

(N)SHÖU O/J - 0.6/1kV Cable



Eland Product Group: **A7I**

APPLICATION

Flexible cable, rubber sheathed, suitable for mining applications alongside conveyor belts, for energy supply to equipment in movement, industrial apparatus and submersed pumps. It's resistant to abrasion, oils and flame retardant. Suitable for indoor and outdoor applications.

CONSTRUCTION

Phase Conductor

Class 5 flexible copper conductor according to VDE 0295 (IEC 60228)

Insulation

Rubber compound Type 3GI3 according to VDE 0207 Part 20

Inner Sheath

Rubber compound Type GM1b

Outer Sheath

Heavy duty rubber compound Type 5GM5 according to VDE 0207 Part 21

CABLE STANDARDS

Generally to VDE 0250 Part 812, VDE 0295, BS EN/IEC 60332-1-2, BS EN/IEC 60811-2-1



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)

600/1000V

Test Voltage

3kV

Maximum Short Circuit Temperature

+250°C

Ambient Temperature

Fixed: -40°C to +80°C

Flexed: -25°C to +80°C

Minimum Bending Radius

Fixed: 4 x overall diameter

Flexed: 5 x overall diameter

Maximum Tensile Load*

15N/mm²

Sheath Colour

● Black

Note

*Referred to the total phase conductors cross section

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	CONDUCTOR DIAMETER mm	MINIMUM OVERALL DIAMETER mm	MAXIMUM OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	MAXIMUM TENSILE LOAD N
A7I03015	3	1.5	1.5	9.7	10.3	141	68
A7I03025	3	2.5	1.9	11.1	11.7	200	113
A7I03040	3	4	2.4	13.2	13.8	297	180
A7I03060	3	6	2.9	14.4	15	381	270
A7I0310	3	10	3.8	17.4	18.5	590	450
A7I0316	3	16	4.8	19.5	20.6	797	720
A7I0325	3	25	6.1	23.7	24.8	1206	1125
A7I0335	3	35	7.2	26.6	27.7	1649	1575
A7I0350	3	50	8.9	31.8	33	2195	2250
A7I0370	3	70	10.6	35.3	36.5	3124	3150
A7I0395	3	95	12.3	40.9	42.6	4100	4275
A7I03120	3	120	13.8	43.4	45.1	4723	5400
A7I03150	3	150	15.5	47.8	49.5	5916	6750
A7I03185	3	185	17	53.1	55.4	7271	8325
A7I04015	4	1.5	1.5	10.5	11.1	173	90
A7I04025	4	2.5	1.9	12.9	13.5	274	150
A7I04040	4	4	2.4	14.3	14.9	356	240
A7I04060	4	6	2.9	15.7	16.3	459	360
A7I0410	4	10	3.8	19.1	20.2	729	600
A7I0416	4	16	4.8	22	23.1	1038	960
A7I0425	4	25	6.1	27	28.1	1576	1500
A7I0435	4	35	7.2	29.2	30.4	2078	2100
A7I0450	4	50	8.9	35	36.2	2967	3000
A7I0470	4	70	10.6	38.8	40.5	3931	4200
A7I0495	4	95	12.3	45.1	46.8	5165	5700
A7I04120	4	120	13.8	50	51.8	6152	7200
A7I04150	4	150	15.5	55	57.3	7537	9000
A7I04185	4	185	17	61	63.3	9420	11100
A7I05015	5	1.5	1.5	11.4	12	214	113
A7I05025	5	2.5	1.9	14	14.6	328	188
A7I05040	5	4	2.4	15.6	16.2	434	300
A7I05060	5	6	2.9	17.5	18.6	594	450
A7I0510	5	10	3.8	20.9	22	898	750
A7I0516	5	16	4.8	24.1	25.2	1283	1200
A7I0525	5	25	6.1	29.6	30.8	1965	1875
A7I07015	7	1.5	1.5	14.5	15.1	313	158
A7I07025	7	2.5	1.9	16.8	17.4	461	263
A7I12015	12	1.5	1.5	16.8	17.4	422	270
A7I12025	12	2.5	1.9	19.5	20.6	653	450
A7I18015	18	1.5	1.5	19.4	20.5	613	405
A7I18025	18	2.5	1.9	23.3	24.4	922	675
A7I24015	24	1.5	1.5	20.9	22	752	540
A7I24025	24	2.5	1.9	25.2	26.3	1147	900

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²		CONDUCTOR DIAMETER mm	MINIMUM OVERALL DIAMETER mm	MAXIMUM OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	MAXIMUM TENSILE LOAD N
		Phase Conductor	Earth Conductor					
A7I1050	3 + 3	50	25/3E	8.9	32.3	33.5	2481	2250
A7I1070	3 + 3	70	35/3E	10.6	35.7	37.4	3319	3150
A7I1095	3 + 3	95	50/3E	12.3	41.5	43.2	4324	4275
A7I1120	3 + 3	120	70/3E	13.8	45	46.7	5476	5400
A7I1150	3 + 3	150	70/3E	15.5	49.5	51.3	6468	6750
A7I1185	3 + 3	185	95/3E	17	54.9	57.2	8298	8325
A7I1240	3 + 3	240	120/3E	19.5	60.9	63.2	10473	10800

ELECTRICAL CHARACTERISTICS

Current Carrying Capacity

NOMINAL CROSS SECTIONAL AREA mm ²	LAYING ON THE FLOOR Amps	FREE IN AIR Amps	REELED						
			1 Layer Amps	2 Layer Amps	3 Layer Amps	4 Layer Amps	5 Layer Amps	6 Layer Amps	7 Layer Amps
1.5	24	25	19	15	12	10	9	6	5
2.5	30	32	24	18	15	13	11	8	7
4	41	43	33	25	20	17	16	11	9
6	53	56	42	32	26	22	20	14	12
10	74	78	59	45	36	31	28	20	16
16	99	104	79	60	49	42	38	27	22
25	131	138	105	80	64	55	50	35	29
35	162	170	130	99	79	68	62	44	36
50	202	212	162	123	99	85	77	55	44
70	250	263	200	153	123	105	95	68	55
95	301	316	241	184	147	126	114	81	66
120	352	370	282	215	172	148	134	95	77
150	404	424	323	246	198	170	154	109	89
185	461	484	369	281	226	194	175	124	101
240	528	554	422	322	259	222	201	143	116

Ambient temperature of 30°C

Voltage Drop

NOMINAL CROSS SECTIONAL AREA mm ²	POWER FACTOR			
	0.7	0.8	0.9	1
1.5	20.65	23.56	26.47	29.32
2.5	12.43	14.17	15.91	17.59
4	7.75	8.82	9.89	10.92
6	5.19	5.9	6.6	7.27
10	3.04	3.44	3.84	4.20
16	1.96	2.21	2.45	2.66
25	1.29	1.45	1.6	1.71
35	0.95	1.06	1.16	1.23
50	0.69	0.77	0.83	0.87
70	0.51	0.56	0.6	0.61
95	0.41	0.45	0.47	0.47
120	0.34	0.36	0.38	0.36
150	0.29	0.31	0.32	0.29
185	0.25	0.27	0.27	0.24
240	0.21	0.22	0.21	0.18

DE-RATING FACTORS

NO. OF OPERATING CORES	5	7	10	14	19	24
DE-RATING FACTOR	0.75	0.65	0.55	0.50	0.45	0.40

AMBIENT TEMPERATURE	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C	65°C	70°C	75°C	80°C
DE-RATING FACTOR	1.15	1.12	1.08	1.04	1.00	0.96	0.91	0.87	0.82	0.76	0.71	0.65	0.58	0.50	0.41