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

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
- **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)

Training & Testing Lab

AN ISO/IEC 17025 ACCREDITED FACILITY

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.

ISO/IEC 17025 Accredited Testing Laboratory
UKAS TESTING 31196

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.

CLEVELAND CABLE COMPANY

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

ecovadis

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 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

THE INFORMATION CONTAINED WITHIN THIS DATASHEET IS FOR GUIDANCE ONLY AND IS SUBJECT TO CHANGE WITHOUT NOTICE OR LIABILITY. WE BELIEVE THE INFORMATION IS CORRECT AT THE TIME OF PUBLICATION. PLEASE NOTE WHEN SELECTING CABLE ACCESSORIES THAT ACTUAL CABLE DIMENSIONS MAY VARY DUE TO MANUFACTURING TOLERANCES.