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

We supply BASEC approved products
Cables are tested and certified 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, IEC/EN 60754-1/2, IEC/EN 61034-2, EN 50200-PH30-PH60-PH90-PH120, BS 6387, BS 5266-1, BS 8519 Cat 3, BS 8434-2, EN 60228

THE CABLE LAB®

AN ISO/IEC 17025 AND IECEE 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 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

Class 1 Solid Plain Conductor

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²	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 mm²	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 mm²	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 mm²	CURRENT RATING Amps	
	2 Core	3 and 4 Core
1	17	15
1.5	22	19.5
2.5	30	26
4	40	35

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VOLTAGE DROP

Clipped Direct

NOMINAL CROSS SECTIONAL AREA mm²	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 mm²	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