

Coil End Lead TYPE 4 BS 6195 Cable



Eland Product Group: **A6K**

APPLICATION

Coil end leads are used mainly as a flexible connection to coil windings of motors, generators, transformers, circuit breakers and actuators. Also suitable in certain applications instead of tri-rated and bi-rated cables.

CONSTRUCTION

Conductor

Class 5 flexible tinned copper conductor according to BS EN 60228 (previously BS 6360)

Separator

PET (Polyester Tape)

Insulation

4A, 4C: EPR-HOFR (Ethylene Propylene Rubber - Heat and Oil Resistant and Flame Retardant) Type FR1 according to BS 7655

4D, 4E, 4F: EPR-HOFR (Ethylene Propylene Rubber - Heat and Oil Resistant and Flame Retardant) Type FR2 according to BS 7655

Sheath

CPE (Chlorinated Polyethylene) rubber compound

CABLE STANDARDS

BS 6195 Type 4, BS EN/IEC 60332-1



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed

CHARACTERISTICS

Voltage Rating (U_o/U)

Type 4A: 300/500V

Type 4C: 600/1000V

Type 4D: 1.9/3.3kV

Type 4E: 3.8/6.6kV

Type 4F: 6.35/11kV

Temperature Rating

Fixed: -40°C to +90°C

Flexed: -30°C to +90°C

Minimum Bending Radius

Fixed: 4 x overall diameter

Flexed: 6 x overall diameter

Sheath Colour

● Black

DIMENSIONS

ELAND PART NO.	CABLE TYPE	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL THICKNESS OF INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
Coil End Lead Type 4A Cable - 300/500V						
A6K0015A	4A	1	1.5	0.8	4	29
A6K0025A	4A	1	2.5	0.9	4.6	42
A6K0040A	4A	1	4	1	5.4	61
A6K006A	4A	1	6	1	6.5	88
A6K010A	4A	1	10	1.2	7.9	141

ELAND PART NO.	CABLE TYPE	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL THICKNESS OF INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
Coil End Lead Type 4C Cable - 600/1000V						
A6K010	4C	1	10	1.5	8.5	130
A6K016	4C	1	16	1.5	9.6	190
A6K025	4C	1	25	1.6	11.4	290
A6K035	4C	1	35	1.6	12.8	380
A6K050	4C	1	50	1.7	14.8	510
A6K070	4C	1	70	1.8	17.2	750
A6K095	4C	1	95	2	19.7	935
A6K120	4C	1	120	2.2	21.9	1160
A6K150	4C	1	150	2.3	24.1	1450
A6K185	4C	1	185	2.4	26.3	1770
A6K240	4C	1	240	2.4	28.3	2260
A6K300	4C	1	300	2.6	33	2760
A6K400	4C	1	400	2.8	37.4	3880
A6K500	4C	1	500	3.2	38	4650
A6K630	4C	1	630	3.3	43	6220
Coil End Lead Type 4D Cable - 1.9/3.3kV						
A6K0025D	4D	1	2.5	2.8	8.5	100
A6K0040D	4D	1	4	2.8	9.1	115
A6K006D	4D	1	6	2.8	10.3	141
A6K010D	4D	1	10	2.8	11.3	216
A6K016D	4D	1	16	2.8	12.4	288
A6K025D	4D	1	25	2.8	13.8	392
A6K035D	4D	1	35	2.8	15.2	509
A6K050D	4D	1	50	2.8	17.1	682
A6K070D	4D	1	70	2.8	19.2	894
A6K095D	4D	1	95	3	22	1168
A6K120D	4D	1	120	3	23.5	1433
A6K150D	4D	1	150	3	25.5	1734
A6K185D	4D	1	185	3	27.5	2073
A6K240D	4D	1	240	3	30.6	2657
A6K300D	4D	1	300	3	33.8	3279
A6K400D	4D	1	400	3	37.8	4229
Coil End Lead Type 4E Cable - 3.8/6.6kV						
A6K016E	4E	1	16	5	17.2	408
A6K025E	4E	1	25	5	18.6	527
A6K035E	4E	1	35	5	20	656
A6K050E	4E	1	50	5	22.1	832
A6K070E	4E	1	70	5	24.2	1053
A6K095E	4E	1	95	5	26.3	1304
A6K0120E	4E	1	120	5	27.8	1634
A6K0150E	4E	1	150	5	29.8	1894
A6K0185E	4E	1	185	5	32.1	2242
A6K0240E	4E	1	240	5	35.1	2842

ELAND PART NO.	CABLE TYPE	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL THICKNESS OF INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
Coil End Lead Type 4F Cable - 6.35/11kV						
A6K025F	4F	1	25	7.6	24.1	764
A6K035F	4F	1	35	7.6	25.5	911
A6K050F	4F	1	50	7.6	27.3	1114
A6K070F	4F	1	70	7.6	29.4	1344
A6K095F	4F	1	95	7.6	31.5	1610
A6K120F	4F	1	120	7.6	33.3	1919
A6K150F	4F	1	150	7.6	35.3	2248
A6K185F	4F	1	185	7.6	37.3	2616
A6K240F	4F	1	240	7.6	40.3	3252

CONDUCTORS

Class 5 Flexible Copper Conductors for Single Core and Multi-Core Cables

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DIAMETER OF WIRES IN CONDUCTOR mm	MAXIMUM RESISTANCE OF CONDUCTOR AT 20°C
		Plain Wires ohms/km
1.5	0.26	13.3
2.5	0.26	7.98
4	0.31	4.95
6	0.31	3.3
10	0.41	1.91
16	0.41	1.21
25	0.41	0.78
35	0.41	0.554
50	0.41	0.386
70	0.51	0.272
95	0.51	0.206
120	0.51	0.161
150	0.51	0.129
185	0.51	0.106
240	0.51	0.0801
300	0.51	0.0641
400	0.51	0.0486
500	0.61	0.0384
630	0.61	0.0287

The above table is in accordance with BS EN 60228 (previously BS 6360)

ELECTRICAL CHARACTERISTICS

Current Carrying Capacity in Free Air

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM CONTINUOUS CURRENT RATING		
	Single Cable Amps	2 Cables Bunched Amps	3 Cables Bunched Amps
1.5	-	25	22
2.5	-	34	30
4	-	46	41
6	-	58	53
10	-	80	73
16	-	108	97
25	166	147	128
35	206	182	160
50	250	220	197
70	321	282	254
95	391	343	311
120	455	398	364
150	525	459	422
185	602	523	485
240	711	618	577
300	821	713	670
400	989	855	790
500	1140	986	908
630	1323	1141	1047

Ambient temperature: 40°C
Conductor operating temperature: 90°C

The current-carrying capacities in this appendix are based upon the following reference ambient temperatures:

For non-sheathed and sheathed cables in air, irrespective of the Installation Method: 30°C
For buried cables, either directly in the soil or in ducts in the ground: 20°C

The current ratings stated are based on conservative assumptions, and therefore, in some instances, may be adjusted according to the ambient installation and operating conditions

DE-RATING FACTORS

AMBIENT TEMPERATURE	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C	65°C
DE-RATING FACTOR	1.14	1.09	1.05	1.00	0.95	0.90	0.84	0.77	0.71

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.