

# N2XS(F)H/N2XSE(F)H - 12/20 (24)kV Cable



Eland Product Group: A9X

## APPLICATION

A UV resistant medium voltage cables for distribution networks with additional waterblocking layer available as single core or three-core variants; also for connection to generation units and plant and process connection with Halogen Free materials.

## CHARACTERISTICS

**Voltage Rating**  $U_0/U$  (Um)  
12/20 (24)kV

**Temperature Rating**  
-15°C to +90°C

**Minimum Bending Radius**  
15 x overall diameter

## CONSTRUCTION

**Conductor**  
Class 2 stranded copper

**Inner Semi-Conductive Layer**  
Semi-conductive material

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

**Outer Semi-Conductive Layer**  
Semi-conductive material

**Screen**  
Copper wires and copper tape

**Tape**  
Water-swellaable tape

**Outer Sheath**  
HFFR (Halogen Free Flame Retardant) UV resistant

**Sheath Colour**  
● Red ● Black optional

## STANDARDS

IEC 60502-2, IEC/EN 60228, EN 60332-3-24  
UV Resistant

## ISO/IEC 17025 LABORATORY TESTED

This product is subject to the Quality Assurance protocols of The Cable Lab®, an ISO/IEC 17025 accredited cable testing laboratory. Testing includes vertical flame, conductor resistance, tensile & elongation, and dimensional consistency, verified to published standards and approved product drawings.



## REGULATORY COMPLIANCE

This cable meets the requirements of the RoHS Directive 2011/65/EU. RoHS compliance has been tested and confirmed by The Cable Lab® as meeting the requirements of the BSI RoHS Trusted Kitemark™.





## DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>		NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
		Conductor	Copper Wire Screen		
A9XHF20KV1035RDC	1	35	16	27	1000
A9XHF20KV1050RDC	1	50	16	28	1200
A9XHF20KV1070RDC	1	70	16	30	1400
A9XHF20KV1095RDC	1	95	16	32	1700
A9XHF20KV1120RDC	1	120	16	33	1900
A9XHF20KV1150RDC	1	150	25	35	2300
A9XHF20KV1185RDC	1	185	25	36	2750
A9XHF20KV1240RDC	1	240	25	38	3300
A9XHF20KV1300RDC	1	300	25	41	4000
A9XHF20KV1400RDC	1	400	35	43	4800
A9XHF20KV1500RDC	1	500	35	46	6000
A9XHF20KV1630RDC	1	630	35	51	7300
A9XHF20KV3035RDC	3	35	16	53	3700
A9XHF20KV3050RDC	3	50	16	56	4200
A9XHF20KV3070RDC	3	70	16	61	5100
A9XHF20KV3095RDC	3	95	16	64	6200
A9XHF20KV3120RDC	3	120	16	67	7000
A9XHF20KV3150RDC	3	150	25	72	8400
A9XHF20KV3185RDC	3	185	25	75	9700
A9XHF20KV3240RDC	3	240	25	81	11800
A9XHF20KV3300RDC	3	300	25	86	14000
A9XHF20KV3400RDC	3	400	35	92	17200

## ELECTRICAL CHARACTERISTICS

### Single Core

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	CONDUCTOR AC RESISTANCE BY MAX TEMP	CONDUCTOR DC RESISTANCE AT 20°C	CURRENT CARRYING CAPACITY IN TREFOIL Amps		CONDUCTOR LOSSES IN THE GROUND kW/km
			In Ground	In Air	
Conductor					
35	0.670	0.524	213	233	30.40
50	0.497	0.387	250	279	31.06
70	0.344	0.268	304	347	31.79
95	0.248	0.193	361	420	32.32
120	0.196	0.153	407	483	32.47
150	0.160	0.124	445	540	31.68
185	0.128	0.099	498	614	31.74
240	0.0980	0.0754	569	718	31.73
300	0.0800	0.0601	633	813	32.06
400	0.0640	0.0470	686	904	30.12
500	0.0510	0.0366	756	1011	29.15
630	0.0420	0.0283	848	1160	30.20



## ELECTRICAL CHARACTERISTICS

### Multi Core

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	CONDUCTOR AC RESISTANCE BY MAX TEMP	CONDUCTOR DC RESISTANCE AT 20°C	CURRENT CARRYING CAPACITY IN TREFOIL Amps		CONDUCTOR LOSSES IN THE GROUND kW/km
			In Ground	In Air	
35	0.670	0.524	178	173	63.68
50	0.497	0.387	210	206	65.75
70	0.344	0.268	256	257	67.63
95	0.248	0.193	307	313	70.12
120	0.196	0.153	349	360	71.62
150	0.160	0.124	392	410	73.76
185	0.128	0.099	443	469	75.36
240	0.0980	0.0754	513	553	77.37
300	0.0800	0.0601	576	635	79.63
400	0.0640	0.0470	650	731	81.12

Air ambient temperature: 30°C  
 Ground ambient temperature: 20°C  
 Conductor operating temperature: 90°C  
 Depth of duct: 0.7m  
 Soil thermal resistivity: 1km/W