

E-2XHCJA2Y Cable



Eland Product Group: A9E

APPLICATION

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

CHARACTERISTICS

Voltage Rating U_0/U

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 Copper

Conductor Screen

Semi-conductive material

Insulation

XLPE (Cross-Linked Polyethylene)

Insulation Screen

Semi-conductive material (bonded)

Longitudinal Waterblocking

Semi-conductive swellable tape

Screen

Copper wires and copper tape

Longitudinal Waterblocking

Swellable Tapes

Radial Waterblocking

Al/PET (Aluminium/Polyester) Tape bonded to sheath

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
Water Resistant: EN 60529
Abrasion and Tear Resistant: EN 60229-4.1
Impact rated to: AG2 EN 60364-5.51

THE CABLE LAB[®]

AN ISO/IEC 17025 AND IECCE 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 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			
A9E10KV01050	1	50	16	8.10	10 x 2.62	0.50	0.40	3.40	2.96	16.3
A9E10KV01070	1	70	16	9.70	14 x 2.62	0.50	0.40	3.40	2.96	17.9
A9E10KV01095	1	95	16	11.4	19 x 2.62	0.50	0.40	3.40	2.96	19.6
A9E10KV01120	1	120	16	12.7	19 x 2.97	0.50	0.40	3.40	2.96	20.9
A9E10KV01150	1	150	25	14.5	19 x 3.20	0.50	0.40	3.40	2.96	22.7
A9E10KV01185	1	185	25	15.9	27 x 2.62	0.50	0.40	3.40	2.96	24.1
A9E10KV01240	1	240	25	18.6	48 x 2.62	0.50	0.40	3.40	2.96	26.8
A9E10KV01300	1	300	25	20.7	61 x 2.62	0.50	0.40	3.40	2.96	28.9
A9E10KV01400	1	400	35	23.5	61 x 2.97	0.50	0.40	3.40	2.96	31.7
A9E10KV01500	1	500	35	26.5	61 x 3.29	0.50	0.40	3.40	2.96	34.7
A9E10KV01630	1	630	35	30.2	61 x 3.80	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	900	536	2500
70	44 x 0.66	1x0.1x10	1.80	1.24	25	1100	672	3500
95	44 x 0.66	1x0.1x10	1.80	1.24	26	1400	847	4750
120	44 x 0.66	1x0.1x10	1.80	1.24	28	1700	983	6000
150	71 x 0.66	1x0.1x10	1.90	1.32	30	2000	1124	7500
185	71 x 0.66	1x0.1x10	1.90	1.32	31	2500	1315	9250
240	71 x 0.66	1x0.1x10	2.00	1.40	34	3000	1521	12000
300	71 x 0.66	1x0.1x10	2.10	1.48	36	3500	1764	15000
400	60 x 0.85	1x0.1x15	2.20	1.56	39	4500	2133	20000
500	60 x 0.85	1x0.1x15	2.30	1.64	43	5500	2398	25000
630	60 x 0.85	1x0.1x15	2.40	1.72	47	7000	2720	31500



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	0.387	0.801	0.497	249	277	0.18	0.36	0.21	7.15	3.2	30.8
70	0.268	0.555	0.344	303	345	0.17	0.34	0.24	10.1	3.2	31.6
95	0.193	0.399	0.248	358	418	0.17	0.33	0.27	13.59	3.2	31.8
120	0.153	0.316	0.196	404	481	0.16	0.32	0.30	17.16	3.2	32.0
150	0.124	0.160	0.256	441	537	0.16	0.30	0.33	21.45	5.0	31.1
185	0.0991	0.205	0.128	493	612	0.16	0.30	0.35	26.46	5.0	31.1
240	0.0754	0.156	0.0980	563	716	0.15	0.28	0.40	34.32	5.0	31.1
300	0.0601	0.124	0.0800	626	811	0.15	0.28	0.44	42.90	5.0	31.4
400	0.0470	0.0974	0.0640	676	901	0.15	0.27	0.49	57.20	7.1	29.2
500	0.0366	0.0758	0.0510	743	1006	0.15	0.26	0.54	71.50	7.1	28.2
630	0.0283	0.0420	0.0586	850	1030	0.14	0.26	0.62	90.09	7.1	30.3

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)

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			
A9E20KV01050	1	50	16	8.10	10 x 2.62	0.50	0.40	5.50	4.85	20.3
A9E20KV01070	1	70	16	9.70	14 x 2.62	0.50	0.40	5.50	4.85	21.9
A9E20KV01095	1	95	16	11.4	19 x 2.62	0.50	0.40	5.50	4.85	23.6
A9E20KV01120	1	120	16	12.7	19 x 2.97	0.50	0.40	5.50	4.85	24.9
A9E20KV01150	1	150	25	14.5	19 x 3.20	0.50	0.40	5.50	4.85	26.7
A9E20KV01185	1	185	25	15.9	27 x 2.62	0.50	0.40	5.50	4.85	28.1
A9E20KV01240	1	240	25	18.6	48 x 2.62	0.50	0.40	5.50	4.85	30.8
A9E20KV01300	1	300	25	20.7	61 x 2.62	0.50	0.40	5.50	4.85	32.9
A9E20KV01400	1	400	35	23.5	61 x 2.97	0.50	0.40	5.50	4.85	35.7
A9E20KV01500	1	500	35	26.5	61 x 3.29	0.50	0.40	5.50	4.85	38.7
A9E20KV01630	1	630	35	30.2	61 x 3.80	0.50	0.40	5.50	4.85	42.9

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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	1100	475	2500
70	44 x 0.66	1x0.1x10	1.90	1.32	29	1300	603	3500
95	44 x 0.66	1x0.1x10	1.90	1.32	31	1600	747	4750
120	44 x 0.66	1x0.1x10	2.00	1.40	32	1900	895	6000
150	71 x 0.66	1x0.1x10	2.00	1.40	34	2250	1031	7500
185	71 x 0.66	1x0.1x10	2.10	1.48	35	2750	1212	9250
240	71 x 0.66	1x0.1x10	2.10	1.48	38	3250	1413	12000
300	71 x 0.66	1x0.1x10	2.20	1.56	40	3750	1647	15000
400	60 x 0.85	1x0.1x15	2.30	1.64	44	4750	1975	20000
500	60 x 0.85	1x0.1x15	2.40	1.72	47	5750	2268	25000
630	60 x 0.85	1x0.1x15	2.50	1.80	51	7250	2586	31500

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	0.387	0.801	0.497	250	279	0.19	0.40	0.15	7.15	3.2	31.1
70	0.268	0.555	0.344	304	347	0.18	0.38	0.17	10.1	3.2	31.8
95	0.193	0.399	0.248	361	420	0.18	0.36	0.19	13.59	3.2	32.3
120	0.153	0.316	0.196	407	483	0.17	0.35	0.20	17.16	3.2	32.5
150	0.124	0.160	0.256	445	540	0.17	0.33	0.24	21.45	5.0	31.7
185	0.0991	0.205	0.128	498	614	0.16	0.32	0.24	26.46	5.0	31.7
240	0.0754	0.156	0.0980	569	718	0.16	0.31	0.27	34.32	5.0	31.7
300	0.0601	0.124	0.0800	633	813	0.16	0.30	0.29	42.90	5.0	32.1
400	0.0470	0.0974	0.0640	686	904	0.16	0.29	0.32	57.20	7.1	30.1
500	0.0366	0.0758	0.0510	756	1011	0.15	0.28	0.36	71.50	7.1	29.1
630	0.0283	0.0420	0.0586	850	1030	0.15	0.27	0.40	90.09	7.1	30.3

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			
A9E30KV01050	1	50	16	8.10	10 x 2.62	0.50	0.40	8.00	7.10	25.1
A9E30KV01070	1	70	16	9.70	14 x 2.62	0.50	0.40	8.00	7.10	26.7
A9E30KV01095	1	95	16	11.4	19 x 2.62	0.50	0.40	8.00	7.10	28.4
A9E30KV01120	1	120	16	12.7	19 x 2.97	0.50	0.40	8.00	7.10	29.7
A9E30KV01150	1	150	25	14.5	19 x 3.20	0.50	0.40	8.00	7.10	31.5
A9E30KV01185	1	185	25	15.9	27 x 2.62	0.50	0.40	8.00	7.10	32.9
A9E30KV01240	1	240	25	18.6	48 x 2.62	0.50	0.40	8.00	7.10	35.6
A9E30KV01300	1	300	25	20.7	61 x 2.62	0.50	0.40	8.00	7.10	37.7
A9E30KV01400	1	400	35	23.5	61 x 2.97	0.50	0.40	8.00	7.10	40.5
A9E30KV01500	1	500	35	26.5	61 x 3.29	0.50	0.40	8.00	7.10	43.5
A9E30KV01630	1	630	35	30.2	61 x 3.80	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	1300	416	2500
70	44 x 0.66	1x0.1x10	2.00	1.40	34	1500	534	3500
95	44 x 0.66	1x0.1x10	2.10	1.48	36	1900	668	4750
120	44 x 0.66	1x0.1x10	2.10	1.48	37	2250	805	6000
150	71 x 0.66	1x0.1x10	2.20	1.56	39	2500	935	7500
185	71 x 0.66	1x0.1x10	2.20	1.56	40	3000	1103	9250
240	71 x 0.66	1x0.1x10	2.30	1.64	43	3500	1299	12000
300	71 x 0.66	1x0.1x10	2.40	1.72	46	4250	1499	15000
400	60 x 0.85	1x0.1x15	2.50	1.80	49	5250	1839	20000
500	60 x 0.85	1x0.1x15	2.60	1.88	52	6250	2123	25000
630	60 x 0.85	1x0.1x15	2.70	1.96	56	7250	2436	31500



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	0.387	0.801	0.497	251	279	0.20	0.44	0.12	7.15	3.2	31.3
70	0.268	0.555	0.344	306	348	0.19	0.41	0.13	10.1	3.2	32.2
95	0.193	0.399	0.248	363	421	0.19	0.38	0.14	13.59	3.2	32.7
120	0.153	0.316	0.196	410	483	0.18	0.37	0.15	17.16	3.2	32.9
150	0.124	0.160	0.256	449	540	0.18	0.36	0.17	21.45	5.0	32.3
185	0.0991	0.205	0.128	503	615	0.17	0.35	0.17	26.46	5.0	32.4
240	0.0754	0.156	0.0980	576	718	0.17	0.34	0.20	34.32	5.0	32.5
300	0.0601	0.124	0.0800	641	812	0.17	0.32	0.21	42.90	5.0	32.9
400	0.0470	0.0974	0.0640	697	904	0.16	0.31	0.24	57.20	7.1	31.1
500	0.0366	0.0758	0.0510	768	1011	0.16	0.30	0.26	71.50	7.1	30.1
630	0.0283	0.0420	0.0586	850	1030	0.15	0.29	0.29	90.09	7.1	30.3

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

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

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