

FR-N20XA8E-AR AL/XLPE/PE Triplex Cable 12/20kV



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 Screen

Extruded Inner Semi Conductor (Strippable Type)

Waterblocking

Semi Conductive Longitudinal waterblocking Tape

Aluminium Tape

Applied Longitudinally (0.15mm thickness)

Sheath

PE (Polyethylene)

Sheath Colour

● Black

STANDARDS

Gen to NF C 33-226 & HD 620-10G, IEC 60502-2, EN 60228

Halogen Free to: IEC 60754

Impact Resistant to: AG4 EN 60364-5.51

Vibration Resistant to: AH2 EN 60364-5.51

Abrasion and Tear Resistant: EN 60229-4.1

UV Resistant to: AN3 ISO 4892-3

Water Resistant: AD8

Oil Resistant to: ASTM D471

Conductor Flexibility: Stranded class 2

Presence of Corrosive or Polluting Substances to:

AF2 EN 60364-5.51

Termite resistant to: Annex M of NF C33-226

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



SCIENCE
BASED
TARGETS

BUSINESS
AMBITION FOR 1.5°C



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 CONDUCTOR SCREEN THICKNESS mm	NOMINAL INSULATION THICKNESS mm	NOMINAL INSULATION SCREEN THICKNESS mm	MINIMUM SHEATH THICKNESS mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	MAXIMUM PULLING TENSION KN/Phase
A9XANF20KV31050	3x1	50	0.6	5.5	0.7	1.24	60	2109	1.5
A9XANF20KV31070	3x1	70	0.6	5.5	0.7	1.32	63.9	2469	2.1
A9XANF20KV31095	3x1	95	0.6	5.5	0.7	1.32	67.2	2794	2.85
A9XANF20KV31120	3x1	120	0.6	5.5	0.7	1.4	70.6	3171	3.6
A9XANF20KV31150	3x1	150	0.6	5.5	0.7	1.4	75.4	3607	4.5
A9XANF20KV31185	3x1	185	0.6	5.5	0.7	1.48	77.8	4008	5.55
A9XANF20KV31240	3x1	240	0.6	5.5	0.7	1.48	82.9	4681	7.2
A9XANF20KV31300	3x1	300	0.6	5.5	0.7	1.56	88.6	5441	9
A9XANF20KV31400	3x1	400	0.6	5.5	0.7	1.64	94.4	6488	12

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	0.179	0.676	32.45	0.189	4.72	0.85	181	188
70	0.443	0.5682	0.2	0.756	36.27	0.179	6.61	0.9	222	235
95	0.32	0.4106	0.22	0.83	39.83	0.173	8.98	0.95	266	284
120	0.253	0.3248	0.238	0.899	43.13	0.169	11.34	1	307	328
150	0.206	0.2647	0.267	1.006	48.29	0.162	14.17	1.05	339	372
185	0.164	0.211	0.278	1.05	50.39	0.160	17.48	1.11	388	428
240	0.125	0.1613	0.309	1.166	55.98	0.155	22.68	1.21	437	509
300	0.1	0.1296	0.34	1.282	61.55	0.151	28.35	1.26	488	586
400	0.0778	0.1016	0.372	1.403	67.33	0.148	37.79	1.36	564	680

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.