F2 Fire Resistant Mains Cable 1kV - BS7846, BS6387, MGT, XLPE, SWA,LSZH - 25mm² to 400mm²



Description

Fireproof Mains Cable available in sizes 25mm to 400mm and manufactured to British Standard BS7846 F2 / BS6387 & CWZ. The cable features plain annealed stranded copper conductor, mica fire resistant tape,thermosetting XLPE insulated, low smoke & zero halogen (LSZH) bedding, galvanised steel wire armour, low smoke & zero halogen (LSZH) outer sheath. Fire resistant to BS7846 F2 / BS6387 & CWZ. Acid gas emission to BS EN 50267 (IEC60754), smoke emission to BS EN 50268 (IEC 61034) and flame propagation to BS EN 50265, BS EN 50266 (IEC 60332-3). Suitable for fixed installations such as power circuits, fire alarm systems and emergency lighting.

Key Features

Voltage Rating
600/1000 Volts

Minimum Bending Radius
Flexing: 8 x overall diameter

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

Temperature Limits
Fixed -20°C to +90°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

Standards

- IEC 60332-3-24
- BS EN/IEC 60332-1-2
- BS EN/IEC 61034-2
- BS EN/IEC 60228
- Fire resistant to BS7846 F2
- BS EN/IEC 60754-1
- BS6387 Cat CWZ

Construction

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

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
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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

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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

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F2 Fire Resistant Mains Cable 1kV - BS7846, BS6387, 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	Themis
FP2X25	25	2	7/2.14	21.4	1100	FPC1923	25	1BC1923HT	NONE
FP3X25	25	3	7/2.14	26.6	1800	FPC2327	32	1BC2327HT	NONE
FP4X25	25	4	7/2.14	28.8	2150	FPC2732	32	1BC2732HT	NONE
FP5X25	25	5	7/2.14	32	2700	FPC2732	32	1BC2732HT	NONE
FP2X35	35	2	7/2.52	24.3	1550	FPC2327	25	1BC2327HT	NONE
FP3X35	35	3	7/2.52	29.1	2200	FPC2732	32	1BC2732HT	NONE
FP4X35	35	4	7/2.52	31.6	2650	FPC2732	32	1BC2732HT	NONE
FP5X35	35	5	NONE	NONE	NONE	NONE	NONE	1BC6571HT	2BC070083HT
FP4X50	50	4	19/1.78	33.2	3100	FPC3238	40	1BC3238HT	NONE
FP4X70	70	4	19/2.14	38.9	4400	FPC3846	40	1BC3845HT	2BC038048HT
FP2X120	120	2	37/2.03	37.1	3900	FPC3238	40	1BC3238HT	NONE
FP2X150	150	2	37/2.25	40.3	4650	FPC3846	50S	1BC3845HT	2BC038048HT
FP2X185	185	2	37/2.52	45.7	5950	FPC3846	50	1BC4551HT	2BC038048HT
FP2X240	240	2	61/2.25	50	7350	FPC4651	50	1BC4551HT	2BC048058HT
FP2X300	300	2	61/2.52	54.5	8700	FPC5157	63S	1BC5158HT	2BC048058HT

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.

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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

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