



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



Eland Product Group: A9X

### APPLICATION

UV resistant Medium voltage cables for distribution networks; also for connection to generation units and plant and process connection. LSZH outer sheathing makes the cable suitable for internal installation as well as directly in ground, outdoors, and in cable ducts. The swellable tape provides additional waterblocking properties, making the cable longitudinally water tight and preventing water propagation along the cable.

### CHARACTERISTICS

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

**Temperature Rating**

-15°C to +90°C

Permissible short-circuit temperature up to 5 sec: +250°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

**Waterblocking Layer**

Water-swellable tape (Longitudinal)

**Waterblocking Layer**

Water-swellable tape (radial) or powder

**Filler**

LSZH (Low Smoke Zero Halogen)

**Sheath**

LSZH (Low Smoke Zero Halogen) UV Resistant

**Sheath Colour**

● Red

### STANDARDS

IEC 60502-2,

Flame Retardant according to EN 60332-1-2

### 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.



8578



FS 672069



EMS 672067



OHS 672066

### 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™.



KM 634267





## 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		
A9XHL20KV1035RDC	1	35	16	28	1100
A9XHL20KV1050RDC	1	50	16	29	1250
A9XHL20KV1070RDC	1	70	16	31	1500
A9XHL20KV1095RDC	1	95	16	33	1800
A9XHL20KV1120RDC	1	120	16	34	2000
A9XHL20KV1150RDC	1	150	25	36	2400
A9XHL20KV1185RDC	1	185	25	37	2800
A9XHL20KV1240RDC	1	240	25	39	3400
A9XHL20KV1300RDC	1	300	25	42	4100
A9XHL20KV1400RDC	1	400	35	44	5000
A9XHL20KV1500RDC	1	500	35	48	6100
A9XHL20KV1630RDC	1	630	35	52	7400
A9XHL20KV3035RDC	3	35	16	52	3300
A9XHL20KV3050RDC	3	50	16	55	3900
A9XHL20KV3070RDC	3	70	16	60	4800
A9XHL20KV3095RDC	3	95	16	63	5800
A9XHL20KV3120RDC	3	120	16	66	6700
A9XHL20KV3150RDC	3	150	25	70	8000
A9XHL20KV3185RDC	3	185	25	73	9200
A9XHL20KV3240RDC	3	240	25	80	11300
A9XHL20KV3300RDC	3	300	25	84	13500
A9XHL20KV3400RDC	3	400	35	90	16500

## ELECTRICAL CHARACTERISTICS

### Single Core

NOMINAL CROSS SECTIONAL AREA OF CONDUCTOR mm <sup>2</sup>	NOMINAL SHORT-CIRCUIT CURRENT FOR 1 SECOND OF CONDUCTOR kA	CONDUCTOR DC RESISTANCE AT 20°C Ohm/km	CONDUCTOR AC RESISTANCE BY MAX. TEMPERATURE Ohm/km	CURRENT CARRYING CAPACITY A		CONDUCTOR LOSSES IN THE GROUND kW/km
				In Ground at 20°C	In Air at 30°C	
35	5.01	0.524	0.670	213	233	30.40
50	7.15	0.387	0.497	250	279	31.06
70	10.01	0.268	0.344	304	347	31.79
95	13.59	0.193	0.248	361	420	32.32
120	17.16	0.153	0.196	407	483	32.47
150	21.45	0.124	0.160	445	540	31.68
185	26.46	0.099	0.128	498	614	31.74
240	34.32	0.0754	0.0980	569	718	31.73
300	42.90	0.0601	0.0800	633	813	32.06
400	57.20	0.0470	0.0640	686	904	30.12
500	71.50	0.0366	0.0510	756	1011	29.15
630	90.09	0.0283	0.0420	848	1160	30.20



Click here for more information:

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## ELECTRICAL CHARACTERISTICS

### Multi Core

NOMINAL CROSS SECTIONAL AREA OF CONDUCTOR mm <sup>2</sup>	NOMINAL SHORT-CIRCUIT CURRENT FOR 1 SECOND OF CONDUCTOR kA	CONDUCTOR DC RESISTANCE AT 20°C Ohm/km	CONDUCTOR AC RESISTANCE BY MAX. TEMPERATURE Ohm/km	CURRENT CARRYING CAPACITY A		CONDUCTOR LOSSES IN THE GROUND kW/km
				In Ground at 20°C	In Air at 30°C	
35	5.01	0.524	0.670	178	173	63.68
50	7.15	0.387	0.497	210	206	65.75
70	10.01	0.268	0.344	256	257	67.63
95	13.59	0.193	0.248	307	313	70.12
120	17.16	0.153	0.196	349	360	71.62
150	21.45	0.124	0.160	392	410	73.76
185	26.46	0.099	0.128	443	469	75.36
240	34.32	0.0754	0.0980	513	553	77.37
300	42.90	0.0601	0.0800	576	635	79.63
400	57.20	0.0470	0.0640	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

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.