

N2XS(F)2Y 18/30 (36)kV Cable



Eland Product Group: A9X

APPLICATION

Medium voltage power cables for distribution networks and generation units, suitable for external installation including direct buried and in buried cable ducts. UV Resistant.

STANDARDS

IEC 60502-2, IEC 60228,
UV Resistant: ISO 4892-3
Abrasion and Tear Resistance to: EN 60229-4.1
Impact rated to: AG2 EN 60364-5.51

CHARACTERISTICS

Voltage Rating U_0/U (U_m)
18/30 (36)kV

Test Voltage:
63kV 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

THE CABLE LAB[®]

AN ISO/IEC 17025 AND IECCE 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[®].



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
MDPE (Medium Density Polyethylene)

Sheath Colour
● Red ● Black



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			
A9XF30KV1050**	1	50	16	8.10	10 x 2.62	0.50	0.40	8.00	7.10	25.1
A9XF30KV1070**	1	70	16	9.70	14 x 2.62	0.50	0.40	8.00	7.10	26.7
A9XF30KV1095**	1	95	16	11.4	19 x 2.62	0.50	0.40	8.00	7.10	28.4
A9XF30KV1120**	1	120	16	12.7	19 x 2.97	0.50	0.40	8.00	7.10	29.7
A9XF30KV1150**	1	150	25	14.5	19 x 3.20	0.50	0.40	8.00	7.10	31.5
A9XF30KV1185**	1	185	25	15.9	27 x 2.62	0.50	0.40	8.00	7.10	32.9
A9XF30KV1240**	1	240	25	18.6	48 x 2.62	0.50	0.40	8.00	7.10	35.6
A9XF30KV1300**	1	300	25	20.7	61 x 2.62	0.50	0.40	8.00	7.10	37.7
A9XF30KV1400**	1	400	35	23.5	61 x 2.97	0.50	0.40	8.00	7.10	40.5
A9XF30KV1500**	1	500	35	26.5	61 x 3.29	0.50	0.40	8.00	7.10	43.5
A9XF30KV1630**	1	630	35	30.2	61 x 3.80	0.50	0.40	8.00	7.10	47.7

** replace with sheath colour - RD = Red BK = Black

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	2.00	1.40	32	1200	426	2500
70	44 x 0.66	1x0.1x10	2.00	1.40	33	1500	546	3500
95	44 x 0.66	1x0.1x10	2.10	1.48	35	1800	682	4750
120	44 x 0.66	1x0.1x10	2.10	1.48	36	2000	821	6000
150	71 x 0.66	1x0.1x10	2.20	1.56	38	2500	952	7500
185	71 x 0.66	1x0.1x10	2.20	1.56	40	2750	1103	9250
240	71 x 0.66	1x0.1x10	2.30	1.64	43	3500	1299	12000
300	71 x 0.66	1x0.1x10	2.40	1.72	45	4000	1522	15000
400	60 x 0.85	1x0.1x15	2.50	1.80	48	5000	1885	20000
500	60 x 0.85	1x0.1x15	2.60	1.88	51	6000	2151	25000
630	60 x 0.85	1x0.1x15	2.70	1.96	56	7500	2465	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	251	279	0.20	0.43	0.12	7.15	3.2	31.3
70	0.268	0.555	0.344	306	348	0.19	0.41	0.13	10.1	3.2	32.2
95	0.193	0.399	0.248	363	421	0.19	0.39	0.14	13.59	3.2	32.7
120	0.153	0.316	0.196	410	483	0.18	0.37	0.15	17.16	3.2	32.9
150	0.124	0.160	0.256	449	540	0.18	0.36	0.17	21.45	5.0	32.3
185	0.0991	0.205	0.128	503	615	0.17	0.35	0.17	26.46	5.0	32.4
240	0.0754	0.156	0.0980	576	718	0.17	0.33	0.20	34.32	5.0	32.5
300	0.0601	0.124	0.0800	641	812	0.17	0.32	0.21	42.90	5.0	32.9
400	0.0470	0.0974	0.0640	697	904	0.16	0.31	0.24	57.20	7.1	31.1
500	0.0366	0.0758	0.0510	768	1011	0.16	0.30	0.26	71.50	7.1	30.1
630	0.0283	0.0420	0.0586	850	1030	0.15	0.29	0.29	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)