

SANS Type 66 / 66-ECC 3.8/6.6 kV Cable



Eland Product Group: B6C

APPLICATION

For mining machinery and portable apparatus including those in hazardous areas, including section feeders, medium sized draglines, shovels and drills.

CHARACTERISTICS

Voltage Rating U₀/U
3.8/6.6 kV

Temperature Rating
-25°C to +90°C

Minimum Bending Radius
6 x Overall Diameter

CONSTRUCTION

Conductor

Class 5 flexible stranded tinned annealed Copper

Insulation

EPR (Ethylene Propylene Rubber) thermosetting compound

Braid

Nylon /Tinned copper wires

Pilot Cores

Insulated with EPM (Ethylene Propylene Monomer)

Lay

Each power core individually screened with tinned copper/textile braid, laid up three insulated pilot cores

ECC Variant

One pilot core replaced with tinned conductor

Inner Sheath

CR (Polychloroprene Rubber)

Reinforcement braid

Open nylon braid - minimum 16 strings

Outer Sheath

CR (Polychloroprene Rubber)

Sheath Colour

● Black

STANDARDS

SANS 1520-2, SANS 1411-1, SANS 1411-3

UV resistant
Sunlight resistant
Oil resistant

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

ELAND PART NO.	POWER CORES					PILOT CORES			MAXIMUM TENSION kN	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
	CONDUCTOR SIZE mm ²	MAXIMUM WIRE DIAMETER mm	CONDUCTOR DIAMETER mm	MAXIMUM SCREEN WIRE DIAMETER mm	SCREEN CROSS-SECTION mm ²	CONDUCTOR SIZE mm ²	MAXIMUM WIRE DIAMETER mm	CONDUCTOR DIAMETER mm			
B6C3025/3025	25	0.41	6.8	0.31	28	10	0.41	4.2	1.1	50.1	380
B6C3035/3025	35	0.41	8.5	0.31	29	10	0.41	4.2	1.6	51.7	420
B6C3050/3025	50	0.41	10.3	0.31	32	10	0.41	4.2	2.3	55.3	510
B6C3070/3025	70	0.51	11.9	0.31	35	16	0.41	5.3	3.2	59.8	620
B6C3095/3025	95	0.51	13.5	0.31	39	16	0.41	5.3	4.3	64.6	740
B6C3120/3025	120	0.51	15.5	0.31	41	16	0.41	5.3	5.4	68.8	870
B6C3150/3025	150	0.51	17.3	0.31	44	25	0.41	6.8	6.8	73.1	1020
B6C3185/3025	185	0.51	20.2	0.31	47	25	0.41	6.8	8.3	77.8	1170
B6C3240/3025	240	0.51	22.9	0.31	50	25	0.41	6.8	10.8	83.1	1410

ECC DIMENSIONS (IF APPLICABLE)

POWER CORES	PILOT CORES CORES		NOMINAL WEIGHT kg/km
CONDUCTOR SIZE mm ²	ECC SIZE mm ²	ECC MAXIMUM WIRE DIAMETER mm	
25	16	0.41	390
35	25	0.41	440
50	25	0.41	550
70	35	0.41	640
95	50	0.41	760
120	70	0.51	890
150	95	0.51	1050
185	95	0.51	1190
240	120	0.51	1450

ELECTRICAL CHARACTERISTICS

POWER CORES							CURRENT RATING AT 30°C AMBIENT A	SHORT CIRCUIT RATING kA for 1s		
CONDUCTOR SIZE mm ²	MAXIMUM CONDUCTOR DC RESISTANCE AT 20°C Ω/km	MAXIMUM CONDUCTOR DC RESISTANCE AT 90°C Ω/km	REACTANCE Ω/km	IMPEDENCE (Z) at 90°C Ω/km	MINIMUM COMBINED SCREEN RESISTANCE AT 23°C Ω/km	MINIMUM COMBINED SCREEN & ECC RESISTANCE Ω/km	Laid out straight	Symmetrical fault current	Earth fault current (screens)	Earth fault current (ECC + screens)
25	0.795	1.05	0.124	1.06	1.6	0.7	105	3.1	1.6	3.6
35	0.565	0.749	0.116	0.758	1.2	0.5	130	4.3	2.1	5.0
50	0.393	0.521	0.109	0.532	0.8	0.5	160	6.1	3.1	5.0
70	0.277	0.368	0.105	0.383	0.7	0.4	195	8.5	3.5	7.5
95	0.210	0.279	0.101	0.297	0.6	0.3	230	11.6	4.1	9.0
120	0.164	0.218	0.096	0.238	0.6	0.23	260	14.6	4.1	11.5
150	0.132	0.176	0.092	0.199	0.6	0.18	300	18.3	4.1	14.0
185	0.108	0.145	0.091	0.171	0.6	0.18	340	23	4.1	14.0
240	0.0817	0.110	0.087	0.140	0.6	0.15	400	29	4.1	17.0

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.