

E-A2XHC2Y Cable



Eland Product Group: A9I

APPLICATION

Medium voltage power cables for distribution networks and generation units, suitable for external installation including in direct in ground and in buried cable ducts. UV Resistant.

CHARACTERISTICS

Voltage Rating U_0/U (Um)

6/10 (12)kV
12/20 (24)kV
18/30 (36)kV

Test Voltage

21kV AC 50Hz (5 mins)
42kV AC 50Hz (5 mins)
63kV AC 50Hz (5 mins)

Temperature Rating

-20°C to +60°C
Permissible Conductor Operating Temperature: +90°C
Permissible Short Circuit Temperature up to 5 sec: 250°C

Minimum Bending Radius

15 x overall diameter

CONSTRUCTION

Conductor

Class 2 Stranded Aluminium

Conductor Screen

Semi-conductive material

Insulation

XLPE (Cross-Linked Polyethylene)

Insulation Screen

Semi-conductive material (bonded)

Screen

Copper wires and copper tape

Outer Sheath

MDPE (Medium Density Polyethylene)

Sheath Colour

● Red ● Black

STANDARDS

IEC 60502-2, IEC 60228,

Generally to HD620 10A

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 IECIEE 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
AMBIATION 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 6/10 (12)KV

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²		NOMINAL CONDUCTOR DIAMETER mm	NUMBER WIRES CONDUCTOR mm	NOM. THICKNESS SEMI-CON. LAYER		NOMINAL INSULATION THICKNESS mm	MINIMUM INSULATION THICKNESS mm	NOMINAL DIAMETER OVER INSULATION mm
		Conductor	Screen			INNER mm	OUTER mm			
A9I10KV01050	1	50	16	8.20	7 x 2.90	0.50	0.40	3.40	2.96	16.4
A9I10KV01070	1	70	16	9.70	19 x 2.18	0.50	0.40	3.40	2.96	17.9
A9I10KV01095	1	95	16	11.4	19 x 2.55	0.50	0.40	3.40	2.96	19.6
A9I10KV01120	1	120	16	12.65	19 x 2.90	0.50	0.40	3.40	2.96	20.9
A9I10KV01150	1	150	25	14.4	19 x 3.16	0.50	0.40	3.40	2.96	22.6
A9I10KV01185	1	185	25	15.75	37 x 2.55	0.50	0.40	3.40	2.96	24.4
A9I10KV01240	1	240	25	18.2	37 x 2.90	0.50	0.40	3.40	2.96	26.9
A9I10KV01300	1	300	25	20.5	61 x 2.55	0.50	0.40	3.40	2.96	29.2
A9I10KV01400	1	400	35	23.0	61 x 2.90	0.50	0.40	3.40	2.96	31.7
A9I10KV01500	1	500	35	26.0	61 x 3.20	0.50	0.40	3.40	2.96	34.7
A9I10KV01630	1	630	35	30.2	61 x 3.65	0.50	0.40	3.40	2.96	38.9

NOMINAL CROSS SECTIONAL AREA mm ²	NUMBER WIRES SCREEN mm	DIAMETER TAPE SCREEN mm	NOMINAL SHEATH THICKNESS mm	MINIMUM SHEATH THICKNESS mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	MAXIMUM SIDEWALL PRESSURE N/cm ²	MAXIMUM PULLING TENSION N
50	44 x 0.66	1x0.1x10	1.80	1.24	23	550	331	1500
70	44 x 0.66	1x0.1x10	1.80	1.24	24	650	415	2100
95	44 x 0.66	1x0.1x10	1.80	1.24	26	750	522	2850
120	44 x 0.66	1x0.1x10	1.80	1.24	27	850	621	4500
150	71 x 0.66	1x0.1x10	1.90	1.32	29	1100	708	7500
185	71 x 0.66	1x0.1x10	1.90	1.32	31	1200	809	5550
240	71 x 0.66	1x0.1x10	2.00	1.40	33	1400	938	7200
300	71 x 0.66	1x0.1x10	2.10	1.48	36	1600	1081	9000
400	60 x 0.85	1x0.1x15	2.20	1.56	39	2000	1311	12000
500	60 x 0.85	1x0.1x15	2.30	1.64	42	2500	1471	15000
630	60 x 0.85	1x0.1x15	2.40	1.72	46	3000	1654	18900



ELECTRICAL CHARACTERISTICS 6/10 (12)KV

NOMINAL CROSS SECTIONAL AREA mm ²	CONDUCTOR DC RESISTANCE AT 20°C ohms/km	CONDUCTOR DC RESISTANCE AT 75°C ohms/km	CONDUCTOR AC RESISTANCE BY MAX TEMP ohms/km	CURRENT CARRYING CAPACITY (A)		REACTANCE ohms/km	CHARGING ADMITTANCE A/km	CAPACITANCE uF/km	S.C.C CONDUCTOR 1SEC kA	S.C.C SCREEN 1SEC kA	CONDUCTOR LOSSES IN THE GROUND kW/km
				In Ground 20°C	In Air 30°C						
50	0.641	1.32	0.825	194	215	0.18	0.35	0.22	4.70	3.2	31.0
70	0.443	0.917	0.570	236	269	0.17	0.33	0.24	6.58	3.2	31.7
95	0.32	0.662	0.412	281	327	0.17	0.32	0.28	8.93	3.2	32.5
120	0.258	0.524	0.328	318	377	0.16	0.31	0.30	11.28	3.2	33.2
150	0.203	0.426	0.268	350	424	0.16	0.30	0.33	14.10	5.0	32.8
185	0.165	0.339	0.213	393	485	0.16	0.29	0.36	17.39	5.0	32.9
240	0.125	0.258	0.160	453	573	0.15	0.28	0.40	22.56	5.0	33.4
300	0.100	0.207	0.132	507	652	0.15	0.28	0.45	28.20	5.0	33.9
400	0.0778	0.161	0.103	559	741	0.15	0.27	0.49	37.60	7.1	32.2
500	0.0605	0.125	0.0810	622	838	0.15	0.26	0.54	47.00	7.1	31.3
630	0.0469	0.0972	0.0640	701	882	0.14	0.25	0.62	59.22	7.1	47.3

Derating factor (ground): 1 (Soil thermal resistivity: 1km/W, Depth 0.8m, Flat formation - touching)

Derating factor (air): 1 (Flat formation - touching)

DIMENSIONS 12/20 (24)KV

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA		NOMINAL CONDUCTOR DIAMETER	NUMBER WIRES CONDUCTOR	NOM. THICKNESS SEMI-CON. LAYER		NOMINAL INSULATION THICKNESS	MINIMUM INSULATION THICKNESS	NOMINAL DIAMETER OVER INSULATION
		mm ²				INNER	OUTER			
		Conductor	Screen							
A9I20KV01050	1	50	16	8.20	7 x 2.90	0.50	0.40	5.50	4.85	20.4
A9I20KV01070	1	70	16	9.70	19 x 2.18	0.50	0.40	5.50	4.85	21.9
A9I20KV01095	1	95	16	11.4	19 x 2.55	0.50	0.40	5.50	4.85	23.6
A9I20KV01120	1	120	16	12.65	19 x 2.90	0.50	0.40	5.50	4.85	24.9
A9I20KV01150	1	150	25	14.4	19 x 3.16	0.50	0.40	5.50	4.85	26.6
A9I20KV01185	1	185	25	15.75	37 x 2.55	0.50	0.40	5.50	4.85	28.4
A9I20KV01240	1	240	25	18.2	37 x 2.90	0.50	0.40	5.50	4.85	30.9
A9I20KV01300	1	300	25	20.5	61 x 2.55	0.50	0.40	5.50	4.85	33.2
A9I20KV01400	1	400	35	23.0	61 x 2.90	0.50	0.40	5.50	4.85	35.7
A9I20KV01500	1	500	35	26.0	61 x 3.20	0.50	0.40	5.50	4.85	38.7
A9I20KV01630	1	630	35	30.2	61 x 3.65	0.50	0.40	5.50	4.85	42.9

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.



NOMINAL CROSS SECTIONAL AREA	NUMBER WIRES SCREEN	DIAMETER TAPE SCREEN	NOMINAL SHEATH THICKNESS	MINIMUM SHEATH THICKNESS	NOMINAL OVERALL DIAMETER	NOMINAL WEIGHT	MAXIMUM SIDEWALL PRESSURE	MAXIMUM PULLING TENSION
mm ²	mm	mm	mm	mm	mm	kg/km	N/cm ²	N
50	44 x 0.66	1x0.1x10	1.80	1.24	27	700	292	1500
70	44 x 0.66	1x0.1x10	1.90	1.32	28	800	371	2100
95	44 x 0.66	1x0.1x10	1.90	1.32	30	900	479	2850
120	44 x 0.66	1x0.1x10	2.00	1.40	31	1000	550	3600
150	71 x 0.66	1x0.1x10	2.00	1.40	33	1300	633	4500
185	71 x 0.66	1x0.1x10	2.10	1.48	35	1400	729	5550
240	71 x 0.66	1x0.1x10	2.10	1.48	38	1600	870	7200
300	71 x 0.66	1x0.1x10	2.20	1.56	40	1900	992	9000
400	60 x 0.85	1x0.1x15	2.30	1.64	43	2250	1212	12000
500	60 x 0.85	1x0.1x15	2.40	1.72	46	2750	1389	15000
630	60 x 0.85	1x0.1x15	2.50	1.80	51	3250	1571	18900

ELECTRICAL CHARACTERISTICS 12/20 (24)KV

NOMINAL CROSS SECTIONAL AREA	CONDUCTOR DC RESISTANCE AT 20°C	CONDUCTOR DC RESISTANCE AT 75°C	CONDUCTOR AC RESISTANCE BY MAX TEMP	CURRENT CARRYING CAPACITY (A)		REACTANCE	CHARGING ADMITTANCE	CAPACITANCE	S.C.C CONDUCTOR 1SEC kA	S.C.C SCREEN 1SEC kA	CONDUCTOR LOSSES IN THE GROUND
mm ²	ohms/km	ohms/km	ohms/km	In Ground 20°C	In Air 30°C	ohms/km	A/km	uF/km		kA	kW/km
50	0.641	1.32	0.825	195	217	0.19	0.39	0.15	4.70	3.2	31.4
70	0.443	0.917	0.570	237	270	0.18	0.37	0.17	6.58	3.2	32.0
95	0.32	0.662	0.412	282	328	0.18	0.35	0.19	8.93	3.2	32.8
120	0.258	0.524	0.328	320	378	0.17	0.34	0.20	11.28	3.2	33.6
150	0.203	0.426	0.268	353	425	0.17	0.33	0.22	14.10	5.0	33.4
185	0.164	0.339	0.213	396	485	0.17	0.32	0.24	17.39	5.0	33.4
240	0.125	0.258	0.160	457	573	0.16	0.31	0.27	22.56	5.0	34.0
300	0.100	0.207	0.132	511	652	0.16	0.30	0.29	28.20	5.0	34.5
400	0.0778	0.161	0.103	566	740	0.16	0.29	0.32	37.60	7.1	33.0
500	0.0605	0.125	0.0810	630	838	0.15	0.28	0.35	47.00	7.1	32.1
630	0.0469	0.0972	0.0640	701	882	0.15	0.27	0.40	59.22	7.1	47.3

Derating factor (ground): 1 (Soil thermal resistivity: 1km/W, Depth 0.8m, Flat formation - touching)

Derating factor (air): 1 (Flat formation - touching)



DIMENSIONS 18/30 (36)KV

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²		NOMINAL CONDUCTOR DIAMETER mm	NUMBER WIRES CONDUCTOR mm	NOM. THICKNESS SEMI-CON. LAYER		NOMINAL INSULATION THICKNESS mm	MINIMUM INSULATION THICKNESS mm	NOMINAL DIAMETER OVER INSULATION mm
		Conductor	Screen			INNER mm	OUTER mm			
A9I30KV01050	1	50	16	8.20	7 x 2.90	0.50	0.40	8.00	7.10	25.2
A9I30KV01070	1	70	16	9.70	19 x 2.18	0.50	0.40	8.00	7.10	26.7
A9I30KV01095	1	95	16	11.4	19 x 2.55	0.50	0.40	8.00	7.10	28.4
A9I30KV01120	1	120	16	12.65	19 x 2.90	0.50	0.40	8.00	7.10	29.7
A9I30KV01150	1	150	25	14.4	19 x 3.16	0.50	0.40	8.00	7.10	31.4
A9I30KV01185	1	185	25	15.75	37 x 2.55	0.50	0.40	8.00	7.10	33.2
A9I30KV01240	1	240	25	18.2	37 x 2.90	0.50	0.40	8.00	7.10	35.7
A9I30KV01300	1	300	25	20.5	61 x 2.55	0.50	0.40	8.00	7.10	38.0
A9I30KV01400	1	400	35	23.0	61 x 2.90	0.50	0.40	8.00	7.10	40.5
A9I30KV01500	1	500	35	26.0	61 x 3.20	0.50	0.40	8.00	7.10	43.5
A9I30KV01630	1	630	35	30.2	61 x 3.65	0.50	0.40	8.00	7.10	47.7

NOMINAL CROSS SECTIONAL AREA mm ²	NUMBER WIRES SCREEN mm	DIAMETER TAPE SCREEN mm	NOMINAL SHEATH THICKNESS mm	MINIMUM SHEATH THICKNESS mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	MAXIMUM SIDEWALL PRESSURE N/cm ²	MAXIMUM PULLING TENSION N
50	44 x 0.66	1x0.1x10	2.00	1.40	32	900	255	1500
70	44 x 0.66	1x0.1x10	2.00	1.40	33	1100	328	2100
95	44 x 0.66	1x0.1x10	2.10	1.48	35	1200	409	2850
120	44 x 0.66	1x0.1x10	2.10	1.48	36	1300	493	3600
150	71 x 0.66	1x0.1x10	2.20	1.56	38	1500	573	4500
185	71 x 0.66	1x0.1x10	2.20	1.56	40	1700	664	5550
240	71 x 0.66	1x0.1x10	2.30	1.64	43	1900	784	7200
300	71 x 0.66	1x0.1x10	2.40	1.72	45	2250	916	9000
400	60 x 0.85	1x0.1x15	2.50	1.80	48	2750	1127	12000
500	60 x 0.85	1x0.1x15	2.60	1.88	51	3000	1299	15000
630	60 x 0.85	1x0.1x15	2.70	1.96	56	3500	1462	18900



ELECTRICAL CHARACTERISTICS 18/30 (36)KV

NOMINAL CROSS SECTIONAL AREA mm ²	CONDUCTOR DC RESISTANCE AT 20°C ohms/km	CONDUCTOR DC RESISTANCE AT 75°C ohms/km	CONDUCTOR AC RESISTANCE BY MAX TEMP ohms/km	CURRENT CARRYING CAPACITY (A)		REACTANCE ohms/km	CHARGING ADMITTANCE A/km	CAPACITANCE uF/km	S.C.C CONDUCTOR 1SEC kA	S.C.C SCREEN 1SEC kA	CONDUCTOR LOSSES IN THE GROUND kW/km
				In Ground 20°C	In Air 30°C						
50	0.641	1.32	0.825	196	217	0.20	0.43	0.12	4.70	3.2	31.7
70	0.443	0.917	0.570	238	270	0.19	0.41	0.13	6.58	3.2	32.3
95	0.32	0.662	0.412	284	328	0.19	0.39	0.14	8.93	3.2	33.2
120	0.258	0.524	0.328	322	378	0.18	0.38	0.15	11.28	3.2	34.0
150	0.203	0.426	0.268	355	425	0.18	0.36	0.17	14.10	5.0	33.8
185	0.164	0.339	0.213	400	485	0.18	0.35	0.18	17.39	5.0	34.1
240	0.125	0.258	0.160	461	572	0.17	0.33	0.20	22.56	5.0	34.6
300	0.100	0.207	0.132	516	649	0.17	0.32	0.22	28.20	5.0	35.1
400	0.0778	0.161	0.103	572	737	0.16	0.32	0.24	37.60	7.1	33.7
500	0.0605	0.125	0.0810	638	835	0.16	0.30	0.26	47.00	7.1	33.0
630	0.0469	0.0972	0.0640	701	882	0.15	0.29	0.29	59.22	7.1	47.3

Derating factor (ground): 1 (Soil thermal resistivity: 1km/W, Depth 0.8m, Flat formation - touching)

Derating factor (air): 1 (Flat formation - touching)