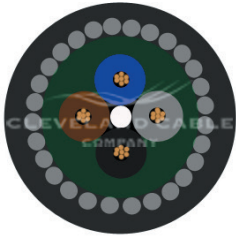




## F120 ENHANCED FIRE RESISTANT MAINS CABLE



### APPLICATION

Fireproof mains cable is suitable for fixed installations such as power circuits, fire alarm systems and emergency lighting. It has been 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.

### CABLE STANDARDS

Conforms to BS7846/ BS8491  
 Conforms to BS 6387, BS EN 50267, BS EN 50268  
 Circuit integrity: BS8519-2020 120 minutes  
 Acid gas emission to IEC 60754  
 Flame propagation to BS EN 50265,  
 BS EN 50266 (IEC 60332-3).  
 Smoke emission to IEC 61034  
 LPCB Approved

### CONSTRUCTION

**Conductor:** Plain Annealed Stranded Copper Conductor

**Separator:** MICA/Glass Fire Barrier Tape

**Insulation:** Cross Link Polyethylene (XLPE)

**Bedding:** Low Smoke and Zero Halogen (LSZH)

**Armouring:** Galvanised Steel Wire Armour

**Sheath:** Low Smoke and Zero Halogen (LSZH)

**Sheath Colour:** **Black**

### CHARACTERISTICS

**Voltage Rating:** 600/1000 Volts

**Temperature Limits:** -10°C to +90°C

**Minimum Bending Radius:** As per cable manufacturer datasheet

### CORE IDENTIFICATION

2 Core: **Brown** **Blue**

3 Core: **Brown** **Black** Grey

4 Core: **Brown** **Black** Grey **Blue**

5 Core: **Brown** **Black** Grey **Blue** **Green/Yellow**

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## F120 ENHANCED FIRE RESISTANT MAINS CABLE - DIMENSIONS

| CCC CODE | CONDUCTOR SIZE (MM <sup>2</sup> ) | STRANDING (MM) | NUMBER OF CORES | WEIGHT (KG/KM) | APPROX OUTSIDE DIAMETER (MM) | GLAND SIZE (MM) | CMP FIRE RATED CLEAT OPTIONS |           | THEMIS CLEAT |
|----------|-----------------------------------|----------------|-----------------|----------------|------------------------------|-----------------|------------------------------|-----------|--------------|
|          |                                   |                |                 |                |                              |                 | HELIOS                       | SOLACE    |              |
| FPE2X4   | 4                                 | 7/0.85         | 2               | 871            | 21.80                        | 25              | FPC1923                      | 1BC1923HT | -            |
| FPE3X4   | 4                                 | 7/0.85         | 3               | 966            | 22.70                        | 25              | FPC1923                      | 1BC1923HT | -            |
| FPE4X4   | 4                                 | 7/0.85         | 4               | 959            | 24.00                        | 25              | FPC2327                      | 1BC2327HT | -            |
| FPE5X4   | 4                                 | 7/0.85         | 5               | 1040           | 25.6                         | 25              | FPC2327                      | 1BC2327HT | -            |
| FPE2X6   | 6                                 | 7/1.04         | 2               | 1001           | 23.00                        | 25              | FPC1923                      | 1BC1923HT | -            |
| FPE3X6   | 6                                 | 7/1.04         | 3               | 1087           | 23.80                        | 25              | FPC2327                      | 1BC2327HT | -            |
| FPE4X6   | 6                                 | 7/1.04         | 4               | 1252           | 25.20                        | 25              | FPC2327                      | 1BC2327HT | -            |
| FPE5X6   | 6                                 | 7/1.04         | 5               | 1410           | 25.90                        | 25              | FPC2327                      | 1BC2327HT | -            |
| FPE2X10  | 10                                | 7/1.35         | 2               | 1060           | 23.80                        | 20              | FPC2327                      | 1BC2327HT | -            |
| FPE3X10  | 10                                | 7/1.35         | 3               | 1180           | 24.80                        | 25              | FPC2327                      | 1BC2327HT | -            |
| FPE4X10  | 10                                | 7/1.35         | 4               | 1350           | 26.00                        | 25              | FPC2732                      | 1BC2732HT | -            |
| FPE5X10  | 10                                | 7/1.35         | 5               | 1590           | 27.40                        | 32              | FPC2732                      | 1BC2732HT | -            |
| FPE2X16  | 16                                | 7/1.7          | 2               | 1290           | 25.90                        | 25              | FPC2327                      | 1BC2327HT | -            |
| FPE3X16  | 16                                | 7/1.7          | 3               | 1460           | 27.10                        | 32              | FPC2732                      | 1BC2732HT | -            |
| FPE4X16  | 16                                | 7/1.7          | 4               | 1690           | 28.98                        | 32              | FPC2732                      | 1BC2732HT | -            |
| FPE5X16  | 16                                | 7/1.7          | 5               | 1920           | 30.20                        | 32              | FPC2732                      | 1BC2732HT | -            |
| FPE2X25  | 25                                | 7/2.14         | 2               | 1640           | 29.00                        | 32              | FPC2732                      | 1BC2732HT | -            |
| FPE3X25  | 25                                | 7/2.14         | 3               | 2070           | 31.10                        | 32              | FPC2732                      | 1BC2732HT | -            |
| FPE4X25  | 25                                | 7/2.14         | 4               | 2410           | 33.40                        | 40              | FPC3238                      | 1BC3238HT | -            |
| FPE5X25  | 25                                | 7/2.14         | 5               | 2810           | 35.70                        | 40              | FPC3238                      | 1BC3238HT | -            |
| FPE2X35  | 35                                | 7/2.52         | 2               | 2130           | 31.90                        | 32              | FPC2732                      | 1BC2732HT | -            |
| FPE3X35  | 35                                | 7/2.52         | 3               | 2480           | 33.50                        | 40              | FPC3238                      | 1BC3238HT | -            |
| FPE4X35  | 35                                | 7/2.52         | 4               | 2920           | 36.10                        | 40              | FPC3238                      | 1BC3238HT | -            |
| FPE5X35  | 35                                | 7/2.52         | 5               | 3170           | 39.50                        | 40              | FPC3238                      | 1BC3238HT | -            |
| FPE2X50  | 50                                | 19/1.78        | 2               | 2030           | 29.90                        | 32              | FPC2732                      | 1BC2732HT | -            |
| FPE3X50  | 50                                | 19/1.78        | 3               | 2630           | 33.20                        | 40              | FPC3238                      | 1BC3238HT | -            |
| FPE4X50  | 50                                | 19/1.78        | 4               | 3280           | 37.10                        | 40              | FPC3238                      | 1BC3238HT | -            |
| FPE5X50  | 50                                | 19/1.78        | 5               | 3850           | 41.80                        | 40              | FPC3238                      | 1BC3238HT | -            |
| FPE2X70  | 70                                | 19/2.14        | 2               | 2580           | 33.30                        | 40              | FPC3238                      | 1BC3238HT | -            |
| FPE3X70  | 70                                | 19/2.14        | 3               | 3400           | 37.00                        | 40              | FPC3238                      | 1BC3238HT | -            |
| FPE4X70  | 70                                | 19/2.14        | 4               | 4570           | 45.50                        | 50              | FPC3846                      | 1BC4551HT | 2BC038048HT  |
| FPE5X70  | 70                                | 19/2.14        | 5               | 5670           | 49.50                        | 50              | FPC3846                      | 1BC4551HT | 2BC038048HT  |
| FPE2X95  | 95                                | 19/2.52        | 2               | 3440           | 37.20                        | 40              | FPC3238                      | 1BC3238HT | -            |
| FPE3X95  | 95                                | 19/2.52        | 3               | 4550           | 41.20                        | 50S             | FPC3846                      | 1BC3845HT | 2BC038048HT  |
| FPE4X95  | 95                                | 19/2.52        | 4               | 5720           | 46.40                        | 50              | FPC4651                      | 1BC4551HT | 2BC038048HT  |
| FPE2X120 | 120                               | 37/2.03        | 2               | 4050           | 39.90                        | 50S             | FPC3846                      | 1BC3845HT | 2BC038048HT  |
| FPE3X120 | 120                               | 37/2.03        | 3               | 5410           | 44.40                        | 50S             | FPC3846                      | 1BC3845HT | 2BC038048HT  |
| FPE4X120 | 120                               | 37/2.03        | 4               | 7270           | 51.20                        | 50              | FPC5157                      | 1BC5158HT | 2BC048058HT  |
| FPE2X150 | 150                               | 37/2.25        | 2               | 4740           | 43.10                        | 50S             | FPC3846                      | 1BC3845HT | 2BC038048HT  |
| FPE3X150 | 150                               | 37/2.25        | 3               | 6800           | 49.30                        | 50              | FPC4651                      | 1BC4551HT | 2BC048058HT  |
| FPE4X150 | 150                               | 37/2.25        | 4               | 8580           | 55.70                        | 63S             | FPC5157                      | 1BC5158HT | 2BC048058HT  |
| FPE2X185 | 185                               | 37/2.52        | 2               | 6050           | 48.10                        | 50              | FPC4651                      | 1BC4551HT | 2BC048058HT  |
| FPE3X185 | 185                               | 37/2.52        | 3               | 8140           | 53.70                        | 63S             | FPC5157                      | 1BC5158HT | 2BC048058HT  |
| FPE4X185 | 185                               | 37/2.52        | 4               | 10300          | 60.80                        | 63              | FPC5765                      | 1BC5865HT | 2BC058070HT  |
| FPE2X240 | 240                               | 61/2.25        | 2               | 7390           | 52.40                        | 50              | FPC5157                      | 1BC5158HT | 2BC048058HT  |
| FPE3X240 | 240                               | 61/2.25        | 3               | 10040          | 58.80                        | 63              | FPC5765                      | 1BC5865HT | 2BC058070HT  |
| FPE4X240 | 240                               | 61/2.25        | 4               | 12800          | 66.50                        | 75S             | -                            | 1BC6571HT | 2BC058070HT  |
| FPE2X300 | 300                               | 61/2.52        | 2               | 8760           | 56.50                        | 63S             | FPC5157                      | 1BC5158HT | 2BC048058HT  |
| FPE3X300 | 300                               | 61/2.52        | 3               | 12020          | 63.50                        | 63              | FPC5765                      | 1BC5865HT | 2BC058070HT  |
| FPE4X300 | 300                               | 61/2.52        | 4               | 15410          | 72.10                        | 75              | -                            | -         | 2BC070083HT  |
| FPE3X400 | 400                               | 61/2.85        | 3               | 14820          | 70.10                        | 75S             | -                            | 1BC6571HT | 2BC070083HT  |
| FPE4X400 | 400                               | 61/2.85        | 4               | 19910          | 81.30                        | 90              | -                            | -         | 2BC070083HT  |

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## F120 ENHANCED FIRE RESISTANT MAINS CABLE-CARRYING CAPACITY (AMPS)

| NOMINAL CROSS SECTIONAL AREA (MM <sup>2</sup> ) | 2 CORE           |              |             | 3 AND 4 CORE     |              |             |
|-------------------------------------------------|------------------|--------------|-------------|------------------|--------------|-------------|
|                                                 | SINGLE PHASE     |              |             | THREE PHASE      |              |             |
|                                                 | LAID DIRECT AMPS | IN DUCT AMPS | IN AIR AMPS | LAID DIRECT AMPS | IN DUCT AMPS | IN AIR AMPS |
| 4                                               | 49               | 43           | 52          | 42               | 36           | 44          |
| 6                                               | 62               | 53           | 66          | 53               | 44           | 56          |
| 10                                              | 85               | 71           | 90          | 73               | 58           | 78          |
| 16                                              | 110              | 91           | 115         | 94               | 75           | 99          |
| 25                                              | 146              | 116          | 152         | 124              | 96           | 131         |
| 35                                              | 180              | 139          | 188         | 154              | 115          | 162         |
| 50                                              | 219              | 164          | 288         | 187              | 135          | 197         |
| 70                                              | 279              | 203          | 291         | 238              | 167          | 251         |
| 95                                              | 338              | 239          | 354         | 289              | 197          | 304         |
| 120                                             | 392              | 271          | 410         | 335              | 223          | 353         |
| 150                                             | 451              | 306          | 472         | 386              | 251          | 406         |
| 185                                             | 515              | 343          | 539         | 441              | 281          | 463         |
| 240                                             | 607              | 395          | 636         | 520              | 324          | 546         |
| 300                                             | 698              | 446          | 732         | 599              | 365          | 628         |
| 400                                             | 787              | 498          | 847         | 673              | 420          | 728         |

## F120 ENHANCED FIRE RESISTANT MAINS CABLE-VOLTAGE DROP

| NOMINAL CROSS SECTIONAL AREA MM <sup>2</sup> | 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                 |

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