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ELAND[®]
CABLES

ARG7H1R Cable



Eland Product Group: B4E

APPLICATION

Suitable for energy transmission between transformer rooms and big power users. For laying on air, into tube or open pass. Can be laid underground, also if not protected, complying with art. 4.3.11 of CEI 11-17 standard.

CHARACTERISTICS

Voltage

1.8/3 (3.6)kV,
6/10 (12)kV,
12/20 (24)kV,
18/30 (36)kV

Temperature Rating

-15°C to 90°C

Maximum temperature during short circuit: 250°C

Minimum installation temperature: 0°C

Minimum Bending Radius

12 x Outer diameter

Maximum Tensile Stress

30 N/mm²

CONSTRUCTION

Conductor

Class 2, compact stranded aluminium

Conductor Screen

Extruded compound (only cables $\geq$ 6/10 kV)

Insulation

HEPR (Hard Grade Ethylene Propylene Rubber) G7 quality, Pb free

Insulation Screen

Extruded compound (only cables $\geq$ 6/10 kV)

Metallic Screen

Plain copper wires with helically wound tape

Outer Sheath

PVC (Polyvinyl Chloride) compound, Rz quality

Outer Sheath Colour

● Red

STANDARDS

CEI 20-13, IEC 60502, CEI 20-16, IEC 60885-3, EN 60332-1-2, EN 60754-1

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



SCIENCE
BASED
TARGETS

BUSINESS
AMBITION 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 1.8/3 KV

ELAND PART NUMBERS	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL CONDUCTOR DIAMETER mm	NOMINAL INSULATION THICKNESS mm	NOMINAL OUTER DIAMETER mm	NOMINAL WEIGHT kg/km
B4E03KV01025	1	25	6.0	2.0	16.0	315
B4E03KV01035	1	35	7.0	2.0	17.0	360
B4E03KV01050	1	50	8.1	2.0	18.5	410
B4E03KV01070	1	70	9.7	2.0	20.5	495
B4E03KV01095	1	95	11.4	2.0	22.0	600
B4E03KV01120	1	120	12.9	2.0	24.5	700
B4E03KV01150	1	150	14.3	2.0	26.0	790
B4E03KV01185	1	185	16.0	2.0	27.5	1225
B4E03KV01240	1	240	18.3	2.0	30.0	1475
B4E03KV01300	1	300	21.0	2.0	32.5	1707
B4E03KV01400	1	400	23.6	2.0	35.5	2260
B4E03KV01500	1	500	26.5	2.0	40.0	2590
B4E03KV01630	1	630	30.1	2.0	44.0	3150

ELECTRICAL CHARACTERISTICS 1.8/3 KV

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM CONDUCTOR DC RESISTANCE AT 20°C Ω/Km	CONDUCTOR RESISTANCE AT 90°C AND 50Hz Ω/Km		PHASE REACTANCE Ω/Km		CAPACITANCE AT 50Hz μF/km	CURRENT RATING A			
							In Air		Buried	
		In Trefoil	Flat	In Trefoil	Flat		In Trefoil	Flat	In Trefoil	Flat
25	1.20	0.927	0.927	0.12	0.18	0.27	119	121	105	109
35	0.868	0.669	0.668	0.11	0.17	0.30	144	147	129	130
50	0.641	0.494	0.494	0.11	0.16	0.34	174	178	149	153
70	0.443	0.342	0.342	0.10	0.16	0.40	218	223	182	188
95	0.320	0.246	0.246	0.098	0.16	0.45	266	273	217	224
120	0.253	0.196	0.196	0.095	0.15	0.50	309	317	247	256
150	0.206	0.159	0.158	0.092	0.15	0.55	352	361	277	287
185	0.164	0.128	0.127	0.089	0.15	0.60	406	417	314	325
240	0.125	0.0985	0.0974	0.086	0.14	0.68	483	495	364	377
300	0.100	0.0797	0.0781	0.084	0.14	0.75	556	570	411	426
400	0.0778	0.0638	0.0628	0.083	0.14	0.83	651	667	471	487
500	0.0605	0.0517	0.0492	0.081	0.14	0.88	730	746	530	550
630	0.0469	0.0425	0.0392	0.079	0.14	0.92	810	832	600	622



DIMENSIONS 6/10 KV

ELAND PART NUMBER	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL CONDUCTOR DIAMETER mm	NOMINAL INSULATION THICKNESS mm	NOMINAL OUTER DIAMETER mm	NOMINAL WEIGHT kg/km
B4E10KV01035	1	35	7.0	3.4	23.0	535
B4E10KV01050	1	50	8.1	3.4	24.5	600
B4E10KV01070	1	70	9.7	3.4	26.5	700
B4E10KV01095	1	95	11.4	3.4	28.0	825
B4E10KV01120	1	120	12.9	3.4	29.3	950
B4E10KV01150	1	150	14.3	3.4	31.0	1070
B4E10KV01185	1	185	16.0	3.4	33.3	1225
B4E10KV01240	1	240	18.3	3.4	35.6	1475
B4E10KV01300	1	300	21.0	3.4	38.5	1710
B4E10KV01400	1	400	23.6	3.4	41.0	2260
B4E10KV01500	1	500	26.5	3.4	45.0	2590
B4E10KV01630	1	630	30.1	3.4	48.0	3150

ELECTRICAL CHARACTERISTICS 6/10 KV

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM CONDUCTOR DC RESISTANCE AT 20°C Ω/Km	CONDUCTOR RESISTANCE AT 90°C AND 50Hz Ω/Km		PHASE REACTANCE Ω/Km		CAPACITANCE AT 50Hz μF/km	CURRENT RATING A			
							In Air		Buried	
		In Trefoil	Flat	In Trefoil	Flat		In Trefoil	Flat	In Trefoil	Flat
35	0.868	0.113	0.113	0.13	0.19	0.23	144	152	142	149
50	0.641	0.822	0.822	0.12	0.18	0.26	174	183	168	177
70	0.443	0.568	0.568	0.12	0.17	0.29	218	229	207	218
95	0.320	0.411	0.411	0.11	0.17	0.32	266	280	247	260
120	0.253	0.325	0.325	0.11	0.16	0.36	309	325	281	296
150	0.206	0.265	0.265	0.10	0.16	0.38	352	371	318	335
185	0.164	0.211	0.211	0.10	0.16	0.42	406	427	361	380
240	0.125	0.161	0.161	0.097	0.16	0.47	483	508	418	440
300	0.100	0.130	0.129	0.095	0.15	0.52	547	576	472	497
400	0.0778	0.102	0.101	0.092	0.15	0.57	640	674	543	572
500	0.0605	0.0801	0.0794	0.089	0.15	0.64	740	779	621	654
630	0.0469	0.0635	0.0625	0.087	0.15	0.73	862	907	706	743



DIMENSIONS 12/20 KV

ELAND PART NUMBERS	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL CONDUCTOR DIAMETER mm	NOMINAL INSULATION THICKNESS mm	NOMINAL OUTER DIAMETER mm	NOMINAL WEIGHT kg/km
B4E20KV01035	1	35	7.0	5.5	27.7	750
B4E20KV01050	1	50	8.1	5.5	29.0	820
B4E20KV01070	1	70	9.7	5.5	30.5	955
B4E20KV01095	1	95	11.4	5.5	33.0	1080
B4E20KV01120	1	120	12.9	5.5	34.8	1255
B4E20KV01150	1	150	14.3	5.5	36.2	1335
B4E20KV01185	1	185	16.0	5.5	37.6	1555
B4E20KV01240	1	240	18.3	5.5	40.2	1840
B4E20KV01300	1	300	21.0	5.5	43.0	2115
B4E20KV01400	1	400	23.6	5.5	45.8	2660
B4E20KV01500	1	500	26.5	5.5	50.0	3185
B4E20KV01630	1	630	30.1	5.5	54.0	3805

ELECTRICAL CHARACTERISTICS 12/20 KV

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM CONDUCTOR DC RESISTANCE AT 20°C Ω/Km	CONDUCTOR RESISTANCE AT 90°C AND 50Hz Ω/Km		PHASE REACTANCE Ω/Km		CAPACITANCE AT 50Hz μF/km	CURRENT RATING A			
		In Trefoil	Flat	In Trefoil	Flat		In Air		Buried	
							In Trefoil	Flat	In Trefoil	Flat
35	0.868	1.113	1.113	0.14	0.20	0.17	144	152	142	149
50	0.641	0.822	0.822	0.13	0.19	0.18	174	183	168	177
70	0.443	0.568	0.568	0.13	0.19	0.21	218	229	207	218
95	0.320	0.411	0.411	0.12	0.18	0.23	266	280	247	260
120	0.253	0.325	0.325	0.12	0.18	0.25	309	325	281	296
150	0.206	0.265	0.265	0.11	0.17	0.27	352	371	318	335
185	0.164	0.211	0.211	0.11	0.17	0.29	406	427	361	380
240	0.125	0.161	0.161	0.11	0.16	0.32	483	508	418	440
300	0.100	0.130	0.129	0.10	0.16	0.35	547	576	472	497
400	0.0778	0.102	0.101	0.099	0.16	0.39	640	674	543	572
500	0.0605	0.0801	0.0794	0.096	0.15	0.43	740	779	621	654
630	0.0469	0.0635	0.0625	0.093	0.15	0.49	862	907	706	743



DIMENSIONS 18/30 KV

ELAND PART NUMBERS	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL CONDUCTOR DIAMETER mm	NOMINAL INSULATION THICKNESS mm	NOMINAL OUTER DIAMETER mm	NOMINAL WEIGHT kg/km
B4E30KV01035	1	35	7.0	8.0	33.5	1045
B4E30KV01050	1	50	8.1	8.0	34.1	1155
B4E30KV01070	1	70	9.7	8.0	36.2	1545
B4E30KV01095	1	95	11.4	8.0	38.2	1290
B4E30KV01120	1	120	12.9	8.0	40.0	1670
B4E30KV01150	1	150	14.3	8.0	41.0	1790
B4E30KV01185	1	185	16.0	8.0	43.1	2005
B4E30KV01240	1	240	18.3	8.0	45.0	2300
B4E30KV01300	1	300	21.0	8.0	47.0	2570
B4E30KV01400	1	400	23.6	8.0	51.1	3145
B4E30KV01500	1	500	26.5	8.0	53.0	3555
B4E30KV01630	1	630	30.1	8.0	60.2	4195

ELECTRICAL CHARACTERISTICS 18/30 KV

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM CONDUCTOR DC RESISTANCE AT 20°C Ω/Km	CONDUCTOR RESISTANCE AT 90°C AND 50Hz Ω/Km		PHASE REACTANCE Ω/Km		CAPACITANCE AT 50Hz μF/km	CURRENT RATING A			
		In Trefoil	Flat	In Trefoil	Flat		In Air		Buried	
							In Trefoil	Flat	In Trefoil	Flat
35	0.868	1.113	1.113	0.14	0.20	0.17	144	152	142	149
50	0.387	0.494	0.494	0.15	0.20	0.15	174	183	168	177
70	0.268	0.342	0.342	0.14	0.20	0.16	218	229	207	218
95	0.193	0.246	0.246	0.13	0.19	0.18	266	280	247	260
120	0.153	0.196	0.196	0.13	0.18	0.19	309	325	281	296
150	0.124	0.159	0.158	0.12	0.18	0.20	352	371	318	335
185	0.0991	0.128	0.127	0.12	0.18	0.22	406	427	361	380
240	0.0754	0.0985	0.0972	0.11	0.17	0.24	483	508	418	440
300	0.0601	0.0797	0.0779	0.11	0.17	0.27	547	576	472	497
400	0.0470	0.0638	0.0616	0.11	0.16	0.29	640	674	543	572
500	0.0366	0.0517	0.0489	0.10	0.16	0.32	740	779	621	654
630	0.0283	0.0425	0.0389	0.099	0.16	0.36	862	907	706	743

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.