F120 Enhanced Fire Resistant Mains Cable 1kV - BS7846, BS8491, MGT, XLPE, SWA, LSZH - 4mm² to 16mm²

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 60332-1-2

Flame Retardancy
In accordance with IEC 60332-3-24 Cat C

Temperature Limits
Maximum operating temp: 90°C
Initial temperature at S.C.C for screen: 80°C
Maximum temp during short circuit: 250°C

Core Colours

2 core - Brown, Blue

3 core - Brown, Black, Grey

4 core - Brown, Black, Grey, Blue

5 core - Brown, Black, Grey, Blue, Green, Yellow

Sheath Colour Black

Standards

- BS EN / IEC 60332-3-24 (cat C)
- BS EN/IEC 60332-1-2
- BS EN/IEC 60228
- Fire resistant to BS7846 F120
- LPCB Certified, BS6387 Cat CWZ

Construction

- **Conductor**: Class 2 stranded copper conductor
- **Fire Protection**: MICA Glass Fibre Tape
- **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 - 4mm² to 16mm² - Dimensions

Reference	Conductor Size (mm2)	No Of Cores	Stranding(mm)	Overall Diameter(mm)	Weight(Kg/Km)	Helios	Gland Size	Solace
FPE2X4	4	2	7/0.85	21.8	871	FPC1923	25	1BC1923HT
FPE3X4	4	3	7/0.85	22.7	966	FPC1923	25	1BC1923HT
FPE4X4	4	4	7/0.85	24	959	FPC2327	25	1BC2327HT
FPE5X4	4	5	7/0.85	25.6	1040	FPC2327	25	1BC2327HT
FPE2X6	6	2	7/1.04	23	1001	FPC1923	25	1BC1923HT
FPE3X6	6	3	7/1.04	23.8	1087	FPC2327	25	1BC2327HT
FPE4X6	6	4	7/1.04	25.2	1252	FPC2327	25	1BC2327HT
FPE5X6	6	5	7/1.04	25.9	1410	FPC2327	25	1BC2327HT
FPE2X10	10	2	7/1.35	23.8	1060	FPC2327	20	1BC2327HT
FPE3X10	10	3	7/1.35	24.8	1180	FPC2732	25	1BC2732HT
FPE4X10	10	4	7/1.35	27.4	1350	FPC2327	25	1BC2327HT
FPE5X10	10	5	7/1.35	30.3	1590	FPC2327	25	1BC2327HT
FPE2X16	16	2	7/1.7	25.9	1290	FPC2327	25	1BC2327HT
FPE3X16	16	3	7/1.7	27.1	1460	FPC2732	32	1BC2732HT
FPE4X16	16	4	7/1.7	29.98	1690	FPC2732	32	1BC2732HT
FPE5X16	16	5	7/1.7	30.2	1920	FPC2732	32	1BC2732HT

Multicore 90°C thermosetting insulated and thermoplastic sheathed cables, non-armoured (COPPER CONDUCTORS) Reproduced from *BS7671:2018 Wiring Regulation*

TABLE 4E2A

CURRENT-CARRYING CAPACITY (amperes)

Ambient temperature: 30°C
Conductor operating temperature:90°C

Conductor cross sectional area	Reference Method A (enclosed in conduit in thermally insulating wall etc.)		Reference Method B (enclosed in conduit on a wall or in trunking etc.)		Reference Method C (clipped direct)		Reference Method E (free air or on a perforated cable tray etc, horizontal or vertical)	
	1 two-core cable*, single-phase AC or DC	1 three- or four-core cable*, three-phase AC	1 two-core cable*, single-phase AC or DC	1 three- or four-core cable*, three-phase AC	1 two-core cable*, single-phase AC or DC	1 three- or four-core cable*, three-phase AC	1 two-core cable*, single-phase AC or DC	1 three- or four-core cable*, three-phase AC
(mm2)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)
1	14.5	13	17	15	19	17	21	18
1.5	18.5	16.5	22	19.5	24	22	26	23
2.5	25	22	30	26	33	30	36	32
4	33	30	40	35	45	40	49	42
6	42	38	51	44	58	52	63	54
10	57	51	69	60	80	71	86	75
16	76	68	91	80	107	96	115	100
25	99	89	119	105	138	119	149	127
35	121	109	146	128	171	147	185	158
50	145	130	175	154	209	179	225	192
70	183	164	221	194	269	229	289	246
95	220	197	265	233	328	278	352	298
120	253	227	305	268	382	322	410	346
150	290	259	334	300	441	371	473	399
185	329	295	384	340	506	424	542	456
240	386	346	459	398	599	500	641	538
300	442	396	532	455	693	576	741	621
400	-	-	625	536	803	667	865	741

* with or without a protective conductor

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 table with 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).
3. For cables having flexible conductors see section 2.4 of this appendix for adjustment factors for current-carrying capacity and voltage drop.

Multicore 90°C thermosetting insulated and thermoplastic sheathed cables, non-armoured (COPPER CONDUCTORS) Reproduced from *BS7671:2018 Wiring Regulations*

TABLE 4E2B

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/A/m)	(mV/A/m)			(mV/A/m)		
1	46	46			40		
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	0.160	0.140	1.65
35	1.35	1.35	0.151	1.35	1.15	0.135	1.15
50	0.98	0.99	0.155	1.00	0.86	0.1351	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	0.200	0.140	0.24	0.175	0.125	0.21
300	0.155	0.160	0.140	0.21	0.140	0.120	0.185
400	0.120	0.130	0.140	0.115	0.115	0.120	0.165