

N2XS(FL)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 Uo/U (Um)
6/10 (12)kV

Test Voltage
21kV AC 50Hz (15 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

Radial Waterblocking
Al/PET (Aluminium/Polyester) tape tightly bonded to sheath

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: EN 60332-3-24 Cat C, IEC 60332-1-2
UV Resistant: EN 50396
Abrasion and Tear Resistant: EN 60229-4.1
Impact rated to: AG2 EN 60364-5.51

THE CABLE LAB[®]

AN ISO/IEC 17025 AND IECBB 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
AMBITION 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 2015/85/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 CONDUCTOR DIAMETER mm	NUMBER WIRES CONDUCTOR mm	NOM. THICKNESS SEMI-CON. LAYER		NOMINAL INSULATION THICKNESS mm	MINIMUM INSULATION THICKNESS mm	NOMINAL DIAMETER OVER INSULATION mm
		Conductor	Screen			INNER mm	OUTER mm			
A9XHL10KV1050RDC	1	50	16	8.1	10x2.62	0.5	0.4	3.4	2.96	16.3
A9XHL10KV1070RDC	1	70	16	9.7	14x2.62	0.5	0.4	3.4	2.96	17.9
A9XHL10KV1095RDC	1	95	16	11.4	19x2.62	0.5	0.4	3.4	2.96	19.6
A9XHL10KV1120RDC	1	120	16	12.7	19x2.97	0.5	0.4	3.4	2.96	20.9
A9XHL10KV1150RDC	1	150	25	14.5	19x3.20	0.5	0.4	3.4	2.96	22.7
A9XHL10KV1185RDC	1	185	25	15.9	37x2.62	0.5	0.4	3.4	2.96	24.1
A9XHL10KV1240RDC	1	240	25	18.6	48x2.62	0.5	0.4	3.4	2.96	26.8
A9XHL10KV1300RDC	1	300	25	20.7	61x2.62	0.5	0.4	3.4	2.96	28.9
A9XHL10KV1400RDC	1	400	35	23.5	61x2.97	0.5	0.4	3.4	2.96	31.7
A9XHL10KV1500RDC	1	500	35	26.5	61x3.29	0.5	0.4	3.4	2.96	34.7
A9XHL10KV1630RDC	1	630	35	30.2	61x3.80	0.5	0.4	3.4	2.96	38.9

NOMINAL CROSS SECTIONAL AREA mm ²	NUMBER WIRES SCREEN n x 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	44x0.66	1x0.1x10	1.8	1.24	23	950	536	2500
70	44x0.66	1x0.1x10	1.8	1.24	25	1200	672	3500
95	44x0.66	1x0.1x10	1.8	1.24	26	1400	847	4750
120	44x0.66	1x0.1x10	1.8	1.24	28	1700	983	6000
150	71x0.66	1x0.1x10	1.9	1.32	30	2000	1124	7500
185	71x0.66	1x0.1x10	1.9	1.32	31	2500	1315	9250
240	71x0.66	1x0.1x10	2	1.40	34	3000	1521	12000
300	71x0.66	1x0.1x10	2.1	1.48	36	3750	1764	15000
400	60x0.85	1x0.1x15	2.2	1.56	39	4500	2133	20000
500	60x0.85	1x0.1x15	2.3	1.64	43	5750	2398	25000
630	60x0.85	1x0.1x15	2.4	1.72	47	7000	2720	31500



ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	CONDUCTOR DC RESISTANCE AT 20°C ohms/km	CONDUCTOR DC RESISTANCE AT 75°C ohms/km	CONDUCTOR AC RESISTANCE BY MAX TEMP ohms/km	NOMINAL INSULATION THICKNESS mm		REACTANCE ohms/km	CHARGING ADMITTANCE A/km	CAPACITANCE uF/km	S.C.C CONDUCTOR 1SEC kA	CONDUCTOR LOSSES IN THE GROUND kW/km
				In Ground 20°C	In Air 30°C					
50	0.387	0.801	0.497	249	277	0.18	0.36	0.21	7.15	30.8
70	0.268	0.555	0.344	303	345	0.18	0.34	0.24	10.01	31.6
95	0.193	0.399	0.248	358	418	0.17	0.33	0.27	13.59	31.8
120	0.153	0.316	0.196	404	481	0.17	0.32	0.30	17.16	32.0
150	0.124	0.256	0.160	441	537	0.16	0.30	0.33	21.45	31.1
185	0.0991	0.205	0.128	493	612	0.16	0.30	0.35	26.46	31.1
240	0.0754	0.156	0.0980	563	716	0.15	0.28	0.40	34.32	31.1
300	0.0601	0.124	0.0800	626	811	0.15	0.28	0.44	42.90	31.4
400	0.0470	0.0974	0.0640	676	901	0.15	0.27	0.49	57.20	29.2
500	0.0366	0.0758	0.0510	743	1006	0.15	0.26	0.54	71.50	28.2
630	0.0283	0.0586	0.0420	850	1030	0.14	0.26	0.62	90.09	30.3

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

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

The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.