

Enhanced Fire Resistant Cable BS7629-1



Eland Product Group: A6F

APPLICATION

Enhanced fire Resistant cables for use primarily in fire detection, fire alarm, voice alarm, and emergency lighting circuits. These cables are designed to continue to operate for a period of time in a fire situation. 'Enhanced grade' fire resistance is recommended for systems, in particular building types, in which cables might need to operate correctly during a fire for periods in excess of those normally required for single phase evacuation of a building.

CHARACTERISTICS

Voltage Rating Uo/U
300/500V

Temperature Rating
-40°C to +90°C

Minimum Bending Radius
6 x overall diameter

CONSTRUCTION

Conductor

1.5mm² - 2.5mm²: Class 1 solid conductor
4mm²: Class 2 stranded conductor

Insulation

Mica/Glass fire resistant tape covered by high performance fire resistant silicone rubber

Overall Screen

Al/PET (Aluminium/Polyester Tape)

Circuit Protective Conductor

Tinned copper

Outer Sheath

LSZH (Low Smoke Zero Halogen)

Core Identification

2 cores: ● Blue ● Brown + Bare Earth
3 cores: ● Brown ● Black ● Grey + Bare Earth
4 cores: ● Blue ● Brown ● Black ● Grey

Sheath Colour

● Red ○ White

CABLE THIRD-PARTY ACCREDITATION



Cables are tested and accredited by BASEC, The British Approvals Service for Cables

We supply LPCB certified products

Certified by the Loss Prevention Certification Board (LPCB) for security and fire protection and listed in Red Book Live

STANDARDS

BS 7629-1, BS 5839-1, BS EN/IEC 60754-1/2, BS EN 61034-2, BS EN 50200-PH30, PH60, PH90, PH120, BS 6387, BS 5266-1, BS 8519, BS 8434-2, BS EN 60228

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.



REGULATORY COMPLIANCE

This cable meets the requirements of the Low Voltage Directive 2014/35/EU and 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™.





DIMENSIONS

Class 1 Solid Plain Conductor

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	EARTH WIRE CONSTRUCTION n° /mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
A6F02015*/ENH	2	1.5	1/1.18	8.8	105
A6F02025*/ENH	2	2.5	1/1.75	10.2	150
A6F02040*/ENH	2	4	7/0.85	12.2	220
A6F03015*/ENH	3	1.5	1/1.38	9.3	130
A6F03025*/ENH	3	2.5	1/1.75	10.8	190
A6F03040*/ENH	3	4	7/0.85	13	280
A6F04015*/ENH	4	1.5	1/1.38	10.3	165
A6F04025*/ENH	4	2.5	1/1.38	12	240
A6F04040*/ENH	4	4	7/0.85	14.4	350

* Designates the sheath colour. For each Eland Cables part number replace with the colour code e.g. A6F02040RD/ENH – 4mm² Red

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	CONDUCTOR RESISTANCE AT 20°C Ω/km	INSULATION RESISTANCE AT 20°C MΩXkm	NOMINAL CAPACITANCE pF/m	
			Core / Core	Core / Screen
1	18.1	300	95	160
1.5	12.1	300	110	170
2.5	7.41	300	120	200
4	4.61	300	150	250

CURRENT CARRYING CAPACITY

Clipped Direct

NOMINAL CROSS SECTIONAL AREA mm ²	CURRENT RATING Amps	
	2 Core	3 and 4 Core
1	19	17
1.5	24	22
2.5	33	30
4	45	40

In Conduit or in Cable Tray

NOMINAL CROSS SECTIONAL AREA mm ²	CURRENT RATING Amps	
	2 Core	3 and 4 Core
1	17	15
1.5	22	19.5
2.5	30	26
4	40	35



VOLTAGE DROP

Clipped Direct

NOMINAL CROSS SECTIONAL AREA mm ²	VOLTAGE DROP mV/A/m	
	2 Core	3 and 4 Core
1	45	39
1.5	30	26
2.5	18	15
4	11	10

In Conduit or in Cable Tray

NOMINAL CROSS SECTIONAL AREA mm ²	VOLTAGE DROP mV/A/m	
	2 Core	3 and 4 Core
1	45	39
1.5	30	26
2.5	18	15
4	11	10

DE-RATING FACTORS

AMBIENT TEMPERATURE	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C	65°C
DE-RATING FACTOR	1.04	1.00	0.95	0.90	0.85	0.80	0.74	0.67	0.60

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.