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 Uo/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

THE CABLE LAB®

AN ISO/IEC 17025 AND IECEE 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.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²	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 mm²	MAXIMUM RESISTANCE OF CONDUCTOR AT 20°C ohms/km	OPERATING INDUCTANCE mH/km		OPERATING CAPACITY uF/km	CONTINUOUS CURRENT RATING Amps			
						In Ground		In Air	
			Flat	Trefoil		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

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ELECTRICAL CHARACTERISTICS

Multi Core

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²	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