

FR-N20XA8E-AR 12/20kV Cable

NF C 33-226 - AL/XLPE/MDPE



Eland Product Group: A9X

CHARACTERISTICS

Voltage Rating U_0/U
12/20 (24)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 Scree

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
Halogen free to IEC/EN 60754-1
Water resistant to AD7
UV resistant to ISO 4892

THE CABLE LAB®

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



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®.





DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL SCREEN CROSS SECTIONAL AREA mm ²	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
A9XANF20KV01050	1	50	15	0.6	4.5	0.7	1.7	25.8	614
A9XANF20KV01070	1	70	17	0.6	4.5	0.7	1.8	27.6	731
A9XANF20KV01095	1	95	18	0.6	4.5	0.7	1.8	29.1	833
A9XANF20KV01120	1	120	19	0.6	4.5	0.7	1.9	30.7	953
A9XANF20KV01150	1	150	20	0.6	4.5	0.7	1.9	32.9	1090
A9XANF20KV01185	1	185	21	0.6	4.5	0.7	2	34	1212
A9XANF20KV01240	1	240	22	0.6	4.5	0.7	2.1	36.6	1440
A9XANF20KV01300	1	300	24	0.6	4.5	0.7	2.1	39	1674
A9XANF20KV01400	1	400	26	0.6	4.5	0.7	2.3	41.9	2027
A9XANF20KV01500	1	500	28	0.6	4.5	0.7	2.4	45.1	2411
A9XANF20KV01630	1	630	31	0.7	4.5	0.7	2.5	50	3010
A9XANF20KV01800	1	800	34	0.7	4.5	0.7	2.6	55	3718

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	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	0.207	0.78	37.43	0.133	4.72	1.08	175	182
70	0.443	0.5682	0.232	0.876	42.06	0.126	6.61	1.23	216	227
95	0.32	0.4106	0.256	0.966	46.36	0.120	8.98	1.3	258	275
120	0.253	0.3248	0.278	1.049	50.36	0.116	11.34	1.37	297	318
150	0.206	0.2647	0.313	1.18	56.62	0.110	14.17	1.44	329	360
185	0.164	0.211	0.327	1.233	59.18	0.108	17.48	1.52	377	415
240	0.125	0.1613	0.364	1.374	65.97	0.104	22.68	1.59	423	493
300	0.1	0.1296	0.402	1.516	72.75	0.100	28.35	1.73	474	568
400	0.0778	0.1016	0.441	1.662	79.80	0.097	37.79	1.88	547	659
500	0.0605	0.0801	0.487	1.838	88.24	0.094	47.24	2.02	615	774
630	0.0469	0.0635	0.56	2.113	101.45	0.092	59.52	2.24	720	892
800	0.0367	0.0515	0.635	2.394	114.92	0.088	75.59	2.45	815	1028

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.