

Firetec BS 7846 LPCB BASEC Approved Impact Power Cable



Eland Product Group: **A6F**

APPLICATION

Firetec Impact Power cables are fire resistant armoured cables designed for direct impact. Designed to meet the application of fire, direct impact and water jet as specified in BS 8491, making them suitable for use as 120 minute rated category 3 power cables according to BS 8519.

CABLE STANDARDS

BS 7846, BS 5266, BS EN 50200 PH30, PH60, PH120, BS 8519, BS 6387 C W and Z, BS EN 50267, BS EN 50268 BS EN 50265, 50266 BS EN/IEC 60332, BS 8491-F120, BS 7846-F2-F120 LUL 1-085, BS8491



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.

CONSTRUCTION

Conductor

Class 2 stranded copper conductor

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)

CHARACTERISTICS

Voltage Rating (U_o/U)

600/1000V

Operating Temperature

-10°C to +90°C

Minimum Bending Radius

Up to 25mm²: 6 x overall diameter

Above 25mm²: 8 x overall diameter

Core Identification

2 core: ● Brown ● Blue

3 core: ● Brown ● Black ● Grey

4 core: ● Blue ● Brown ● Black ● Grey

Sheath Colour

● Black

Note: Cables above 4 core are not BASEC, LPCB or LUL approved

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	INSULATION RADIAL THICKNESS mm	GALVANISED STEEL ARMOUR WIRE DIAMETER mm	OUTER SHEATH RADIAL THICKNESS mm	OUTER SHEATH DIAMETER mm	NOMINAL WEIGHT kg/km
A6FPI02040	2	4	0.7	1.25	1.4	20	755
A6FPI02060	2	6	0.7	1.25	1.4	20	815
A6FPI0210	2	10	0.7	1.25	1.5	20	830
A6FPI0216	2	16	0.7	1.25	1.5	22	860
A6FPI0225	2	25	0.9	1.25	1.6	25.4	1050
A6FPI0235	2	35	0.9	1.6	1.7	29.2	1450
A6FPI0250	2	50	1	1.6	1.8	25	1700
A6FPI0270	2	70	1.1	1.6	1.9	28	2250
A6FPI0295	2	95	1.1	2	2	32	3050
A6FPI02120	2	120	1.2	2	2.1	35	3650
A6FPI02150	2	150	1.4	2	2.2	39	4350
A6FPI02185	2	185	1.6	2.5	2.4	44	5650
A6FPI02240	2	240	1.7	2.5	2.5	47	6950
A6FPI02300	2	300	1.8	2.5	2.6	52	8350
A6FPI02400	2	400	2	2.5	2.8	58	11030
A6FPI03040	3	4	0.7	1.25	1.4	20	731
A6FPI03060	3	6	0.7	1.25	1.4	20	820
A6FPI0310	3	10	0.7	1.25	1.5	21	920
A6FPI0316	3	16	0.7	1.25	1.6	23.5	1020
A6FPI0325	3	25	0.9	1.6	1.7	28.4	1600
A6FPI0335	3	35	0.9	1.6	1.8	31.3	1950
A6FPI0350	3	50	1	1.6	1.8	28	2250
A6FPI0370	3	70	1.1	1.6	1.9	31	2000
A6FPI0395	3	95	1.1	2	2.1	36	4100
A6FPI03120	3	120	1.2	2	2.2	39	4950
A6FPI03150	3	150	1.4	2.5	2.3	44	6350
A6FPI03185	3	185	1.6	2.5	2.4	49	7600
A6FPI03240	3	240	1.7	2.5	2.6	54	9550
A6FPI03300	3	300	1.8	2.5	2.7	58	11550
A6FPI03400	3	400	2	2.5	2.9	65	14400
A6FPI04040	4	4	0.7	1.25	1.4	20	812
A6FPI04060	4	6	0.7	1.25	1.5	20.2	855
A6FPI0410	4	10	0.7	1.25	1.5	22.5	920
A6FPI0416	4	16	0.7	1.25	1.6	25.1	1250
A6FPI0425	4	25	0.9	1.6	1.7	30.8	1850
A6FPI0435	4	35	0.9	1.6	1.8	33.7	2300
A6FPI0450	4	50	1	1.6	1.9	31	2800
A6FPI0470	4	70	1.1	2	2.1	36	4050
A6FPI0495	4	95	1.1	2	2.2	40	5200
A6FPI04120	4	120	1.2	2.5	2.3	45	6700
A6FPI04150	4	150	1.4	2.5	2.4	50	8000
A6FPI04185	4	185	1.6	2.5	2.6	54	9750
A6FPI04240	4	240	1.7	2.5	2.7	60	12250
A6FPI04300	4	300	1.8	2.5	2.9	67	14850
A6FPI04400	4	400	2	3.15	3.2	77	19600
A6FPI07025	7	2.5	0.7	1.25	1.4	20	865
A6FPI07040	7	4	0.7	1.25	1.5	20	943

CONDUCTORS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C ohms/km
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 ²	2 CORE			3 AND 4 CORE		
	Single-Phase			Three-Phase		
	Laid Direct Amps	In Ducts Amps	In Air Amps	Laid Direct Amps	In Ducts Amps	In Air Amps
4	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 ²	DC mV/A/M	SINGLE-PHASE AC mV/A/M	THREE-PHASE AC mV/A/M
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