

SANS Type 611 / 611ECC 6.35/11 kV



Eland Product Group: B6D

APPLICATION

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

CHARACTERISTICS

Voltage Rating U_o/U
6.35/11 kV

Temperature Rating
-25°C to +90°C

Minimum Bending Radius
9 x Overall Diameter

CONSTRUCTION

Conductor
Class 5 flexible stranded tinned annealed Copper

Insulation
EPR (Ethylene Propylene Rubber) thermosetting compound and a strippable semi-conducting core screen (triple extruded)

Braid
Nylon /Tinned copper wires

Pilot Core

Lay
Three tinned copper/nylon braid screened power cores and three unscreened pilot cores one in each interstice laid up in the right hand lay around semi-conductive filler centre. (Alternatively, one pilot can be replaced with a tinned ECC)

Inner Sheath
CR (Polychloroprene Rubber)

Reinforcement braid
Open nylon braid - minimum 16 strings

Outer Sheath
CR (Polychloroprene thermosetting) compound

Sheath Colour
● Black

STANDARDS

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

UV resistant
Sunlight resistant
Oil resistant

ISO/IEC 17025 LABORATORY TESTED

This product is subject to the Quality Assurance protocols of The Cable Lab®, an ISO/IEC 17025 accredited cable testing laboratory. Testing includes vertical flame, conductor resistance, tensile & elongation, and dimensional consistency, verified to published standards and approved product drawings.



8578



FS 672069



EMS 672067



OHS 672066

REGULATORY COMPLIANCE

This cable meets the requirements of the RoHS Directive 2011/65/EU. RoHS compliance has been tested and confirmed by The Cable Lab® as meeting the requirements of the BSI RoHS Trusted Kitemark™.



KN 024287





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			
B6D3025/3025	25	0.41	6.8	0.31	29	10	0.41	4.2	1.1	50.7	4.1
B6D3035/3025	35	0.41	8.5	0.31	31	10	0.41	4.2	1.6	52.2	4.5
B6D3050/3025	50	0.41	10.3	0.31	34	10	0.41	4.2	2.3	59.4	5.3
B6D3070/3025	70	0.51	11.9	0.31	37	16	0.41	5.3	3.2	60.4	6.5
B6D3095/3025	95	0.51	13.5	0.31	41	16	0.41	5.3	4.3	65.2	8.0
B6D3120/3025	120	0.51	15.5	0.31	43	16	0.41	5.3	5.4	71.3	9.8
B6D3150/3025	150	0.51	17.3	0.31	46	25	0.41	6.8	6.8	75.0	10.7
B6D3185/3025	185	0.51	20.2	0.31	49	25	0.41	6.8	8.3	85.1	13.4
B6D3240/3025	240	0.51	22.9	0.31	52	25	0.41	6.8	10.8	85.6	14.7

ECC DIMENSIONS (IF APPLICABLE)

POWER CORES		PILOT CORES		NOMINAL WEIGHT kg/km
CONDUCTOR SIZE mm ²	ECC SIZE mm ²	ECC MAXIMUM WIRE DIAMETER mm		
25	16	0.41		4.2
35	25	0.41		4.6
50	25	0.41		5.4
70	35	0.41		6.7
95	50	0.41		8.2
120	70	0.51		10.2
150	95	0.51		10.9
185	95	0.51		13.9
240	120	0.51		15.0

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)
25	0.795	1.05	0.134	1.06	1.6	0.7	105	3.1	1.6	3.6
35	0.565	0.749	0.124	0.759	1.2	0.5	130	4.3	2.1	5.0
50	0.393	0.521	0.117	0.534	0.8	0.5	160	6.1	3.1	5.0
70	0.277	0.368	0.113	0.385	0.7	0.4	195	8.5	3.5	7.5
95	0.210	0.279	0.108	0.299	0.6	0.3	230	11.6	4.1	9.0
120	0.164	0.218	0.103	0.241	0.6	0.23	260	14.6	4.1	11.5
150	0.132	0.176	0.098	0.201	0.6	0.18	300	18.3	4.1	14.0
185	0.108	0.145	0.096	0.174	0.6	0.18	340	22.57	4.1	14.0
240	0.0817	0.110	0.092	0.143	0.6	0.15	400	29.3	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.