

624-B LSZH Twin and Earth

Eland Product Group **A9T**

Application

Domestic wiring cable for the surface wiring of sockets and lighting where fire, smoke emission and toxic fumes create a potential threat to life and equipment. Can be installed in fixed installations in dry or damp premises clipped to surface, on trays or in free air where mechanical damage would not be an issue. Suitable for laying in conduit or trunking where mechanical protection is required.

Standards

BS7211
EN 50268
BS EN 50267-2-1
EN 50267
EN 50265
IEC 60332

Conductor

Plain copper conductors to BS EN 60228:2005 (previously BS6360)
Class 1 solid: 1.5mm² and 2.5mm²
Class 2 stranded: 4.0mm², 6.0mm² and 10.0mm²
Class 2 stranded compacted: 16.0mm²

Circuit Protection

Conductor (Earth)
Class 1 solid plain copper conductor: 1.0mm², 1.5mm², 2.5mm², 4mm² and 6mm²
Class 2 stranded plain copper conductor: 10mm² and 16mm²

Insulation

XLPE (Cross-linked Polyethylene)

Sheath

LSZH (Low Smoke Zero Halogen)

Sheath Colour

White

Voltage Rating

300/500V

Temperature Rating

Operating Temperature: -25°C to 90°C

Note:

Where a conductor operates at a temperature exceeding 70°C it shall be ascertained that the equipment connected to the conductor is suitable for the conductor operating temperature (see regulation 512-02 of BS7671, the 16th Edition of IEE Wiring Regulations)



Dimensions

Eland Part Number	No. of Cores x Nominal Cross Sectional Area # x mm ²	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Nominal Cable Dimension (Thickness x Width) mm	Nominal Weight kg/Km
A9T6242B015W	2 x 1.5	0.7	0.9	4.80 x 8.91	88
A9T6242B025W	2 x 2.5	0.7	1.0	5.40 x 10.16	123
A9T6242B040W	2 x 4.0	0.7	1.0	6.00 x 11.36	162
A9T6242B060W	2 x 6.0	0.7	1.1	6.75 x 13.04	225
A9T6242B10W	2 x 10.0	0.7	1.2	7.80 x 15.80	340
A9T6242B16W	2 x 16.0	0.7	1.3	8.80 x 18.15	492
A9T6243B015W	3 x 1.5	0.7	0.9	4.80 x 11.91	117

Conductors

Class 1 solid conductors for Single Core and Multi-Core cables

1	2
Nominal Cross Sectional Area mm ²	Maximum Resistance of Conductor at 20°C
	Circular, Annealed Copper Conductors ohms/Km
1.50	12.1000
2.50	7.4100

Table in accordance with BS EN 60228:2005 (previously BS6360)

Class 2 stranded conductors for Single Core and Multi-Core cables

1	2	4	8
Nominal Cross Sectional Area mm ²	Minimum Number of Wires in the Conductor		Maximum Resistance of Conductor at 20°C
	Circular	Circular Compacted	
1.50	7	6	12.1000
2.50	7	6	7.4100
4.00	7	6	4.6100
6.00	7	6	3.0800
10.00	7	6	1.8300
16.00	7	6	1.1500

Table in accordance with BS EN 60228:2005 (previously BS6360)

Datasheet Continues »

Minimum Bending Radius

15 x overall diameter

Core Identification2 Cores: Blue, Brown
+ Plain3 Cores: Brown, Black,
Grey + Plain**Electrical Characteristics****Current Carrying Capacity (amperes) and Voltage Drop (per ampere per metre)**

Nominal Cross Sectional Area mm ²	Reference Method 100# (Above a plasterboard ceiling covered by thermal insulation not exceeding 100mm in thickness) Amps	Reference Method 101# (Above a plasterboard ceiling covered by thermal insulation exceeding 100mm in thickness) Amps	Reference Method 102# (In a stud wall with thermal insulation with cable touching the inner wall surface) Amps	Reference Method 103# (In a stud wall with thermal insulation with cable not touching the inner wall surface) Amps	Reference Method C* (Clipped Direct) Amps	Reference Method A* (Enclosed in conduit in an insulated wall) Amps	Voltage Drop mV/A/m
1	2	3	4	5	6	7	8
1.5	16	13	16	10.0	20	14.5	29.0
2.5	21	17	21	13.5	27	20.0	18.0
4.0	27	22	27	17.5	37	26.0	11.0
6.0	34	27	35	23.5	47	32.0	7.3
10.0	45	36	47	32.0	64	44.0	4.4
16.0	57	46	63	42.5	85	57.0	2.8

Ambient temperature: 30°C

Conductor operating temperature: 70°C

- A* For full installation method refer to Table 4A2 Installation Method 2 but for flat twin and earth cable
 C* For full installation method refer to Table 4A2 Installation Method 20 but for flat twin and earth cable
 100# For full installation method refer to Table 4A2 Installation Method 100
 101# For full installation method refer to Table 4A2 Installation Method 101
 102# For full installation method refer to Table 4A2 Installation Method 102
 103# For full installation method refer to Table 4A2 Installation Method 103

Wherever practicable, a cable is to be fixed in a position such that it will not be covered with thermal insulation. Regulation 523.7, BS5803-5: Appendix C: Avoidance of overheating of electric cables, Building Regulations Approved document B and Thermal insulation: avoiding risks, BR 262, BRE, 2001 refer.

The above table is in accordance with Table 4D5 of the 17th Edition of IEE Wiring Regulations.

The Current Carrying Capacities in this appendix are based upon the following reference ambient temperatures:
 For non-sheathed and sheathed cables in air, irrespective of the Installation Method: 30°C
 For buried cables, either directly in the soil or in ducts in the ground: 20°C

The current ratings stated are based on conservative assumptions, and therefore, in some instances, may be adjusted according to the ambient installation and operating conditions.