



BS 7835 Aluminium AWA/SWA LSZH 3.8/6.6kV Cable



Eland Product Group: A9M

APPLICATION

Armoured power distribution cables with aluminium conductors for external and direct burial applications in power networks.

CHARACTERISTICS

Voltage Rating U_o/U (Um)
3.8/6.6 (7.2)kV

Test Voltage (AC)
12.5kV

Temperature Rating
Maximum operating temperature: 90°C
Maximum short circuit temperature: 250°C

Minimum Bending Radius
Single core: 15x overall diameter
Multi core: 12 x overall diameter

(Single core 12 x overall diameter and 3 core 10 x overall diameter where bends are positioned adjacent to a joint or termination provided that the bending is carefully controlled by the use of a former)

CONSTRUCTION

Conductor
Class 2 compacted aluminium conductor

Conductor Screen
Semi-conductive XLPE (Cross-Linked Polyethylene)

Insulation
XLPE (Cross-Linked Polyethylene)

Insulation Screen
Semi-conductive XLPE (Cross-Linked Polyethylene)

Insulation Screen
Concentric copper wires and copper tape

Inner Sheath
LSZH (Low Smoke Zero Halogen)

Armour
Single core: AWA (Aluminium Wire Armoured)
Multi core: SWA (Galvanised steel wire)

Sheath
LSZH (Low Smoke Zero Halogen)

Sheath Colour
● Red

STANDARDS

BS 7835, IEC/EN 60228,

Low Smoke Zero Halogen acc. to IEC/EN 61034-1/2,
IEC/EN 60754-1/2,
Flame Retardant acc. to IEC/EN 60332-1-2, IEC/EN 60332-3-24

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™.



KM 634287





DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
B4A066KV03035RL	1	35	24.40	823
B4A066KV03050RL	1	50	25.60	894
B4A066KV03070RL	1	70	27.70	1.034
B4A066KV03095RL	1	95	29.60	1.179
B4A066KV03120RL	1	120	30.80	1.285
B4A066KV03150RL	1	150	32.50	1.508
B4A066KV03185RL	1	185	35.20	1.773
B4A066KV03240RL	1	240	37.90	2.038
B4A066KV03300RL	1	300	40.80	2.357
B4A066KV03400RL	1	400	45.00	2.893
B4A066KV03500RL	1	500	49.80	3.553
B4A066KV03630RL	1	630	56.20	4.164
B4A066KV03050RL	3	50	49	3750
B4A066KV03070RL	3	70	54	4500
B4A066KV03095RL	3	95	57	5000
B4A066KV03120RL	3	120	60	5500
B4A066KV03150RL	3	150	64	6000
B4A066KV03185RL	3	185	68	6750
B4A066KV03240RL	3	240	76	8750
B4A066KV03300RL	3	300	82	10000
B4A066KV03400RL	3	400	90	12000
B4A066KV03500RL	3	500	97	14000

ELECTRICAL CHARACTERISTICS

Single Core

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM RESISTANCE OF CONDUCTOR AT 20°C ohms/km	OPERATING INDUCTANCE mH/km		OPERATING CAPACITY uF/km	CONTINUOUS CURRENT RATING Amps			
			Flat	Trefoil		In Ground		In Air	
						Flat	Trefoil	Flat	Trefoil
1	35	0.868	0.748	0.401	0.266	-	-	-	-
1	50	0.641	0.719	0.381	0.297	186	178	233	188
1	70	0.443	0.684	0.357	0.339	234	217	280	235
1	95	0.320	0.659	0.342	0.381	287	259	344	286
1	120	0.253	0.636	0.327	0.416	338	298	392	329
1	150	0.206	0.620	0.319	0.454	388	333	441	376
1	185	0.164	0.602	0.310	0.495	449	377	510	428
1	240	0.125	0.579	0.300	0.556	530	438	587	508
1	300	0.100	0.562	0.295	0.617	605	495	682	586
1	400	0.0788	0.543	0.290	0.681	678	562	781	676
1	500	0.0605	0.525	0.283	0.758	762	633	883	772
1	630	0.0469	0.507	0.276	0.853	858	712	1007	882



ELECTRICAL CHARACTERISTICS

Multi Core

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM RESISTANCE OF CONDUCTOR AT 20°C ohms/km	OPERATING INDUCTANCE mH/km	OPERATING CAPACITY uF/km	CONTINUOUS CURRENT RATING Amps	
					In Ground at 20°C	In Air at 30°C
3	50	0.641	0.33	0.31	162	160
3	70	0.443	0.31	0.37	199	199
3	95	0.320	0.30	0.41	238	242
3	120	0.253	0.29	0.44	271	280
3	150	0.206	0.28	0.49	304	318
3	185	0.164	0.27	0.53	345	365
3	240	0.125	0.27	0.57	401	431
3	300	0.100	0.26	0.58	516	649
3	400	0.0778	0.26	0.61	572	737
3	500	0.0605	0.25	0.65	638	835