



# N2XS(F)H 18/30 (36)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)  
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

## 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 to: 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

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0V5XPSMEDMBTTUFTUOHGBD5UJZFRVBMUJBOEDPNQMBODFPGUIJDBC MF  
UISPVHIBDPOUDVPVTBOESJHRSPTUOHSFHN F



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8FBSPBOKPVSOFP/FUFSP

8FhWFDPNNUFEUPOFBUSFNFNJTPOTSFEVDUPOTBOEBOFUFSUBSHFUXWJ  
4DFODFBTFE5BSHFUUDWBUWFBOEXFhSFBTHOBUPSUPUIF6OWFE/BUPT(MPCBM  
BNQBDU4VTUBDCMFWFMPQNFU(PBMT

-FBSONPSFBPCVUFNCPEFEDBSCPOBOBBSPOFNJTPOTSFEVDUPBDUPOT  
PVSDPNQSFIFOTWVFSFDOMHTFSWDFBOEXEFS&4(BDUVWJFTGPSTVTUBDCM  
PQFSBUPTOXFMBOEDEBCMFTDPNDPNQBOBCPVUVTFTHTVTUBDCMWZ



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5ITDBCMTDPNQMBOUXJIVSQFBO37BUPO&UIFROTUSVDUPO  
1SPEVDUT3FHVMBUPO



5ITDBCMTNFUTUIFSFRV\$FNFOUPTGUFIF-3P)48FDUWF&6BOE  
3FBDI8FDUWF & 3P)4 DPNQMBODF IBT CFFO UFTUFE BOE  
DPO SNFEC8IFBCMF-BC 0



## 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 <sup>2</sup>				INNER	OUTER			
		Conductor	Screen							
A9XF30KV1050RDC	1	50	16	8.10	10 x 2.62	0.50	0.40	8.00	7.10	25.1
A9XF30KV1070RDC	1	70	16	9.70	14 x 2.62	0.50	0.40	8.00	7.10	26.7
A9XF30KV1095RDC	1	95	16	11.4	19 x 2.62	0.50	0.40	8.00	7.10	28.4
A9XF30KV1120RDC	1	120	16	12.7	19 x 2.97	0.50	0.40	8.00	7.10	29.7
A9XF30KV1150RDC	1	150	25	14.5	19 x 3.20	0.50	0.40	8.00	7.10	31.5
A9XF30KV1185RDC	1	185	25	15.9	27 x 2.62	0.50	0.40	8.00	7.10	32.9
A9XF30KV1240RDC	1	240	25	18.6	48 x 2.62	0.50	0.40	8.00	7.10	35.6
A9XF30KV1300RDC	1	300	25	20.7	61 x 2.62	0.50	0.40	8.00	7.10	37.7
A9XF30KV1400RDC	1	400	35	23.5	61 x 2.97	0.50	0.40	8.00	7.10	40.5
A9XF30KV1500RDC	1	500	35	26.5	61 x 3.29	0.50	0.40	8.00	7.10	43.5
A9XF30KV1630RDC	1	630	35	30.2	61 x 3.80	0.50	0.40	8.00	7.10	47.7

NOMINAL CROSS SECTIONAL AREA	NUMBER WIRES SCREEN	DIAMETER TAPE SCREEN	NOMINAL SHEATH THICKNESS	MINIMUM SHEATH THICKNESS	NOMINAL OVERALL DIAMETER	NOMINAL WEIGHT	MAXIMUM SIDEWALL PRESSURE	MAXIMUM PULLING TENSION
mm <sup>2</sup>	mm	mm	mm	mm	mm	kg/km	N/cm <sup>2</sup>	N
50	44 x 0.66	1x0.1x10	2.00	1.40	32	1200	416	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	2436	31500



## ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	CONDUCTOR DC RESISTANCE AT 20°C ohms/km	CONDUCTOR DC RESISTANCE AT 75°C ohms/km	CONDUCTOR AC RESISTANCE BY MAX TEMP ohms/km	CURRENT CARRYING CAPACITY (A)		REACTANCE ohms/km	CHARGING ADMITTANCE A/km	CAPACITANCE uF/km	S.C.C CONDUCTOR 1SEC kA	S.C.C SCREEN 1SEC kA	CONDUCTOR LOSSES IN THE GROUND kW/km
				In Ground 20°C	In Air 30°C						
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	0.38	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	0.18	0.35	0.18	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	0.16	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)

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.