

# Firetec BS 7846 LPCB BASEC Approved Power Cable



Eland Product Group: **A6F**

## APPLICATION

Firetec Power is a fire resistant armoured cable suitable for use in fixed installations for power circuits, fire alarm systems and emergency lighting systems. It is robust, flexible and suitable for use inside and outside buildings, meeting the enhanced grade of BS 5839-1 26.2e

## CONSTRUCTION

### Conductor

Class 2 stranded copper conductor to BS EN 60228 (previously BS 6360)

### Separator

Mica/glass fire barrier tape

### Insulation

XLPE (Cross-Linked Polyethylene)

### Bedding

LSZH (Low Smoke Zero Halogen)

### Armour

SWA (Steel Wire Armour)

### Sheath

LSZH (Low Smoke Zero Halogen)

## CABLE STANDARDS

BS 7846, BS 5266, BS 8434-2, BS 5839-1 26.2e  
BS EN 50200 PH30, PH60, PH120  
BS 6387 C W and Z, BS EN 50267, BS EN 50268,  
BS EN 50265 and 50266, BS EN/IEC 60332,  
BS EN/IEC 60754, BS EN/IEC 61034  
LUL 1-085



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

## CHARACTERISTICS

### Voltage Rating (U<sub>o</sub>/U)

600/1000V

### Operating Temperature

-10°C to +90°C

### Minimum Bending Radius

Up to 25mm<sup>2</sup>: 6 x overall diameter

Above 25mm<sup>2</sup>: 8 x overall diameter

### Core Identification

2 core: ● Brown ● Blue

3 core: ● Brown ● Black ● Grey

4 core: ● Blue ● Brown ● Black ● Grey

5 core: ● Green/Yellow ● Blue ● Brown ● Black ● Grey

(5 core also available with ○ White numbered cores)

### Sheath Colour

● Black

**Note:** Cables above 4 core are not LUL approved

## DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	INSULATION RADIAL THICKNESS mm	GALVANISED STEEL ARMOUR WIRE DIAMETER mm	OUTER SHEATH RADIAL THICKNESS mm	OUTER SHEATH DIAMETER mm	NOMINAL WEIGHT kg/km
A6FP02015	2	1.5	0.6	0.9	1.4	11	240
A6FP02025	2	2.5	0.7	0.9	1.4	12	300
A6FP02040	2	4	0.7	0.9	1.4	13	360
A6FP02060	2	6	0.7	0.9	1.4	14	440
A6FP0210	2	10	0.7	0.9	1.5	16	580
A6FP0216	2	16	0.7	0.9	1.5	19	860
A6FP0225	2	25	0.9	1.25	1.6	22	1050
A6FP0235	2	35	0.9	1.6	1.7	26	1450
A6FP0250	2	50	1	1.6	1.8	25	1700
A6FP0270	2	70	1.1	1.6	1.9	28	2250
A6FP0295	2	95	1.1	2	2	32	3050
A6FP02120	2	120	1.2	2	2.1	35	3650
A6FP02150	2	150	1.4	2	2.2	39	4350
A6FP02185	2	185	1.6	2.5	2.4	44	5650
A6FP02240	2	240	1.7	2.5	2.5	47	6950
A6FP02300	2	300	1.8	2.5	2.6	52	8350
A6FP02400	2	400	2	2.5	2.8	58	11030
A6FP03015	3	1.5	0.6	0.9	1.3	11	260
A6FP03025	3	2.5	0.7	0.9	1.4	12	320
A6FP03040	3	4	0.7	0.9	1.4	13	400
A6FP03060	3	6	0.7	0.9	1.4	14	490
A6FP0310	3	10	0.7	1.25	1.5	17	760
A6FP0316	3	16	0.7	1.25	1.6	19	1020
A6FP0325	3	25	0.9	1.6	1.7	25	1600
A6FP0335	3	35	0.9	1.6	1.8	27	1950
A6FP0350	3	50	1	1.6	1.8	28	2250
A6FP0370	3	70	1.1	1.6	1.9	31	2000
A6FP0395	3	95	1.1	2	2.1	36	4100
A6FP03120	3	120	1.2	2	2.2	39	4950
A6FP03150	3	150	1.4	2.5	2.3	44	6350
A6FP03185	3	185	1.6	2.5	2.4	49	7600
A6FP03240	3	240	1.7	2.5	2.6	54	9550
A6FP03300	3	300	1.8	2.5	2.7	58	11550
A6FP03400	3	400	2	2.5	2.9	65	14400
A6FP04015	4	1.5	0.6	0.9	1.3	13.3	367
A6FP04025	4	2.5	0.7	0.9	1.4	14.7	454
A6FP04040	4	4	0.7	0.9	1.4	16	556
A6FP04060	4	6	0.7	1.25	1.5	18.2	783
A6FP0410	4	10	0.7	1.25	1.5	20	1029
A6FP0416	4	16	0.7	1.25	1.6	22.5	1367
A6FP0425	4	25	0.9	1.6	1.7	29.9	2240
A6FP0435	4	35	0.9	1.6	1.8	33.5	2705
A6FP0450	4	50	1	1.6	1.9	37.1	3375
A6FP0470	4	70	1.1	2	2.1	39.1	4560
A6FP0495	4	95	1.1	2	2.2	43	5805
A6FP04120	4	120	1.2	2.5	2.3	48.3	7430
A6FP04150	4	150	1.4	2.5	2.4	52.4	8820

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	INSULATION RADIAL THICKNESS mm	GALVANISED STEEL ARMOUR WIRE DIAMETER mm	OUTER SHEATH RADIAL THICKNESS mm	OUTER SHEATH DIAMETER mm	NOMINAL WEIGHT kg/km
A6FP04185	4	185	1.6	2.5	2.6	56.6	10600
A6FP04240	4	240	1.7	2.5	2.7	64.3	13380
A6FP04300	4	300	1.8	2.5	2.9	70.7	16255
A6FP04400	4	400	2	3.15	3.2	80.3	21145
A6FP05015	5	1.5	0.6	0.9	1.4	13.1	370
A6FP05025	5	2.5	0.7	0.9	1.4	14.6	470
A6FP05040	5	4	0.7	0.9	1.5	17	680
A6FP05060	5	6	0.7	1.25	1.5	18.5	810
A6FP0510	5	10	0.7	1.25	1.6	20.7	1090
A6FP0516	5	16	0.7	1.6	1.7	24.3	1640
A6FP0525	5	25	0.9	1.6	1.8	29	2250
A6FP0535	5	35	0.9	1.6	1.9	32	2850
A6FP0550	5	50	1	2	2	37	3860
A6FP0570	5	70	1.1	2	2.2	43	5200
A6FP07015	7	1.5	0.6	0.9	1.4	14	405
A6FP07025	7	2.5	0.7	0.9	1.4	16	520
A6FP07040	7	4	0.7	1.25	1.5	18	750
A6FP12015	12	1.5	0.6	1.25	1.5	18	675
A6FP12025	12	2.5	0.7	1.25	1.6	18	697
A6FP12040	12	4	0.7	1.6	1.6	24	1300
A6FP19015	19	1.5	0.6	1.25	1.6	21	890
A6FP19025	19	2.5	0.7	1.6	1.7	25	1350
A6FP19040	19	4	0.7	1.6	1.7	27.5	1750
A6FP27015	27	1.5	0.6	1.6	1.7	25	1300
A6FP27025	27	2.5	0.7	1.6	1.8	29	1700
A6FP27040	27	4	0.7	1.6	1.9	32.5	2350
A6FP37015	37	1.5	0.6	1.6	1.7	27.5	1650
A6FP37025	37	2.5	0.7	1.6	1.8	32	2300
A6FP37040	37	4	0.7	1.6	1.9	-	-
A6FP48015	48	1.5	0.6	1.6	1.8	31	1950
A6FP48025	48	2.5	0.7	2	2.0	37	3000
A6FP48040	48	4	0.7	2	2.1	-	-

## CONDUCTORS

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C ohms/km
1.5	12.1
2.5	7.41
4	4.61
6	3.08
10	1.83
16	1.15
25	0.727
35	0.524
50	0.387
70	0.268
95	0.193
120	0.153
150	0.124
185	0.0991
240	0.0754
300	0.0601
400	0.047

## ELECTRICAL CHARACTERISTICS

## Current Carrying Capacity

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	2 CORE			3, 4 AND 5 CORE			7, 12, 19, 27, 37 AND 48 CORE					
	Single-Phase			Three-Phase			Single-Phase			Three-Phase		
	Laid Direct Amps	In Ducts Amps	In Air Amps	Laid Direct Amps	In Ducts Amps	In Air Amps	Laid Direct Amps	In Ducts Amps	In Air Amps	Laid Direct Amps	In Ducts Amps	In Air Amps
1.5	38	31	31	32	26	26	38	31	31	32	26	26
2.5	49	41	41	42	34	35	49	41	41	42	34	35
4	65	53	55	55	45	47	65	53	55	55	45	47
6	81	67	70	69	56	59	-	-	-	-	-	-
10	109	89	95	92	75	82	-	-	-	-	-	-
16	141	115	126	119	96	107	-	-	-	-	-	-
25	183	148	164	152	124	140	-	-	-	-	-	-
35	219	178	202	182	149	172	-	-	-	-	-	-
50	259	211	244	217	177	209	-	-	-	-	-	-
70	317	260	306	266	218	263	-	-	-	-	-	-
95	381	313	378	319	263	324	-	-	-	-	-	-
120	433	357	437	363	300	376	-	-	-	-	-	-
150	485	401	499	406	338	430	-	-	-	-	-	-
185	547	455	576	458	382	495	-	-	-	-	-	-
240	632	527	680	529	442	584	-	-	-	-	-	-
300	708	592	775	592	496	672	-	-	-	-	-	-
400	799	669	892	667	570	766	-	-	-	-	-	-

## Voltage Drop

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	DC mV/A/m	SINGLE-PHASE AC mV/A/m	THREE-PHASE AC mV/A/m
1.5	31	31	27
2.5	19	19	16
4	12	12	10
6	7.9	7.9	6.8
10	4.7	4.7	4
16	2.9	2.9	2.5
25	1.85	1.9	1.65
35	1.35	1.35	1.15
50	0.98	1	0.87
70	0.67	0.69	0.6
95	0.49	0.52	0.45
120	0.39	0.42	0.37
150	0.31	0.35	0.3
185	0.25	0.29	0.26
240	0.195	0.24	0.21
300	0.155	0.21	0.185
400	0.12	0.19	0.165