



# FR-N20XA8E-AR 18/30kV Cable

## NF C 33-226 - AL/XLPE/MDPE



Eland Product Group: A9X

### CHARACTERISTICS

**Voltage Rating**  $U_0/U$   
18/30 (36)kV

**Temperature Rating**  
Maximum conductor operating temperature: 90°C  
Initial temperature at S.C.C for metallic screen: 80°C  
Maximum conductor temperature during S.C: 250°C

**Minimum Bending Radius**  
20 x overall diameter

### CONSTRUCTION

**Conductor**  
Class 2 stranded Aluminium

**Conductor Screen**  
Extruded Inner Semi Conductor (Bonded Type)

**Insulation**  
XLPE (Cross-Linked Polyethylene)

**Insulation Screen**  
Extruded Inner Semi Conductor (Strippable Type)

**Waterblocking**  
Semi Conductive Longitudinal Waterblocking Tape

**Aluminium Tape**  
Applied Longitudinally

**Sheath**  
MDPE (Medium Density Polyethylene)

**Sheath Colour**  
● Black

### STANDARDS

NF C 33-226, IEC 60502-2, EN 60228

### THE CABLE LAB<sup>®</sup>

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](http://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<sup>®</sup>.





## DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL SCREEN CROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL CONDUCTOR SCREEN THICKNESS mm	NOMINAL INSULATION THICKNESS mm	NOMINAL INSULATION SCREEN THICKNESS mm	NOMINAL SHEATH THICKNESS mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
A9XANF30KV01050	1	50	18	0.6	6.7	0.7	1.9	30.6	819
A9XANF30KV01070	1	70	20	0.6	6.7	0.7	1.9	32.2	939
A9XANF30KV01095	1	95	21	0.6	6.7	0.7	2	33.9	1062
A9XANF30KV01120	1	120	22	0.6	6.7	0.7	2.1	35.5	1193
A9XANF30KV01150	1	150	23	0.6	6.7	0.7	2.1	37.7	1345
A9XANF30KV01185	1	185	24	0.6	6.7	0.7	2.2	38.8	1477
A9XANF30KV01240	1	240	25	0.6	6.7	0.7	2.2	41.2	1709
A9XANF30KV01300	1	300	27	0.6	6.7	0.7	2.3	43.8	1972
A9XANF30KV01400	1	400	29	0.6	6.7	0.7	2.4	46.5	2334
A9XANF30KV01500	1	500	31	0.6	6.7	0.7	2.5	49.7	2741
A9XANF30KV01630	1	630	34	0.7	6.7	0.7	2.6	54.6	3372
A9XANF30KV01800	1	800	37	0.7	6.7	0.7	2.8	59.8	4132

## ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	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	SCREEN S.C.C FOR 1 SEC KA	CURRENT RATING A	
									Laid in ground	Laid in free air
50	0.641	0.822	0.157	0.887	63.85	0.144	4.72	1.3	175	187
70	0.443	0.5682	0.174	0.986	71.01	0.136	6.61	1.44	216	231
95	0.32	0.4106	0.191	1.079	77.65	0.130	8.98	1.52	258	279
120	0.253	0.3248	0.206	1.164	83.81	0.126	11.34	1.59	297	322
150	0.206	0.2646	0.229	1.297	93.42	0.118	14.17	1.66	329	367
185	0.164	0.2109	0.239	1.352	97.33	0.117	17.48	1.73	377	420
240	0.125	0.1612	0.264	1.496	107.72	0.111	22.68	1.8	426	497
300	0.1	0.1295	0.29	1.64	118.07	0.107	28.35	1.95	479	572
400	0.0778	0.1014	0.316	1.789	128.81	0.104	37.79	2.09	551	664
500	0.0605	0.0798	0.348	1.967	141.66	0.100	47.24	2.24	623	778
630	0.0469	0.0631	0.397	2.246	161.74	0.097	59.52	2.45	723	905
800	0.0367	0.051	0.447	2.53	182.18	0.094	75.59	2.67	819	1042

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

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.