NA2XS(F)2Y XLPE MDPE 8.7/15 (17.5) kV Cable

Eland Product Group: C9XA

APPLICATION

Medium Voltage Aluminium MDPE power distribution cable with particular application in wind energy installations. Longitudinally sealed cables for aid protection against water ingress.

CHARACTERISTICS

Voltage Rating Uo/U
8.7/15 (17.5) kV

CONSTRUCTION

Conductor
Class 2 stranded Aluminium

Conductor Screen
Semi-conductive extruded XLPE (Cross-linked Polyethylene)

Insulation
XLPE (Cross-linked Polyethylene)

Insulation Screen
Semi-conductive extruded XLPE (Cross-linked Polyethylene)

Longitudinal Waterblock
Semi-conductive water swelling tape

Metallic Screen
Copper Wires and Tape

Longitudinal Waterblock
Non-conductive water swelling tape

Sheath
MDPE (Medium Density Polyethylene)

Sheath Colour
● Black

STANDARDS

IEC 60502-2, EN 60228

UV Resistant: ISO 4892-3
Abrasion and Tear Resistant: EN 60229-4.1
Impact rated to: AG2 EN 60364-5.51

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 mm²	NOMINAL DIAMETER OF CONDUCTOR mm	INSULATION mm		METALLIC SCREEN		NOMINAL OUTER DIAMETER OF CABLE mm	NOMINAL WEIGHT kg/km	MAXIMUM PULLING FORCE kN	MINIMUM BENDING RADIUS m
				Nominal thickness	Nominal diameter over	Nominal cross section mm²	Nominal diameter over mm				
C9XAF15KV1050	1	50	8.25	4.5	18.5	16	22.6	28.1	720	1.5	0.42
C9XAF15KV1070	1	70	9.5	4.5	19.7	25	23.8	29.4	890	2.1	0.44
C9XAF15KV1095	1	95	11.3	4.5	21.5	35	25.6	31.2	1100	2.85	0.47
C9XAF15KV1120	1	120	12.5	4.5	22.7	50	26.8	32.4	1330	3.6	0.49
C9XAF15KV1150	1	150	14.2	4.5	24.4	50	28.5	34.1	1440	4.5	0.51
C9XAF15KV1185	1	185	15.8	4.5	26.0	50	30.1	35.7	1580	5.55	0.54
C9XAF15KV1240	1	240	17.9	4.5	28.1	50	32.2	37.8	1780	7.2	0.57
C9XAF15KV1300	1	300	20.0	4.5	30.2	50	34.3	39.9	1990	9	0.60
C9XAF15KV1400	1	400	22.9	4.5	33.1	50	37.2	42.8	2300	12	0.64
C9XAF15KV1500	1	500	25.7	4.5	36.4	50	40.7	46.3	2710	15	0.69
C9XAF15KV1630	1	630	29.3	4.5	40.3	50	44.6	50.3	3190	18.9	0.75
C9XAF15KV1800	1	800	33.0	4.5	44.4	50	48.7	54.6	3780	24	0.82
C9XAF15KV11000	1	1000	38.0	4.5	49.4	50	53.7	60.0	4510	30	0.90

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA CONDUCTOR/ METALLIC SCREEN mm²	MAXIMUM CONDUCTOR DC RESISTANCE AT 20 °C Ω/km	MAXIMUM CONDUCTOR AC RESISTANCE AT 90 °C Ω/km	MAXIMUM METALLIC SCREEN DC RESISTANCE AT 20 °C Ω/km	MAXIMUM METALLIC SCREEN AC RESISTANCE AT 80 °C Ω/km	ELECTRICAL FIELD STRESS kV/mm		RESISTANCE Ω/km	CAPACITANCE µF/km	CAPACITANCE REACTANCE Ω/km	CHARGING CURRENT A/km	REACTANCE Ω/km
					Conductor screen	Insulation					
50/16	0.641	0.822	1.12	1.38	2.72	1.37	2.20	0.19	17.2	0.51	0.076
70/25	0.443	0.568	0.72	0.89	2.63	1.40	1.45	0.20	15.7	0.56	0.070
95/35	0.320	0.411	0.51	0.63	2.53	1.45	1.04	0.23	13.9	0.63	0.064
120/50	0.253	0.325	0.36	0.44	2.48	1.47	0.77	0.25	12.9	0.67	0.061
150/50	0.206	0.265	0.36	0.44	2.42	1.51	0.71	0.27	11.8	0.74	0.057
185/50	0.164	0.211	0.36	0.44	2.37	1.53	0.65	0.29	10.9	0.80	0.054
240/50	0.125	0.161	0.36	0.44	2.32	1.56	0.60	0.32	9.9	0.88	0.050
300/50	0.100	0.130	0.36	0.44	2.28	1.59	0.57	0.35	9.1	0.96	0.048
400/50	0.0778	0.102	0.36	0.44	2.24	1.61	0.54	0.39	8.1	1.07	0.044
500/50	0.0605	0.0800	0.36	0.44	2.18	1.62	0.52	0.43	7.3	1.18	0.043
630/50	0.0469	0.0634	0.36	0.44	2.14	1.65	0.51	0.49	6.5	1.33	0.041
800/50	0.0367	0.0512	0.36	0.44	2.11	1.67	0.49	0.54	5.9	1.49	0.039
1000/50	0.0291	0.0426	0.36	0.44	2.08	1.69	0.48	0.61	5.2	1.67	0.036

UK T 020 7241 8787 | F 020 7241 8700 | sales@elandcables.com | www.elandcables.com
International T +44 20 7241 8740 | F +44 20 7241 8700 | international@elandcables.com

NOMINAL CROSS SECTIONAL AREA CONDUCTOR/ METALLIC SCREEN mm²	INDUCTANCE L mH/km			INDUCTANCE REACTANCE XL Ω/km			IMPEDANCE Ω/km		
	o o²	ooo³	ooo⁴	o o²	ooo³	ooo⁴	o o²	ooo³	ooo⁴
50/16	0.43	0.73	0.62	0.136	0.229	0.194	0.833	0.853	0.845
70/25	0.41	0.70	0.60	0.130	0.221	0.188	0.583	0.610	0.599
95/35	0.39	0.67	0.58	0.123	0.212	0.181	0.429	0.462	0.449
120/50	0.38	0.66	0.56	0.119	0.206	0.177	0.346	0.385	0.370
150/50	0.36	0.63	0.55	0.114	0.199	0.172	0.288	0.331	0.316
185/50	0.35	0.61	0.54	0.110	0.193	0.169	0.238	0.286	0.270
240/50	0.34	0.59	0.52	0.106	0.187	0.164	0.193	0.247	0.230
300/50	0.33	0.58	0.51	0.103	0.181	0.161	0.165	0.222	0.206
400/50	0.31	0.55	0.50	0.099	0.174	0.157	0.142	0.201	0.187
500/50	0.31	0.54	0.49	0.096	0.169	0.154	0.125	0.187	0.174
630/50	0.30	0.52	0.48	0.093	0.163	0.151	0.113	0.174	0.164
800/50	0.29	0.50	0.47	0.091	0.157	0.149	0.104	0.165	0.158
1000/50	0.28	0.48	0.46	0.088	0.151	0.146	0.098	0.157	0.152

2 - Cables in trefoil formation, the distance between cables De
3 - Cables in flat formation (in the ground), the distance between cables De + 70 mm
4 - Cables in flat formation (in the air), the distance between cables 2 × De

CURRENT RATING FOR SINGLE-CORE CABLES – AMPERES

NOMINAL CROSS SECTIONAL AREA mm²	MAXIMUM SHORT CIRCUIT CAPACITY CONDUCTOR kA/sec	MAXIMUM SHORT CIRCUIT CAPACITY METALLIC SCREEN kA/sec	FLAT FORMATION		TREFOIL FORMATION		FLAT FORMATION		TREFOIL FORMATION	
			CONFIGURATIONS							
			SPP; CB	BOTH-ENDS	SPP; CB	BOTH-ENDS	SPP; CB	BOTH-ENDS	SPP; CB	BOTH-ENDS
			CABLES IN EARTH				CABLES IN AIR			
50/16	4.7	3.7	228	227	214	214	235	234	198	198
70/25	6.6	5.3	280	276	262	261	291	288	245	245
95/35	9.0	7.1	337	329	315	314	357	349	299	298
120/50	11.3	9.8	384	369	360	357	411	396	344	342
150/50	14.2	9.8	433	412	406	402	469	449	393	389
185/50	17.5	9.8	493	462	460	455	540	511	451	446
240/50	22.7	9.8	574	527	536	527	639	594	533	525
300/50	28.4	9.8	651	586	607	595	736	673	612	601
400/50	37.8	9.8	751	658	700	683	865	774	717	702
500/50	47.3	9.8	861	734	801	778	1009	880	836	813
630/50	59.5	9.8	990	818	917	884	1184	1003	976	944
800/50	75.6	9.8	1128	899	1037	992	1373	1126	1125	1080
1000/50	94.5	9.8	1276	983	1163	1103	1591	1255	1290	1228

SPB – Single Point Bonding; CB – Cross-bonding Both-ends; BE – Both-ends bonding

Laying conditions at trefoil formation are as below:
-Soil thermal resistivity: 1/2.5 k m/W
-Burial depth: 0.7m
-Ground temperature: 20°C | Ambient temperature: 30°C