



N2XS(F)H 6/10 (12)kV Cable



Eland Product Group: A9X

APPLICATION

Medium voltage power cables for distribution networks and generation units. LSZH outer sheathing makes the cable suitable for internal installation as well as directly in ground, outdoors, and in cable ducts. UV Resistant.

CHARACTERISTICS

Voltage Rating U_0/U (Um)
6/10 (12)kV

Test Voltage:
21kV AC 50Hz (5 mins)

Temperature Rating
-20°C to +60°C
Permissible Conductor Operating Temperature: +90°C
Permissible Short Circuit Temperature up to 5 sec: 250°C

Minimum Bending Radius
15 x overall diameter

CONSTRUCTION

Conductor
Class 2 Stranded Copper

Conductor Screen
Semi-conductive material

Insulation
XLPE (Cross-Linked Polyethylene)

Insulation Screen
Semi-conductive material (bonded)

Longitudinal Waterblocking
Semi-conductive swellable tape

Screen
Copper wires and copper tape

Longitudinal Waterblocking
Swellable Tapes

Outer Sheath
LSZH (Low Smoke Zero Halogen)

Sheath Colour
● Red ● Black

STANDARDS

IEC 60502-2, IEC 60228,
Low Smoke Zero Halogen: IEC 60754-1/2, IEC 61034-2
Flame Retardant: IEC 60332-3-24 Cat C, IEC 60332-1-2
UV Resistant: ISO 4892-3
Abrasion and Tear Resistant: EN 60229-4.1
Impact rated to: AG2 EN 60364-5.51

THE CABLE LAB[®]

AN ISO/IEC 17025 AND IEC 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



SCIENCE
BASED
TARGETS

**BUSINESS
AMBIITION FOR 1.5°C**



REGULATORY COMPLIANCE

This cable is compliant with European Regulation EN 50575, the Construction Products Regulation.



This cable meets the requirements of the Low Voltage Directive 2014/35/EU, 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		NOMINAL CONDUCTOR DIAMETER	NUMBER WIRES CONDUCTOR	NOM. THICKNESS SEMI-CON. LAYER		NOMINAL INSULATION THICKNESS	MINIMUM INSULATION THICKNESS	NOMINAL DIAMETER OVER INSULATION
		mm ²				INNER	OUTER			
		Conductor	Screen							
A9XHF10KV1050RDC	1	50	16	8.10	10 x 2.62	0.50	0.40	3.40	2.96	16.3
A9XHF10KV1070RDC	1	70	16	9.70	14 x 2.62	0.50	0.40	3.40	2.96	17.9
A9XHF10KV1095RDC	1	95	16	11.4	19 x 2.62	0.50	0.40	3.40	2.96	19.6
A9XHF10KV1120RDC	1	120	16	12.7	19 x 2.97	0.50	0.40	3.40	2.96	20.9
A9XHF10KV1150RDC	1	150	25	14.5	19 x 3.20	0.50	0.40	3.40	2.96	22.7
A9XHF10KV1185RDC	1	185	25	15.9	27 x 2.62	0.50	0.40	3.40	2.96	24.1
A9XHF10KV1240RDC	1	240	25	18.6	48 x 2.62	0.50	0.40	3.40	2.96	26.8
A9XHF10KV1300RDC	1	300	25	20.7	61 x 2.62	0.50	0.40	3.40	2.96	28.9
A9XHF10KV1400RDC	1	400	35	23.5	61 x 2.97	0.50	0.40	3.40	2.96	31.7
A9XHF10KV1500RDC	1	500	35	26.5	61 x 3.29	0.50	0.40	3.40	2.96	34.7
A9XHF10KV1630RDC	1	630	35	30.2	61 x 3.80	0.50	0.40	3.40	2.96	38.9

NOMINAL CROSS SECTIONAL AREA mm ²	NUMBER WIRES SCREEN mm	DIAMETER TAPE SCREEN mm	NOMINAL SHEATH THICKNESS mm	MINIMUM SHEATH THICKNESS mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	MAXIMUM SIDEWALL PRESSURE N/cm ²	MAXIMUM PULLING TENSION N
50	44 x 0.66	1x0.1x10	1.80	1.24	22	850	554	2500
70	44 x 0.66	1x0.1x10	1.80	1.24	24	1100	692	3500
95	44 x 0.66	1x0.1x10	1.80	1.24	26	1300	847	4750
120	44 x 0.66	1x0.1x10	1.80	1.24	27	1600	1008	6000
150	71 x 0.66	1x0.1x10	1.90	1.32	29	2000	1149	7500
185	71 x 0.66	1x0.1x10	1.90	1.32	30	2250	1344	9250
240	71 x 0.66	1x0.1x10	2.00	1.40	33	3000	1550	12000
300	71 x 0.66	1x0.1x10	2.10	1.48	36	3500	1764	15000
400	60 x 0.85	1x0.1x15	2.20	1.56	39	4500	2133	20000
500	60 x 0.85	1x0.1x15	2.30	1.64	42	5500	2443	25000
630	60 x 0.85	1x0.1x15	2.40	1.72	46	6750	2756	31500



ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	CONDUCTOR DC RESISTANCE AT 20°C	CONDUCTOR DC RESISTANCE AT 75°C	CONDUCTOR AC RESISTANCE BY MAX TEMP	CURRENT CARRYING CAPACITY (A)		REACTANCE	CHARGING ADMITTANCE	CAPACITANCE	S.C.C CONDUCTOR 1SEC kA	S.C.C SCREEN 1SEC kA	CONDUCTOR LOSSES IN THE GROUND
	ohms/km	ohms/km	ohms/km	In Ground 20°C	In Air 30°C	ohms/km	A/km	uF/km		kA	kW/km
50	0.387	0.801	0.497	249	277	0.18	0.36	0.21	7.15	3.2	30.8
70	0.268	0.555	0.344	303	345	0.17	0.34	0.24	10.1	3.2	31.6
95	0.193	0.399	0.248	358	418	0.16	0.31	0.30	13.59	3.2	32.0
120	0.153	0.316	0.196	404	481	0.16	0.31	0.30	17.16	3.2	32.0
150	0.124	0.160	0.256	441	537	0.16	0.30	0.33	21.45	5.0	31.1
185	0.0991	0.205	0.128	493	612	0.16	0.29	0.35	26.46	5.0	31.1
240	0.0754	0.156	0.0980	563	716	0.15	0.28	0.40	34.32	5.0	31.1
300	0.0601	0.124	0.0800	626	811	0.15	0.27	0.44	42.90	5.0	31.4
400	0.0470	0.0974	0.0640	676	901	0.15	0.27	0.49	57.20	7.1	29.2
500	0.0366	0.0758	0.0510	743	1006	0.15	0.28	0.54	71.50	7.1	28.2
630	0.0283	0.0420	0.0586	850	1030	0.14	0.25	0.62	90.09	7.1	30.3

Derating factor (ground): 1 (Soil thermal resistivity: 1km/W, Depth 0.8m, Flat formation - touching)

Derating factor (air): 1 (Flat formation - touching)