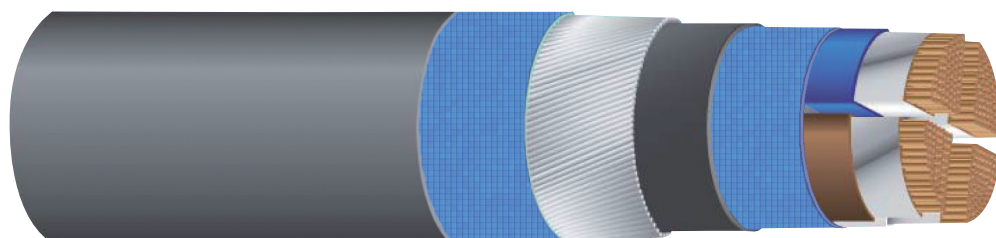




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# FP600S

ULTIMATE PROTECTION FOR ELECTRICAL EMERGENCY SYSTEMS



Certificate No 077n  
 Certificate No 517c/01



## CABLE DESCRIPTION

### Conductor

Plain annealed copper stranded circular (4-35 mm<sup>2</sup>) or shaped (50-400 mm<sup>2</sup>) conductor complying with BS EN 60228 Class 2.

### Insulation

Mineral ceramic (Mica/Glass) fire resistant tape. 90°C cross - linked insulation.

### Bedding

Thermoplastic LSOH bedding compound to retain orientation of the cores and support the galvanised steel wire armour layer.

### Armour

Single layer of galvanised steel wires.

### Sheath

Robust thermoplastic LSOH sheath. Colour - black. Other colours to special order for minimum quantity.

### Key Applications

FP600S is the ultimate fire resistant armoured cable suitable for use in essential emergency systems to retain circuit integrity in the event of fire. Power and control for all life safety and fire fighting systems.

- > Smoke barriers, control dampers, smoke curtains
- > Smoke and heat exhaust ventilation systems
- > Fire fighting and evacuation lift supplies
- > Extinguishing systems - sprinkler pumps, water mist and powder.
- > Wet riser pumps.

### British Standards

- > BS8519 Category 1, 2 and 3 power and control cable
- > BS8491 120 minutes
- > BS7846 F120
- > BASEC and LPCB approved
- > London Underground 1.085 Approved Products Register (Section 12)

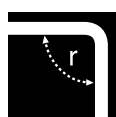
### Core identification

**HARMONISED CORE IDENTIFICATION:**  
 ○ brown-blue  
 ○ brown-black-grey  
 ○ blue-brown-black-grey

**NON HARMONISED CORE IDENTIFICATION:**  
 ○ red-black  
 ○ red-yellow-blue  
 ○ black-red-yellow-blue  
 Non harmonised colours to special order.



**Temperature Range**  
 -25 to +90°C



**Bending Radius**  
 Fixed  
 Circular conductor 6D  
 Shaped conductor 8D



**Mechanical Impact**  
 High



**Flame Propagation**  
 BS EN 60332-1-2  
 BS EN 60332-3-24



**Flexibility**  
 Rigid



**Halogen Free**  
 BS EN 50267-2-1



**Low Smoke Emissions**  
 BS EN 61034-2



**Fire Resistance**  
 BS 7846 F120  
 BS 8491 120 min

Correction factors for Ambient temperatures

See BS7671, table 4B1 - Rating factors (Ca) for ambient air temperatures other than 30°C

Correction factors for grouping of cables

See BS7671, table 4C1 - Rating factors for one circuit or one multicore cable or for a group of circuits, or a group of multicore cables.

See BS7671, table 4C4 - Rating factors for groups of more than one multicore cable, to be applied to reference current-carrying capacities for multicore cables in free air.

| Nominal cross sectional area | Approximate overall diameter | Approximate diameter under armour | Nominal diameter of armour wires | Approximate cable weight | Maximum conductor resistance at 20°C | Short circuit rating (1sec) of conductor | Current rating Three phase AC clipped direct | Current rating Three phase AC Free air or perforated tray | Volt drop Three phase AC | Recommended accessories |                     |
|------------------------------|------------------------------|-----------------------------------|----------------------------------|--------------------------|--------------------------------------|------------------------------------------|----------------------------------------------|-----------------------------------------------------------|--------------------------|-------------------------|---------------------|
| mm²                          | mm                           | mm                                | mm                               | kg/km                    | ohms/km                              | kA                                       | Amps                                         | Amps                                                      | mV/A/m                   | Claw Cleat Ref No.      | Brass Gland Ref No. |
| Three Core                   |                              |                                   |                                  |                          |                                      |                                          |                                              |                                                           |                          |                         |                     |
| 4                            | 21                           | 15                                | 1.25                             | 800                      | 4.61                                 | 0.57                                     | 42                                           | 44                                                        | 10                       | 370CG04                 | LSF25CW             |
| 6                            | 21                           | 15                                | 1.25                             | 820                      | 3.08                                 | 0.86                                     | 53                                           | 56                                                        | 6.8                      | 370CG04                 | LSF25CW             |
| 10                           | 23                           | 17                                | 1.25                             | 1050                     | 1.83                                 | 1.4                                      | 73                                           | 78                                                        | 4.0                      | 370CG05                 | LSF25CW             |
| 16                           | 24                           | 19                                | 1.25                             | 1400                     | 1.15                                 | 2.2                                      | 94                                           | 99                                                        | 2.5                      | 370CG05                 | LSF25CW             |
| 25                           | 29                           | 22                                | 1.6                              | 2000                     | 0.727                                | 3.6                                      | 124                                          | 131                                                       | 1.65                     | 370CG06                 | LSF32CW             |
| 35                           | 31                           | 24                                | 1.6                              | 2300                     | 0.524                                | 5.0                                      | 154                                          | 162                                                       | 1.15                     | 370CG06                 | LSF32CW             |
| 50                           | 32                           | 25                                | 1.6                              | 2800                     | 0.387                                | 7.1                                      | 187                                          | 197                                                       | 0.87                     | 370CG07                 | LSF32CW             |
| 70                           | 36                           | 29                                | 1.6                              | 3600                     | 0.268                                | 10                                       | 238                                          | 251                                                       | 0.6                      | 370CG07                 | LSF40CW             |
| 95                           | 40                           | 32                                | 2.0                              | 4500                     | 0.193                                | 13.6                                     | 289                                          | 304                                                       | 0.45                     | 370CG08                 | LSF50SCW            |
| 120                          | 43                           | 35                                | 2.0                              | 5400                     | 0.153                                | 17.2                                     | 335                                          | 353                                                       | 0.37                     | 370CG08                 | LSF50SCW            |
| 150                          | 48                           | 39                                | 2.5                              | 6900                     | 0.124                                | 21.4                                     | 386                                          | 406                                                       | 0.30                     | 370CG09                 | LSF50CW             |
| 185                          | 52                           | 43                                | 2.5                              | 8200                     | 0.0991                               | 26.5                                     | 441                                          | 463                                                       | 0.26                     | 370CG09                 | LSF63CW             |
| 240                          | 57                           | 47                                | 2.5                              | 10100                    | 0.0754                               | 34.3                                     | 520                                          | 456                                                       | 0.21                     | 370CG10                 | LSF63CW             |
| 300                          | 62                           | 52                                | 2.5                              | 12200                    | 0.0601                               | 42.9                                     | 599                                          | 628                                                       | 0.185                    | 370CG12                 | LSF63CW             |
| 400                          | 69                           | 58                                | 2.5                              | 15000                    | 0.0470                               | 57.2                                     | 673                                          | 728                                                       | 0.165                    | 370CG13                 | LSF75CW             |
| Four Core                    |                              |                                   |                                  |                          |                                      |                                          |                                              |                                                           |                          |                         |                     |
| 4                            | 21                           | 15                                | 1.25                             | 800                      | 4.61                                 | 0.57                                     | 42                                           | 44                                                        | 10                       | 370CG04                 | LSF25CW             |
| 6                            | 23                           | 17                                | 1.25                             | 950                      | 3.08                                 | 0.86                                     | 53                                           | 56                                                        | 6.8                      | 370CG05                 | LSF25CW             |
| 10                           | 24                           | 19                                | 1.25                             | 1200                     | 1.83                                 | 1.4                                      | 73                                           | 78                                                        | 4.0                      | 370CG05                 | LSF25CW             |
| 16                           | 27                           | 20                                | 1.25                             | 1600                     | 1.15                                 | 2.2                                      | 94                                           | 99                                                        | 2.5                      | 370CG06                 |                     |
| 25                           | 32                           | 24                                | 1.6                              | 2400                     | 0.727                                | 3.6                                      | 124                                          | 131                                                       | 1.65                     | 370CG07                 | LSF32CW             |
| 35                           | 35                           | 27                                | 1.6                              | 2800                     | 0.524                                | 5.0                                      | 154                                          | 162                                                       | 1.15                     | 370CG07                 | LSF40CW             |
| 50                           | 36                           | 29                                | 1.6                              | 3200                     | 0.387                                | 7.1                                      | 187                                          | 197                                                       | 0.87                     | 370CG07                 | LSF40CW             |
| 70                           | 41                           | 32                                | 2.0                              | 4500                     | 0.268                                | 10                                       | 238                                          | 251                                                       | 0.64                     | 370CG08                 | LSF50SCW            |
| 95                           | 44                           | 36                                | 2.0                              | 5700                     | 0.193                                | 13.6                                     | 289                                          | 304                                                       | 0.45                     | 370CG08                 | LSF50SCW            |
| 120                          | 49                           | 40                                | 2.5                              | 7300                     | 0.153                                | 17.2                                     | 335                                          | 353                                                       | 0.37                     | 370CG09                 | LSF50CW             |
| 150                          | 55                           | 44                                | 2.5                              | 8600                     | 0.124                                | 21.4                                     | 386                                          | 406                                                       | 0.30                     | 370CG10                 | LSF63CW             |
| 185                          | 59                           | 48                                | 2.5                              | 10500                    | 0.0991                               | 26.5                                     | 441                                          | 463                                                       | 0.26                     | 370CG11                 | LSF63CW             |
| 240                          | 64                           | 54                                | 2.5                              | 12900                    | 0.0754                               | 34.3                                     | 520                                          | 546                                                       | 0.21                     | 370CG12                 | LSF63CW             |
| 300                          | 70                           | 59                                | 2.5                              | 15500                    | 0.0601                               | 42.9                                     | 599                                          | 628                                                       | 0.185                    | 370CG14                 | LSF75CW             |
| 400                          | 79                           | 66                                | 3.15                             | 20100                    | 0.0470                               | 57.2                                     | 673                                          | 728                                                       | 0.165                    | 370CG15                 | LSH85CW             |

Circular conductor 4.0-35mm². Shaped conductor 50mm² and above. Installation methods for current rating in accordance with BS7671/IEE Wiring Regulations. The tabulated ratings are based upon a 30°C ambient temperature and 90°C operating temperature. For other ambient temperatures or where cables are grouped together, the following rating factors should be applied.

| Nominal cross sectional area | Approximate overall diameter | Approximate diameter under armour | Nominal diameter of armour wires | Approximate cable weight | Maximum conductor resistance at 20°C | Current rating DC or single phase AC clipped direct | Current Rating DC or single phase AC Free Air or perforated tray Amps | Voltage drop DC | Volt drop single phase AC | Recommended accessories |                     |
|------------------------------|------------------------------|-----------------------------------|----------------------------------|--------------------------|--------------------------------------|-----------------------------------------------------|-----------------------------------------------------------------------|-----------------|---------------------------|-------------------------|---------------------|
| mm <sup>2</sup>              | mm                           | mm                                | mm                               | kg/km                    | ohms/km                              | Amps                                                | Amps                                                                  | mV/A/m          | mV/A/m                    | Claw Cleat Ref No.      | Brass Gland Ref No. |

#### Two Core

|     |    |    |      |       |        |     |     |       |      |         |          |
|-----|----|----|------|-------|--------|-----|-----|-------|------|---------|----------|
| 4   | 21 | 15 | 1.25 | 800   | 4.61   | 49  | 52  | 12    | 12   | 370CG04 | LSF25CW  |
| 6   | 21 | 15 | 1.25 | 800   | 3.08   | 62  | 66  | 7.9   | 7.9  | 370CG04 | LSF25CW  |
| 10  | 22 | 16 | 1.25 | 800   | 1.83   | 85  | 90  | 4.7   | 4.7  | 370CG05 | LSF25CW  |
| 16  | 23 | 17 | 1.25 | 1000  | 1.15   | 110 | 115 | 2.9   | 2.9  | 370CG05 | LSF25CW  |
| 25  | 26 | 20 | 1.25 | 1300  | 0.727  | 146 | 152 | 1.85  | 1.90 | 370CG06 |          |
| 35  | 30 | 23 | 1.6  | 1800  | 0.524  | 180 | 188 | 1.35  | 1.35 | 370CG06 | LSF32CW  |
| 50  | 31 | 24 | 1.6  | 2200  | 0.387  | 219 | 228 | 0.98  | 1.0  | 370CG06 | LSF32CW  |
| 70  | 33 | 26 | 1.6  | 2600  | 0.268  | 279 | 291 | 0.67  | 0.69 | 370CG07 | LSF32CW  |
| 95  | 35 | 27 | 2.0  | 3400  | 0.193  | 338 | 354 | 0.49  | 0.52 | 370CG07 | LSF40CW  |
| 120 | 39 | 30 | 2.0  | 4100  | 0.153  | 392 | 410 | 0.39  | 0.42 | 370CG08 | LSF50SCW |
| 150 | 42 | 33 | 2.0  | 4700  | 0.124  | 451 | 472 | 0.31  | 0.35 | 370CG08 | LSF50SCW |
| 185 | 46 | 36 | 2.5  | 6100  | 0.0091 | 515 | 539 | 0.25  | 0.29 | 370CG09 | LSF50CW  |
| 240 | 51 | 41 | 2.5  | 7500  | 0.0754 | 607 | 636 | 0.795 | 0.24 | 370CG09 | LSF50CW  |
| 300 | 56 | 45 | 2.5  | 9000  | 0.0601 | 698 | 732 | 0.155 | 0.21 | 370CG10 | LSF63CW  |
| 400 | 61 | 50 | 2.5  | 11000 | 0.0470 | 787 | 847 | 0.120 | 0.19 | 370CG11 | LSF63CW  |

| Nominal cross sectional area | Approximate overall diameter | Approximate diameter under armour | Nominal diameter of armour wires | Approximate cable weight | Maximum conductor resistance at 20°C | Short circuit rating (1sec) of conductor | Current rating Three phase AC clipped direct | Current rating Three phase AC Free air or perforated tray | Volt drop Three phase AC | Recommended accessories |                     |
|------------------------------|------------------------------|-----------------------------------|----------------------------------|--------------------------|--------------------------------------|------------------------------------------|----------------------------------------------|-----------------------------------------------------------|--------------------------|-------------------------|---------------------|
| mm <sup>2</sup>              | mm                           | mm                                | mm                               | kg/km                    | ohms/km                              | kA                                       | Amps                                         | Amps                                                      | mV/A/m                   | Claw Cleat Ref No.      | Brass Gland Ref No. |

#### Five Core

|    |    |    |      |      |       |      |     |     |      |         |         |
|----|----|----|------|------|-------|------|-----|-----|------|---------|---------|
| 4  | 22 | 17 | 1.25 | 900  | 4.61  | 0.57 | 42  | 44  | 10   | 370CG05 | LSF25CW |
| 6  | 24 | 18 | 1.25 | 1070 | 3.08  | 0.86 | 53  | 56  | 6.8  | 370CG05 | LSF25CW |
| 10 | 27 | 21 | 1.25 | 1390 | 1.83  | 1.4  | 73  | 78  | 4.0  | 370CG06 |         |
| 16 | 30 | 23 | 1.6  | 1900 | 1.15  | 2.2  | 94  | 99  | 2.5  | 370CG06 | LSF32CW |
| 25 | 34 | 26 | 1.6  | 2500 | 0.727 | 3.6  | 124 | 131 | 1.65 | 370CG07 | LSF40CW |
| 35 | 37 | 29 | 1.6  | 3100 | 0.524 | 5.0  | 154 | 162 | 1.15 | 370CG07 | LSF40CW |



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