F120 Enhanced Fire Resistant Mains Cable 1kV - BS7846, BS8491, MGT, XLPE, SWA, LSZH - 25mm² to 400mm²

Description

Fireproof mains cable, suitable for fixed installations such as power circuits, fire alarm systems and emergency lighting. Specifically designed to meet the stringent standards of BS8491, which includes enhanced resistance to heat and fire, direct impact of 10N and water jet as would be produced by a fire fighting unit.

Key Features

Voltage Rating
600/1000 Volts

Minimum Bending Radius
8 x Overall Diameter

Flame Retardancy
BS EN/IEC 60332-1-2
BS EN/IEC 60332-3-24

Temperature Limits
Temperature Range:-20°C to +90°C

Core Colours

2 core - Brown, Blue

3 core - Brown, Black, Grey

4 core - Brown, Black, Grey, Blue

Sheath Colour: Black

Standards

- BS EN/IEC 60332-1-2
- Fire resistant to BS7846 F120
- BS EN/IEC 60332-3-24 (cat C). BS6837 Cat CWZ
- IEC/EN 61034-1/2, IEC/EN 60754-1/2

Construction

- **Conductor**: Class 2 stranded copper conductor
- **Insulation**: Cross Linked polyethylene (XLPE)
- **Bedding**: Low Smoke Zero Halogen (LSZH)
- **Fire Protection**: MICA Glass Fibre Tape
- **Armour**: Steel Wire Armour (SWA)
- **Outer Sheath**: Low Smoke Zero Halogen (LSZH)

QA Lab

Cleveland Cable Test & Training Lab
Our state-of-the-art cable testing facility ensures that every cable meets the highest standards of quality and compliance through continuous, rigorous testing. Where applicable, cables are independently tested and certified by BASEC to ensure full compliance.

CPR
Cleveland Cable Company is committed to compliance with the Construction Products Regulation (CPR). Where applicable, all cables manufactured after 1st July 2017 have been assessed in accordance with CPR requirements, with full supporting documentation available.

Our Sustainability Commitment

We are committed to the journey to Net Zero as a business partner, an employer and a community member.

By thinking and acting sustainably, we deliver excellent customer service while reducing carbon emissions in collaboration with our customers and suppliers.

ecovadis
Cleveland Cable Company has been independently assessed by EcoVadis, a globally recognised provider of business sustainability ratings. Our score places us among the top 35% of companies evaluated worldwide, reflecting our strong commitment to environmental, social, and ethical performance

F120 Enhanced Fire Resistant Mains Cable 1kV - BS7846, BS8491, MGT, XLPE, SWA, LSZH - 25mm² to 400mm² - Dimensions

Reference	Conductor Size (mm2)	No Of Cores	Stranding(mm)	Overall Diameter(mm)	Weight(Kg/Km)	Helios	Gland Size	Solace	Thermis
FPE2X25	25	2	7/2.14	29	1640	FPC2732	32	1BC2732HT	NONE
FPE3X25	25	3	7/2.14	31.1	2070	FPC2732	32	1BC2732HT	NONE
FPE4X25	25	4	7/2.14	33.4	2410	FPC3238	40	1BC3238HT	NONE
FPE5X25	25	5	7/2.14	35.7	2810	FPC3238	40	1BC3238HT	NONE
FPE2X35	35	2	7/2.52	31.9	2130	FPC2732	32	1BC2732HT	NONE
FPE3X35	35	3	7/2.52	33.5	2480	FPC3238	40	1BC3238HT	NONE
FPE4X35	35	4	7/2.52	36.1	2920	FPC3238	40	1BC3238HT	NONE
FPE5X35	35	5	7/2.52	39.5	3170	FPC3238	40	1BC3238HT	NONE
FPE2X50	50	2	19/1.78	29.9	2030	FPC2732	32	1BC2732HT	NONE
FPE3X50	50	3	19/1.78	33.2	2630	FPC3238	40	1BC3238HT	NONE
FPE4X50	50	4	19/1.78	37.1	3280	FPC3238	40	1BC3238HT	NONE
FPE5X50	50	5	19/1.78	41.8	3850	FPC3238	40	1BC3238HT	NONE
FPE2X70	70	2	19/2.14	33.3	2580	FPC3238	40	1BC3238HT	NONE
FPE3X70	70	3	19/2.14	37	3400	FPC3238	40	1BC3238HT	NONE
FPE4X70	70	4	19/2.14	45.5	4570	FPC3846	50	1BC4551HT	2BC038048HT
FPE5X70	70	5	19/2.14	49.5	5670	FPC3846	50	1BC4551HT	2BC038048HT
FPE2X95	95	2	19/2.52	37.2	3440	FPC3238	50	1BC3238HT	NONE
FPE3X95	95	3	19/2.52	41.2	4550	FPC3846	50S	1BC3845HT	2BC038048HT
FPE4X95	95	4	19/2.52	46.4	5720	FPC4651	50	1BC4551HT	2BC038048HT
FPE5X95	95	5	19/2.52	52.4	6950	FPC5157	50	1BC5158HT	2BC048058HT
FPE2X120	120	2	37/2.03	39.9	4050	FPC3846	50S	1BC3845HT	2BC038048HT
FPE3X120	120	3	37/2.03	44.4	5410	FPC3846	50S	1BC3845HT	2BC038048HT
FPE4X120	120	4	37/2.03	51.2	7270	FPC5157	50	1BC5158HT	2BC048058HT
FPE2X150	150	2	37/2.25	43.1	4740	FPC3846	50S	1BC3845HT	2BC038048HT
FPE3X150	150	3	37/2.25	49.3	6800	FPC4651	50	1BC4551HT	2BC048058HT
FPE4X150	150	4	37/2.25	55.7	8580	FPC5157	63S	1BC5158HT	2BC048058HT
FPE2X185	185	2	37/2.52	48.1	6050	FPC4651	50	1BC4551HT	2BC048058HT
FPE3X185	185	3	37/2.52	53.7	8140	FPC5157	63S	1BC5158HT	2BC048058HT
FPE4X185	185	4	37/2.52	60.8	10300	FPC5765	63	1BC5865HT	2BC058070HT
FPE2X240	240	2	61/2.25	52.4	7390	FPC5157	50	1BC5158HT	2BC048058HT
FPE3X240	240	3	61/2.25	58.8	10040	FPC5765	63	1BC5865HT	2BC058070HT
FPE4X240	240	4	61/2.25	66.5	12800	NONE	75S	1BC6571HT	2BC058070HT
FPE2X300	300	2	61/2.52	56.5	8760	FPC5157	63S	1BC5158HT	2BC048058HT
FPE3X300	300	3	61/2.52	63.5	12020	FPC5765	63	1BC5865HT	2BC058070HT
FPE4X300	300	4	61/2.52	72.1	15410	NONE	75	NONE	2BC070083HT
FPE3X400	400	3	61/2.85	70.1	14820	NONE	75S	1BC6571HT	2BC070083HT
FPE4X400	400	4	61/2.85	81.3	19910	NONE	90	NONE	2BC070083HT

Multicore armoured 90 °C thermosetting insulated cables. Reproduced from *BS7671:2018 Wiring Regulations*

TABLE 4E4A

CURRENT-CARRYING CAPACITY (amps)

Ambient temperature: 30°C
Ground ambient temperature: 20°C
Conductor operating temperature: 90°C

Conductor cross- sectional area	Reference Method C (clipped direct)		Reference Method E (in free air or on a perforated cable tray etc, horizontal or vertical)		Reference Method D (direct in ground or in ducting in ground, in or around buildings)	
	1 two-core cable single-phase AC or DC	1 three- or 1 four- core cable, three- phase AC	1 two-core cable single-phase AC or DC	1 three- or 1 four- core cable, three- phase AC	1 two-core cable single-phase AC or DC	1 three- or 1 four- core cable, three- phase AC
mm2	(A)	(A)	(A)	(A)	(A)	(A)
1.5	27	23	29	25	25	21
2.5	36	31	39	33	33	28
4	49	42	52	44	43	36
6	62	53	66	56	53	44
10	85	73	90	78	71	58
16	110	94	115	99	91	75
25	146	124	152	131	116	96
35	180	154	188	162	139	115
50	219	187	228	197	164	135
70	279	238	291	251	203	167
95	338	289	354	304	239	197
120	392	335	410	353	271	223
150	451	386	472	406	306	251
185	515	441	539	463	343	281
240	607	520	636	546	395	324
300	698	599	732	628	446	365
400	787	673	847	728		

1.Where it is intended to connect the cables in this table to equipment or accessories designed to operate at a temperature lower than the maximum operating temperature of the cable, the cables should be rated at the maximum operating temperature of the equipment or accessory (see Regulation 512.1.5).
2.Where it is intended to group a cable in this tablewith other cables, the cable should be rated at the lowest of the maximum operating temperatures of any of the cables in the group (see Regulation 512.1.5).

TABLE 4E4B

VOLTAGE DROP (per ampere per metre)

Conductor operating temperature:90°C

Conductor cross sectional area	Two-core cable DC	Two-core cable, single-phase AC			Three- or four-core cable, three-phase AC		
(mm2)	(mV/Nm)	(mV/Nm)			(mV/Nm)		
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			4.0		
16	2.9	2.9			2.5		
		R	X	Z	R	X	Z
25	1.85	1.85	0.160	1.90	1.60	0.140	1.65
35	1.35	1.35	0.155	1.35	1.15	0.135	1.15
50	0.98	0.99	0.155	1.00	0.86	0.135	0.87
70	0.67	0.67	0.150	0.69	0.59	0.130	0.60
95	0.49	0.50	0.150	0.52	0.43	0.130	0.45
120	0.39	0.40	0.145	0.42	0.34	0.130	0.37
150	0.31	0.32	0.145	0.35	0.28	0.125	0.30
185	0.25	0.26	0.145	0.29	0.22	0.125	0.26
240	0.195	0.20	0.140	0.24	0.175	0.125	0.21
300	0.155	0.16	0.140	0.21	0.140	0.120	0.185
400	0.120	0.13	0.140	0.190	0.115	0.120	0.165

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