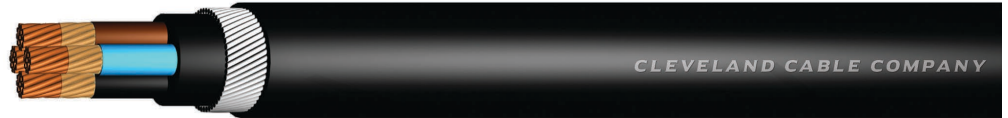
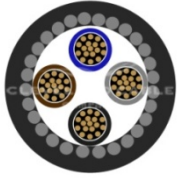


BS7846 FIRE RESISTANT MAINS LSZH CABLE



APPLICATION

The armoured fire resistant cable is suitable for fixed installations such as power circuits, fire alarm systems and emergency lighting.

CABLE STANDARDS

Flame propagation to BS EN 50265, BS EN 50266 (IEC 60332-3).

Fire resistant to BS7846 F2 / BS6387 & CWZ.

Acid gas emission to BS EN 50267 (IEC60754)

Smoke emission to BS EN 50268 (IEC 61034).

BASEC Approved

CONSTRUCTION

Conductor: Plain Annealed Stranded Copper Conductor

Separator: MICA/Glass Fire Barrier Tape

Insulation: Cross Link Polyethylene (XLPE)

Bedding: LSZH

Armouring: Galvanised Steel Wire Armour

Sheath: 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 ■ G/Y

5 core also available in white numbered cores.

Should not be installed at temperatures below 0°C or above +40°C

BS7846 FIRE RESISTANT MAINS LSZH CABLE - DIMENSIONS

| CCC CODE | CONDUCTOR SIZE (MM ²) | STRANDING (MM) | NO. OF CORES | WEIGHT (Kg/Km) | OUTSIDE DIAMETER (MM) | GLAND SIZE (MM) | CMP FIRE RATED CLEAT OPTIONS | | THEMIS CLEAT |
|-------------|-----------------------------------|----------------|--------------|----------------|-----------------------|-----------------|------------------------------|-----------|--------------|
| | | | | | | | HELIOS | SOLACE | |
| 6942F1/5 | 1.5 | 7/0.53 | 2 | 295 | 12.00 | 20/16 | FPC1013 | 1BC1013HT | - |
| 6943F1/5 | 1.5 | 7/0.53 | 3 | 324 | 12.50 | 20/16 | FPC1013 | 1BC1013HT | - |
| 6944F1/5 | 1.5 | 7/0.53 | 4 | 367 | 13.30 | 20S | FPC1316 | 1BC1316HT | - |
| 6947F1/5 | 1.5 | 7/0.53 | 7 | 463 | 15.30 | 20S | FPC1316 | 1BC1316HT | - |
| 6940/12F1/5 | 1.5 | 7/0.53 | 12 | 791 | 20.00 | 25 | FPC1923 | 1BC1923HT | - |
| 6940/19F1/5 | 1.5 | 7/0.53 | 19 | 1030 | 22.90 | 25 | FPC1923 | 1BC1923HT | - |
| 6940/27F1/5 | 1.5 | 7/0.53 | 27 | 1534 | 27.90 | 32 | FPC2732 | 1BC2732HT | - |
| 6940/37F1/5 | 1.5 | 7/0.53 | 37 | 1849 | 30.70 | 32 | FPC2732 | 1BC2732HT | - |
| 6942F2/5 | 2.5 | 7/0.67 | 2 | 352 | 13.10 | 20S | FPC1316 | 1BC1316HT | - |
| 6943F2/5 | 2.5 | 7/0.67 | 3 | 392 | 13.70 | 20S | FPC1316 | 1BC1316HT | - |
| 6944F2/5 | 2.5 | 7/0.67 | 4 | 454 | 14.70 | 20S | FPC1316 | 1BC1316HT | - |
| 6947F2/5 | 2.5 | 7/0.67 | 7 | 584 | 17.00 | 20 | FPC1619 | 1BC1619HT | - |
| 6940/12F2/5 | 2.5 | 7/0.67 | 12 | 1003 | 22.50 | 25 | FPC1923 | 1BC1923HT | - |
| 6940/19F2/5 | 2.5 | 7/0.67 | 19 | 1525 | 27.00 | 32 | FPC2327 | 1BC2327HT | - |
| 6940/27F2/5 | 2.5 | 7/0.67 | 27 | 1990 | 31.60 | 32 | FPC2732 | 1BC2732HT | - |
| 6940/37F2/5 | 2.5 | 7/0.67 | 37 | 2435 | 34.80 | 40 | FPC3238 | 1BC3238HT | - |
| 6942F4 | 4 | 7/0.85 | 2 | 424 | 14.10 | 20S | FPC1316 | 1BC1316HT | - |
| 6943F4 | 4 | 7/0.85 | 3 | 478 | 14.80 | 20S | FPC1316 | 1BC1316HT | - |
| 6944F4 | 4 | 7/0.85 | 4 | 556 | 16.00 | 20 | FPC1316 | 1BC1316HT | - |
| 6945F4 | 4 | 7/0.85 | 5 | 725 | 18.12 | 20 | FPC1619 | 1BC1619HT | - |
| 6947F4 | 4 | 7/0.85 | 7 | 852 | 19.50 | 20 | FPC1923 | 1BC1923HT | - |
| 6942F6 | 6 | 7/1.04 | 2 | 504 | 15.20 | 20 | FPC1316 | 1BC1316HT | - |
| 6943F6 | 6 | 7/1.04 | 3 | 573 | 16.00 | 20 | FPC1316 | 1BC1316HT | - |
| 6944F6 | 6 | 7/1.04 | 4 | 783 | 18.20 | 20 | FPC1619 | 1BC1619HT | - |
| 6945F6 | 6 | 7/1.04 | 5 | 865 | 19.65 | 20 | FPC1923 | 1BC1923HT | - |
| 6942F10 | 10 | 7/1.35 | 2 | 620 | 16.90 | 20 | FPC1619 | 1BC1619HT | - |
| 6943F10 | 10 | 7/1.35 | 3 | 868 | 18.50 | 20 | FPC1619 | 1BC1619HT | - |
| 6944F10 | 10 | 7/1.35 | 4 | 1029 | 20.00 | 25 | FPC1923 | 1BC1923HT | - |
| 6945F10 | 10 | 7/1.35 | 5 | 1222 | 22.64 | 25 | FPC1923 | 1BC1923HT | - |
| 6942F16 | 16 | 7/1.70 | 2 | 954 | 19.50 | 25 | FPC1923 | 1BC1923HT | - |
| 6943F16 | 16 | 7/1.70 | 3 | 1136 | 20.80 | 25 | FPC1923 | 1BC1923HT | - |
| 6944F16 | 16 | 7/1.70 | 4 | 1367 | 22.50 | 25 | FPC1923 | 1BC1923HT | - |
| 6945F16 | 16 | 7/1.70 | 5 | 1812 | 26.55 | 25 | FPC2327 | 1BC2327HT | - |
| FP2X25 | 25 | 7/2.14 | 2 | 1100 | 21.40 | 24 | FPC1923 | 1BC1923HT | - |
| FP3X25 | 25 | 7/2.14 | 3 | 1800 | 26.60 | 32 | FPC2327 | 1BC2327HT | - |
| FP4X25 | 25 | 7/2.14 | 4 | 2150 | 28.80 | 32 | FPC2732 | 1BC2732HT | - |
| FP5X25 | 25 | 7/2.14 | 5 | 2700 | 32.00 | 32 | FPC2732 | 1BC2732HT | - |

BS7846 FIRE RESISTANT MAINS LSZH CABLE - DIMENSIONS

| | | | | | | | | | |
|---------|-----|---------|---|-------|-------|-----|---------|-----------|-------------|
| FP2X35 | 35 | 7/2.52 | 2 | 1550 | 24.30 | 25 | FPC2327 | 1BC2327HT | - |
| FP3X35 | 35 | 7/2.52 | 3 | 2200 | 29.10 | 32 | FPC2732 | 1BC2732HT | - |
| FP4X35 | 35 | 7/2.52 | 4 | 2650 | 31.60 | 32 | FPC2732 | 1BC2732HT | - |
| FP2X50 | 50 | 19/1.78 | 2 | 1850 | 26.80 | 32 | FPC2327 | 1BC2327HT | - |
| FP3X50 | 50 | 19/1.78 | 3 | 2450 | 29.60 | 32 | FPC2732 | 1BC2732HT | - |
| FP4X50 | 50 | 19/1.78 | 4 | 3100 | 33.20 | 40 | FPC3238 | 1BC3238HT | - |
| FP2X70 | 70 | 19/2.14 | 2 | 2450 | 30.00 | 32 | FPC2732 | 1BC2732HT | - |
| FP3X70 | 70 | 19/2.14 | 3 | 3200 | 33.30 | 40 | FPC3238 | 1BC3238HT | - |
| FP4X70 | 70 | 19/2.14 | 4 | 4400 | 38.90 | 40 | FPC3846 | 1BC3845HT | 2BC038048HT |
| FP2X95 | 95 | 19/2.52 | 2 | 3350 | 34.10 | 40 | FPC3238 | 1BC3238HT | - |
| FP3X95 | 95 | 19/2.52 | 3 | 4450 | 38.10 | 40 | FPC3846 | 1BC3845HT | 2BC038048HT |
| FP4X95 | 95 | 19/2.52 | 4 | 5650 | 42.90 | 50S | FPC3846 | 1BC3845HT | 2BC038048HT |
| FP2X120 | 120 | 37/2.03 | 2 | 3900 | 37.10 | 40 | FPC3238 | 1BC3238HT | - |
| FP3X120 | 120 | 37/2.03 | 3 | 5300 | 41.50 | 50S | FPC3846 | 1BC3845HT | 2BC038048HT |
| FP4X120 | 120 | 37/2.03 | 4 | 7250 | 48.30 | 50 | FPC4651 | 1BC4551HT | 2BC048058HT |
| FP2X150 | 150 | 37/2.25 | 2 | 4650 | 40.30 | 50S | FPC3846 | 1BC3845HT | 2BC038048HT |
| FP3X150 | 150 | 37/2.25 | 3 | 6700 | 46.60 | 50 | FPC4651 | 1BC4551HT | 2BC038048HT |
| FP4X150 | 150 | 37/2.25 | 4 | 8550 | 52.60 | 50 | FPC5157 | 1BC5158HT | 2BC048058HT |
| FP2X185 | 185 | 37/2.52 | 2 | 5950 | 45.70 | 50 | FPC3846 | 1BC4551HT | 2BC038048HT |
| FP3X185 | 185 | 37/2.52 | 3 | 8050 | 50.90 | 50 | FPC4651 | 1BC4551HT | 2BC048058HT |
| FP4X185 | 185 | 37/2.52 | 4 | 10300 | 57.80 | 63S | FPC5765 | 1BC5158HT | 2BC048058HT |
| FP2X240 | 240 | 61/2.25 | 2 | 7350 | 50.00 | 50 | FPC4651 | 1BC4551HT | 2BC048058HT |
| FP3X240 | 240 | 61/2.25 | 3 | 9950 | 56.20 | 63S | FPC5157 | 1BC5158HT | 2BC048058HT |
| FP4X240 | 240 | 61/2.25 | 4 | 12900 | 64.20 | 63 | FPC5765 | 1BC5865HT | 2BC058070HT |
| FP2X300 | 300 | 61/2.52 | 2 | 8700 | 54.50 | 63S | FPC5157 | 1BC5158HT | 2BC048058HT |
| FP3X300 | 300 | 61/2.52 | 3 | 12050 | 61.30 | 63 | FPC5765 | 1BC5865HT | 2BC058070HT |
| FP4X300 | 300 | 61/2.52 | 4 | 15550 | 70.00 | 75S | - | 1BC6571HT | 2BC058070HT |
| FP3X400 | 400 | 61/2.85 | 3 | 14800 | 67.70 | 75S | - | 1BC6571HT | 2BC058070HT |
| FP4X400 | 400 | 61/2.85 | 4 | 20250 | 79.30 | 90 | - | - | 2BC070083HT |

BS7846 FIRE RESISTANT MAINS LSZH CABLE – CARRYING CAPACITY (AMPERES)

| NOMINAL CROSS SECTIONAL AREA (MM ²) | 2 CORE | | | 3, 4 AND 5 CORE | | | 7, 12, 19, 27, 37 AND 48 CORE | | | | | |
|---|------------------|--------------|-------------|------------------|--------------|-------------|-------------------------------|--------------|-------------|------------------|--------------|-------------|
| | SINGLE PHASE | | | THREE PHASE | | | SINGLE PHASE | | | THREE-PHASE | | |
| | LAID DIRECT AMPS | IN DUCT AMPS | IN AIR AMPS | LAID DIRECT AMPS | IN DUCT AMPS | IN AIR AMPS | LAID DIRECT AMPS | IN DUCT AMPS | IN AIR AMPS | LAID DIRECT AMPS | IN DUCT AMPS | IN AIR AMPS |
| 1.5 | 38 | 31 | 31 | 32 | 26 | 26 | 38 | 31 | 31 | 32 | 26 | 26 |
| 2.5 | 49 | 41 | 41 | 42 | 34 | 35 | 49 | 41 | 41 | 42 | 34 | 35 |
| 4 | 65 | 53 | 55 | 55 | 45 | 47 | 65 | 53 | 55 | 55 | 45 | 47 |
| 6 | 81 | 67 | 70 | 69 | 56 | 59 | - | - | - | - | - | - |
| 10 | 109 | 89 | 95 | 92 | 75 | 82 | - | - | - | - | - | - |
| 16 | 141 | 115 | 126 | 119 | 96 | 107 | - | - | - | - | - | - |
| 25 | 183 | 148 | 164 | 152 | 124 | 140 | - | - | - | - | - | - |
| 35 | 219 | 178 | 202 | 182 | 149 | 172 | - | - | - | - | - | - |
| 50 | 259 | 211 | 244 | 217 | 177 | 209 | - | - | - | - | - | - |
| 70 | 317 | 260 | 306 | 266 | 218 | 263 | - | - | - | - | - | - |
| 95 | 381 | 313 | 378 | 319 | 263 | 324 | - | - | - | - | - | - |
| 120 | 433 | 357 | 437 | 363 | 300 | 376 | - | - | - | - | - | - |
| 150 | 485 | 401 | 499 | 406 | 338 | 430 | - | - | - | - | - | - |
| 185 | 547 | 455 | 576 | 458 | 282 | 495 | - | - | - | - | - | - |
| 240 | 632 | 527 | 680 | 529 | 442 | 584 | - | - | - | - | - | - |
| 300 | 708 | 592 | 775 | 592 | 496 | 672 | - | - | - | - | - | - |
| 400 | 799 | 669 | 892 | 667 | 570 | 766 | - | - | - | - | - | - |

BS7846 FIRE RESISTANT MAINS LSZH CABLE – VOLTAGE DROP

| NOMINAL CROSS SECTIONAL AREA (MM ²) | DC MV/A/M | SINGLE PHASE AC MV/A/M | THREE PHASE AC MV/A/M |
|---|-----------|------------------------|-----------------------|
| 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 |
| 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 | 0.32 |
| 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 |

The above is in accordance with 18th Edition of IET Wiring Regulations

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.