



# FR-N20XA8E-R 12/20kV Cable NF C 33-226 - Cu/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 Copper

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

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

**Insulation Screen**  
Extruded Outer 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
A9XNF20KV01050	1	50	15	0.6	4.5	0.7	1.7	25.8	890
A9XNF20KV01070	1	70	17	0.6	4.5	0.7	1.8	27.8	1131
A9XNF20KV01095	1	95	18	0.6	4.5	0.7	1.8	29.1	1397
A9XNF20KV01120	1	120	19	0.6	4.5	0.7	1.9	30.7	1663
A9XNF20KV01150	1	150	20	0.6	4.5	0.7	1.9	32.3	1957
A9XNF20KV01185	1	185	21	0.6	4.5	0.7	2	34	2317
A9XNF20KV01240	1	240	22	0.6	4.5	0.7	2.1	36.6	2917
A9XNF20KV01300	1	300	24	0.6	4.5	0.7	2.1	39	3499
A9XNF20KV01400	1	400	26	0.6	4.5	0.7	2.3	42	4358
A9XNF20KV01500	1	500	28	0.6	4.5	0.7	2.4	45.6	5392
A9XNF20KV01630	1	630	31	0.7	4.5	0.7	2.5	50.3	6810
A9XNF20KV01800	1	800	34	0.7	4.5	0.7	2.6	54.6	8620

## 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	0.387	0.4937	0.207	0.78	37.43	0.133	7.15	1.08	746	226
70	0.268	0.3421	0.235	0.888	42.63	0.125	10.02	1.23	826	286
95	0.193	0.2466	0.256	0.966	46.36	0.120	13.59	1.3	228	349
120	0.153	0.1958	0.278	1.049	50.36	0.116	17.17	1.37	276	403
150	0.124	0.1591	0.303	1.144	54.92	0.111	21.46	1.44	328	453
185	0.0991	0.1276	0.327	1.233	59.18	0.108	26.47	1.52	374	523
240	0.0754	0.0979	0.364	1.374	65.97	0.104	34.34	1.59	417	618
300	0.0601	0.079	0.402	1.516	72.75	0.100	42.93	1.73	470	713
400	0.047	0.063	0.442	1.668	80.08	0.097	57.23	1.88	527	815
500	0.0366	0.0507	0.495	1.867	89.65	0.094	71.54	2.02	592	941
630	0.0283	0.0412	0.565	2.131	102.29	0.092	90.14	2.24	664	1066
800	0.0221	0.0345	0.629	2.37	113.80	0.089	114.47	2.45	900	1200

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.