BS 7835 3.8/6.6kV Cable

Eland Product Group: A9M

APPLICATION

Armoured power distribution cables 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)
15kV

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 stranded compacted copper conductor

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

Insulation
XLPE (Cross-Linked Polyethylene)

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

MetallicScreen
Concentric copper wires and copper tape

Separator
Binding tape

Inner Sheath
LSZH (Low Smoke Zero Halogen)

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

Sheath
LSZH (Low Smoke Zero Halogen)

Sheath Colour
● Red

STANDARDS

BS 7835, IEC/EN 60228

Flame Retardant according to IEC/EN 60332-1-2, IEC/EN 60332-3-24
Low Smoke Halogen Free according to IEC/EN 60754-1/2, IEC/EN 61034-1/2

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.

UKAS ISO/IEC 17025 Testing laboratory accreditation 8578
bsi. ISO 9001 Quality Management FS 672069
ISO 14001 Environmental Management EMS 672067
ISO 45001 Occupational Health and Safety Management 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™.

bsi. RoHS Trusted KITEMARK™ KM 634267
RoHS

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
A9M066KV01035RL	1	35	24.30	1.023
A9M066KV01050RL	1	50	25.50	1.171
A9M066KV01070RL	1	70	27.30	1.418
A9M066KV01095RL	1	95	29.20	1.719
A9M066KV01120RL	1	120	31.10	2.013
A9M066KV01150RL	1	150	32.30	2.386
A9M066KV01185RL	1	185	35.00	2.866
A9M066KV01240RL	1	240	37.70	3.486
A9M066KV01300RL	1	300	41.70	4.256
A9M066KV01400RL	1	400	47.10	5.406
A9M066KV01500RL	1	500	51.90	6.693
A9M066KV01630RL	1	630	55.80	8.212
A9M066KV03050RL	3	50	48	4500
A9M066KV03070RL	3	70	52	5500
A9M066KV03095RL	3	95	56	6500
A9M066KV03120RL	3	120	60	7500
A9M066KV03150RL	3	150	63	8500
A9M066KV03185RL	3	185	67	10000
A9M066KV03240RL	3	240	74	13000
A9M066KV03300RL	3	300	80	15500
A9M066KV03400RL	3	400	89	19000

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 at 20°C		In Air at 30°C	
			Flat	Trefoil		Flat	Trefoil	Flat	Trefoil
1	35	0.524	0.748	0.401	0.266	201	191	238	199
1	50	0.387	0.719	0.381	0.297	241	227	285	241
1	70	0.268	0.684	0.357	0.339	301	277	356	301
1	95	0.193	0.659	0.342	0.381	364	331	435	365
1	120	0.153	0.636	0.327	0.416	424	379	496	419
1	150	0.124	0.620	0.319	0.454	479	422	554	479
1	185	0.0991	0.602	0.310	0.495	549	476	637	543
1	240	0.0754	0.579	0.300	0.556	595	550	746	640
1	300	0.0601	0.562	0.295	0.617	626	591	831	722
1	400	0.0470	0.543	0.290	0.681	675	662	920	827
1	500	0.0366	0.525	0.283	0.758	748	744	1043	949
1	630	0.0283	0.507	0.276	0.853	981	856	1180	1076

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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	0.387	0.33	0.30	208	196
3	70	0.268	0.31	0.35	255	249
3	95	0.193	0.29	0.39	307	307
3	120	0.153	0.28	0.43	353	353
3	150	0.124	0.28	0.47	396	406
3	185	0.0991	0.27	0.51	447	464
3	240	0.0754	0.26	0.55	523	548
3	300	0.0601	0.26	0.57	581	632
3	400	0.0470	0.26	0.59	653	726