

318-B LSZH Cable

Eland Product Group **A5Z**

Application

Used as an indoor general wiring cable primarily for installations in public areas. Examples include use on pendant lighting drops or as a general supply lead within hospital or airport projects. For installation where fire, smoke emission and toxic fumes create a potential threat to life and equipment.

Standards

0.5 - 2.5mm² to BS6500,
4.0mm² to BS7919
6.0mm² generally to BS7919

Conductor

Class 5 flexible plain copper conductors to BS EN 60228:2005 (previously BS6360)

Insulation

LSZH (Low Smoke Zero Halogen)

Sheath

LSZH (Low Smoke Zero Halogen)

Sheath Colour

White or Black

Voltage Rating

300/500V

Temperature Rating

-30°C to +70°C

Minimum Bending Radius

6 x overall diameter

Core Identification

2 Cores: Blue, Brown

3 Cores: Green/Yellow, Blue, Brown

4 Cores: Green/Yellow, Brown, Black, Grey



Dimensions

| Eland Part Number | No. of Cores x Nominal Cross Sectional Area # x mm ² | Nominal Thickness of Insulation mm | Nominal Overall Diameter mm | Nominal Weight kg/Km |
|-------------------|---|------------------------------------|-----------------------------|----------------------|
| A5Z020050* | 2 x 0.50 | 0.6 | 5.6 | 46 |
| A5Z020075* | 2 x 0.75 | 0.6 | 6.2 | 57 |
| A5Z02010* | 2 x 1.00 | 0.6 | 6.6 | 67 |
| A5Z02015* | 2 x 1.50 | 0.7 | 7.6 | 90 |
| A5Z02025* | 2 x 2.50 | 0.8 | 9.2 | 136 |
| A5Z0204* | 2 x 4.00 | 0.8 | 10.6 | 189 |
| A5Z0206* | 2 x 6.00 | 0.8 | 11.8 | 246 |
| A5Z030050* | 3 x 0.50 | 0.6 | 6.0 | 55 |
| A5Z030075* | 3 x 0.75 | 0.6 | 6.6 | 69 |
| A5Z03010* | 3 x 1.00 | 0.6 | 7.0 | 80 |
| A5Z03015* | 3 x 1.50 | 0.7 | 8.3 | 113 |
| A5Z03025* | 3 x 2.50 | 0.8 | 10.0 | 170 |
| A5Z0304* | 3 x 4.00 | 0.8 | 11.5 | 238 |
| A5Z0306* | 3 x 6.00 | 0.8 | 12.8 | 314 |
| A5Z040050* | 4 x 0.50 | 0.6 | 6.7 | 70 |
| A5Z040075* | 4 x 0.75 | 0.6 | 7.2 | 84 |
| A5Z04010* | 4 x 1.00 | 0.6 | 7.7 | 100 |
| A5Z04015* | 4 x 1.50 | 0.7 | 9.1 | 139 |
| A5Z04025* | 4 x 2.50 | 0.8 | 11.0 | 211 |
| A5Z0404* | 4 x 4.00 | 0.8 | 12.6 | 296 |
| A5Z0406* | 4 x 6.00 | 0.8 | 14.4 | 404 |
| A5Z05005* | 5 x 0.50 | 0.6 | 7.4 | 83 |
| A5Z050075* | 5 x 0.75 | 0.6 | 8.1 | 103 |
| A5Z05010* | 5 x 1.00 | 0.6 | 8.6 | 121 |
| A5Z05015* | 5 x 1.50 | 0.7 | 10.2 | 170 |
| A5Z070050* | 7 x 0.50 | 0.6 | 8.3 | 109 |
| A5Z070075* | 7 x 0.75 | 0.6 | 9.1 | 135 |
| A5Z07010* | 7 x 1.00 | 0.6 | 9.5 | 156 |
| A5Z07015* | 7 x 1.50 | 0.7 | 11.4 | 222 |

* Eland Part numbers shown above designate the sheath colour (*). For each colour substitute * for a colour code as; White: WH and Black: BK

Conductors

Class 5 flexible Copper Conductors for Single Core and Multi-Core cables

| 1 | 2 | 3 |
|--|---|---|
| Nominal Cross Sectional Area mm ² | Maximum Diameter of Wires in Conductor mm | Maximum Resistance of Conductor at 20°C Plain Wires ohms/km |
| 0.50 | 0.21 | 39.0000 |
| 0.75 | 0.21 | 26.0000 |
| 1.00 | 0.21 | 19.5000 |
| 1.50 | 0.26 | 13.3000 |
| 2.50 | 0.26 | 7.9800 |
| 4.00 | 0.31 | 4.9500 |
| 6.00 | 0.31 | 3.3000 |

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

Electrical Characteristics for size 0.5-2.5mm²

Current Carrying Capacity (amperes): and Mass Supportable (kg)

| Conductor Cross Sectional Area mm ² | Current Carrying Capacity | | Maximum Mass Supportable by Twin Flexible Cord (see Regulations 522.7.2 and 559.6.1.5) Amps |
|--|---------------------------|---------------------|---|
| | Single Phase AC Amps | Three Phase AC Amps | |
| 1 | 2 | 3 | 4 |
| 0.50 | 3 | 3 | 2 |
| 0.75 | 6 | 6 | 3 |
| 1.00 | 10 | 10 | 5 |
| 1.50 | 16 | 16 | 5 |
| 2.50 | 25 | 20 | 5 |

Rating factor for ambient temperature

60°C thermoplastic or thermosetting insulated cords:

| Ambient Temperature | 35°C | 40°C | 45°C | 50°C | 55°C |
|---------------------|------|------|------|------|------|
| Rating Factor | 0.91 | 0.82 | 0.71 | 0.58 | 0.41 |

The above table is in accordance with Table 4F3A of the 17th Edition of IEE Wiring Regulations.

Voltage Drop (per ampere per metre)

| Conductor Cross Sectional Area mm ² | DC or Single Phase AC mV/A/m | Three Phase AC mV/A/m |
|--|------------------------------|-----------------------|
| 1 | 2 | 3 |
| 0.50 | 93 | 80 |
| 0.75 | 62 | 54 |
| 1.00 | 46 | 40 |
| 1.50 | 32 | 27 |
| 2.50 | 19 | 16 |

Conductor operating temperature: 60°C*

* The tabulated values above are for 60°C thermoplastic or thermosetting insulated flexible cords and for other types of flexible cords they are to be multiplied by the following factors:

The above table is in accordance with Table 4F3B of the 17th Edition of IEE Wiring Regulations.

Electrical Characteristics for size 4.0mm² and above

Current Carrying Capacity (amperes)

| Conductor Cross Sectional Area mm ² | Single Phase AC or DC | Three Phase AC |
|--|--|---|
| | 1 Two Core Cable with or without protective conductor A | 1 Three Core, Four Core or Five Core Cable A |
| 1 | 2 | 3 |
| 4 | 30 | 26 |
| 6 | 39 | 34 |

Ambient temperature: 30°C

Conductor operating temperature: 60°C

1. The current ratings tabulated are for cables in free air but may also be used for cables resting on a surface. If the cable is to be wound on a drum on load the ratings should be reduced in accordance with NOTE 2 below and for cables which may be covered, NOTE 3 below.

2. Flexible cables wound on reeling drums

The current ratings of cables used on reeling drums are to be reduced by the following factors:

| | |
|---------------------|-------------------------------------|
| a) Radial type drum | b) Ventilated cylindrical type drum |
| ventilated: 85% | 1 layer of cable: 85% |
| unventilated: 75% | 2 layers of cable: 65% |
| | 3 layers of cable: 45% |
| | 4 layers of cable: 35% |

A radial type drum is one where spiral layers of cable are accommodated between closely spaced flanges; if fitted with solid flanges the ratings given above should be reduced and the drum is described as non-ventilated. If the flanges have suitable apertures the drum is described as ventilated.

A ventilated cylindrical cable drum is one where layers of cable are accommodated between widely spaced flanges and the drum and end flanges have suitable ventilating apertures.

3. Where cable may be covered or coiled up whilst on load, or the air movement over the cable restricted, the current rating should be reduced.

It is not possible to specify the amount of reduction but the table of rating factors for reeling drums can be used as a guide.

The above table is in accordance with Table 4F1A of the 17th Edition of IEE Wiring Regulations.

Datasheet Continues »

Voltage Drop (per ampere per metre)

| Conductor Cross Sectional Area mm ² | Two Core Cable DC mV/A/m | Two Core Cable Single Phase AC mV/A/m | 1 Three Core, Four Core or Five Core Cable Three Phase AC mV/A/m |
|---|-----------------------------|--|---|
| 1 | 2 | 3 | 4 |
| 4 | 12.0 | 12.0 | 10.0 |
| 6 | 7.8 | 7.8 | 6.7 |

Conductor operating temperature: 60°C

*A larger voltage drop will result if the cables are spaced.

The above table is in accordance with Table 4F1B of the 17th Edition of IEE Wiring Regulations.