

6381B BS 7211 / IEC 60502-1 LSZH Cable



Eland Product Group: A1F/LS

APPLICATION

Flexible single core insulated and sheathed LSZH cable. Suitable for DC power supplies on telecoms equipment and power applications where flexibility is required. For installations where fire, smoke emission and toxic fumes create a potential risk to life and equipment.

CHARACTERISTICS

Voltage Rating U_o/U

Up to 35mm²: 450/750V
50mm² and above: 0.6/1kV

Temperature Rating

Fixed: 0°C to +90°C
Maximum operating temperature: +90°C
Short-circuit temperature: +250°C

Minimum Bending Radius

Up to 50mm²: 3 x overall diameter 70mm² and above: 4 x overall diameter

CONSTRUCTION

Conductor

Class 5 flexible annealed copper conductor

Insulation

XLPE (Cross-Linked Polyethylene)

Sheath

LSZH (Low Smoke Zero Halogen)

Sheath Colour

● Blue ● Grey ● Green/Yellow
Other colours available upon request

STANDARDS

BS 7211, IEC 60502-1, EN 60228

Flame Retardant according to IEC/EN 60332-1-2

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 is compliant with European Regulation EN 50575, the Construction Products Regulation.



This cable meets the requirements of the Low Voltage Directive 2014/35/EU, 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 mm ²	NOMINAL DIAMETER OF CONDUCTOR mm	NOMINAL INSULATION THICKNESS mm	NOMINAL OUTER SHEATH THICKNESS mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
A1FY*/0015LS	1	1.5	1.51	0.7	0.8	4.5	30
A1FY*/0025LS	1	2.5	1.95	0.7	0.8	4.95	40
A1FY*/004LS	1	4	2.45	0.7	0.9	5.65	58
A1FY*/006LS	1	6	3.6	0.7	0.8	6.5	78
A1FY*/010LS	1	10	3.96	0.7	0.8	7.2	120
A1FY*/016LS	1	16	5.15	0.7	0.9	8.5	178
A1FY*/025LS	1	25	6.5	0.9	0.9	10.3	263
A1FY*/035LS	1	35	7.5	0.9	1	11.5	361
A1FY*/050LS	1	50	9.5	1	1.1	14	518
A1FY*/070LS	1	70	11.35	1.1	1.1	16	704
A1FY*/095LS	1	95	12.9	1.1	1.2	18	918
A1FY*/120LS	1	120	14.8	1.2	1.2	20	1159
A1FY*/150LS	1	150	16.2	1.4	1.25	22	1437
A1FY*/185LS	1	185	17.9	1.6	1.25	24.5	1740
A1FY*/240LS	1	240	20.5	1.8	1.3	27	2252

* Designates the sheath colour. For each Eland Cables part number replace with the colour code as listed below e.g. A1FYBL/BL0015LS = 1.5mm² Blue(Blue)

COLOUR CODES

COLOUR	Blue	Grey	Green/Yellow
CODE	BL/BL	GR/GR	GY/GY

CONDUCTORS

Class 5 Stranded Conductors for Single Core and Multi-Core Cables

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DIAMETER OF WIRES IN CONDUCTOR mm	MAXIMUM RESISTANCE OF CONDUCTOR AT 20°C ohms/km
		Plain Wires
1.5	0.26	13.3
2.5	0.26	7.98
4	0.31	4.95
6	0.31	3.3
10	0.41	1.91
16	0.41	1.21
25	0.41	0.78
35	0.41	0.554
50	0.41	0.386
70	0.51	0.272
95	0.51	0.206
120	0.51	0.161
150	0.51	0.129
185	0.51	0.106
240	0.51	0.0801

The above table is in accordance with EN 60228



ELECTRICAL CHARACTERISTICS

Current Carrying Capacity

NOMINAL CROSS SECTIONAL AREA mm ²	REFERENCE METHOD A (ENCLOSED IN CONDUIT IN THERMALLY INSULATING WALL ETC) Amps		REFERENCE METHOD B (ENCLOSED IN CONDUIT IN WALL OR IN TRUNKING ETC) Amps		REFERENCE METHOD C (CLIPPED DIRECT) Amps		REFERENCE METHOD F IN FREE AIR OR ON A PERFORATED CABLE TRAY ETC HORIZONTAL OR VERTICAL ETC TOUCHING Amps			REFERENCE METHOD G IN FREE AIR) SPACED 1 x OD Amps	
	2 Cables Single-Phase AC or DC	3 or 4 Cables Three-Phase AC	2 Cables Single-Phase AC or DC	3 or 4 Cables Three-Phase AC	2 Cables Single-Phase AC or DC	3 or 4 Cables Three-Phase AC	2 Cables Single-Phase AC or DC	3 Cables Three-Phase AC		Horizontal	Vertical
								Flat	Trefoil		
1.5	19	17	23	20	25	23	-	-	-	-	-
2.5	26	23	31	28	34	31	-	-	-	-	-
4	35	31	42	37	46	41	-	-	-	-	-
6	45	40	54	48	59	54	-	-	-	-	-
10	61	54	75	66	81	74	-	-	-	-	-
16	81	73	100	88	109	99	-	-	-	-	-
25	106	95	133	117	143	130	161	141	135	182	161
35	131	117	164	144	176	161	200	176	169	226	201
50	158	141	198	175	228	209	242	216	207	275	246
70	200	179	253	222	293	268	310	279	268	353	318
95	241	216	306	269	355	326	377	342	328	430	389
120	278	249	354	312	413	379	437	400	383	500	454
150	318	285	393	342	476	436	504	464	444	577	527
185	362	324	449	384	545	500	575	533	510	661	605
240	424	380	528	450	644	590	679	634	607	781	719
300	486	435	603	514	743	681	783	736	703	902	833
400	-	-	683	584	868	793	940	868	823	1085	1008
500	-	-	783	666	990	904	1083	998	946	1253	1169
630	-	-	900	764	1130	1033	1254	1151	1088	1454	1362

Ambient temperature: 30°C

Conductor operating temperature: 90°C

Notes

1. Where a conductor operates at a temperature exceeding 70°C it must be ascertained that the equipment connected to the conductor is suitable for the conductor operating temperature (see Regulations 512.1.2 of the 18th Edition of IEE Wiring Regulations BS7671 and IEC 60364-5-52).

2. Where cables in this table are connected to equipment or accessories designed to operate at a temperature not exceeding 70°C, the current ratings given in the equivalent table for 70°C thermoplastic insulated cables (Table 4D1A) MUST BE USED (See Regulation 523.1 of the 18th Edition of IEE Wiring Regulations BS7671 and IEC 60364-5-52.)

The above table is in accordance with Table 4E1A from the 18th Edition of IEE Wiring Regulations BS7671 and IEC 60364-5-52.



VOLTAGE DROP

NOMINAL CROSS SECTIONAL AREA mm ²	VOLTAGE DROP mV/A/m
1.5	-
2.5	-
4	12
6	6.6
10	3.82
16	2.42
25	1.56
35	1.108
50	0.772
70	0.544
95	0.412
120	0.322
150	0.258
185	0.212
240	0.1602

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.