25	39	1650
P9XA10KV1300	1	300	25	40	1850
P9XA10KV1400	1	400	35	45	2300

ELECTRICAL CHARACTERISTICS 6/10 (12)kV

NOMINAL CROSS SECTIONAL AREA mm²		CURRENT CARRYING CAPACITY Amps	
Conductor	Copper Wire Screen	In Ground	In Air
35	16	145	153
50	16	171	183
70	16	208	228
95	16	248	278
120	16	283	321
150	25	315	364
185	25	357	418
240	25	413	494
300	25	466	568
400	35	529	660

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DIMENSIONS 12/20 (24)kV

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²	NOMINAL SCREEN CROSS SECTIONAL AREA mm²	NOMINAL INSULATION THICKNESS mm	NOMINAL SHEATH THICKNESS mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
P9XA20KV1050	1	50	16	5.5	1.8	26	780
P9XA20KV1070	1	70	16	5.5	1.9	27.8	899
P9XA20KV1095	1	95	16	5.5	1.9	29.3	1003
P9XA20KV1120	1	120	16	5.5	2	30.9	1130
P9XA20KV1150	1	150	25	5.5	2	33.3	1355
P9XA20KV1185	1	185	25	5.5	2.1	34.2	1467
P9XA20KV1240	1	240	25	5.5	2.2	36.8	1705
P9XA20KV1300	1	300	25	5.5	2.2	39.1	1936
P9XA20KV1400	1	400	35	5.5	2.3	42.1	2384
P9XA20KV1500	1	500	35	5.5	2.4	45.3	2782
P9XA20KV1630	1	630	35	5.5	2.5	50.4	3414
P9XA20KV1800	1	800	35	5.5	2.7	55.6	4170

ELECTRICAL CHARACTERISTICS 12/20 (24)kV

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 µF/Km	CHARGING CURRENT A/Km	DIELECTRIC LOSSES W/Km	REACTANCE AT 50 HZ ohm/km	CONDUCTOR S.C.C FOR 1 SEC KA	COPPER SCREEN S.C.C FOR 1 SEC KA	CURRENT RATING A	
									Laid in ground	Laid in free air
50	0.641	0.822	0.184	0.693	33.24	0.133	4.685	1.75	181	188
70	0.443	0.569	0.206	0.777	37.28	0.126	6.559	1.75	222	235
95	0.32	0.411	0.227	0.855	41.03	0.121	8.9015	1.75	266	284
120	0.253	0.325	0.246	0.928	44.52	0.117	11.244	1.75	307	328
150	0.206	0.265	0.276	1.041	49.96	0.111	14.055	2.73	339	372
185	0.164	0.211	0.288	1.087	52.18	0.109	17.3345	2.73	388	428
240	0.125	0.161	0.321	1.21	58.08	0.104	22.488	2.73	437	509
300	0.1	0.129	0.352	1.328	63.72	0.101	28.11	2.73	488	586
400	0.0778	0.101	0.387	1.46	70.09	0.097	37.48	3.82	564	680
500	0.0605	0.079	0.428	1.613	77.41	0.094	46.85	3.82	634	798
630	0.0469	0.062	0.494	1.861	89.35	0.092	59.031	3.82	742	920
800	0.0367	0.049	0.558	2.104	101.02	0.089	74.96	3.82	840	1060

Laying conditions at trefoil formation are as below:

-Soil thermal resistivity 100 °C.Cm/Watt

-Burial depth 0.8 m

-Ground temperature 20 °C

-Air temperature 30 °C

-Frequency 50 Hz

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DIMENSIONS 18/30 (36)kV

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²		NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
		Conductor	Copper Wire Screen		
P9XA30KV1050	1	50	16	41	1190
P9XA30KV1070	1	70	16	42	1315
P9XA30KV1095	1	95	16	43	1450
P9XA30KV1120	1	120	16	45	1580
P9XA30KV1150	1	150	25	47	1800
P9XA30KV1185	1	185	25	49	1965
P9XA30KV1240	1	240	25	51	2230
P9XA30KV1300	1	300	25	53	2470
P9XA30KV1400	1	400	35	56	2920

ELECTRICAL CHARACTERISTICS 18/30 (36)kV

NOMINAL CROSS SECTIONAL AREA mm²		CURRENT CARRYING CAPACITY Amps	
		In Trefoil	
Conductor	Copper Wire Screen	In Ground	In Air
50	16	175	187
70	16	214	232
95	16	256	281
120	16	290	323
150	25	324	365
185	25	366	418
240	25	426	494
300	25	479	564
400	35	545	654

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