**Fire Resistant Power Cable BS7846 – F120 (Enhanced)**

**Description:** Special fire resistant cables designed to survive and operate during arduous fire conditions. These are designed as per BS 7846 standard and are LPCB approved for F120 fire test as per BS 8491 standard as well as BASEC approval.

As described in BS 8519, fire resistant cables are classified for Life Safety and Fire Fighting systems with different fire survival time of 30 minutes, 60 minutes or 120 minutes. These cables meet the 120 minutes fire survival test. During the F120 fire survival test as per BS 8491 the cable sample is subjected to fire and mechanical shock with direct impact on the cable as well as being subjected to high pressure water spray.

**Application:**
- Areas where there is a high concentration of people eg. schools, shopping malls, railway stations etc.
- Services where circuit integrity is very important under fire conditions eg. special equipment in hospital
- Essential safety circuit eg. fire detection, fire alarm etc.
- Power supply to equipment used in fire-fighting eg. sprinkler pumps
- In large buildings where fire strategy involves evacuation of occupants in phased manner.

**Conductor:** Plain annealed copper stranded circular (4 - 35mm²) or shaped (50 – 400mm²) conductor complying with BS EN 60228 Class 2

**Insulation:**
- Primary insulation: Mineral ceramic (Mica/Glass) fire resistant tape
- Secondary insulation: 90°C cross – linked insulation

**Core identification:**
- 2 core – Brown and Blue
- 3 core – Brown, Black and Grey
- 4 core – Blue, Brown, Black and Grey

**Bedding:** Thermoplastic LSZH bedding compound

**Armour:** Single layer of galvanised steel wires

**Sheath:** Robust thermoplastic LSZH sheath

**Colour:** Black (other colours available for special order)

**Properties:** Reduced flame propagation, low smoke and corrosive gas emission.

**Installation:** Minimum recommended installation temperature: 0°C

Should be installed in accordance with BS7671/IEE Wiring regulations.

**Bending radius:**
- Circular conductors: 6 x overall diameter
- Shaped conductors: 8 x overall diameter

**Temperature:** The tabulated ratings are based upon a 30°C ambient temperature and 90°C operating temperature

**Standards:**
- BS7846 – F120, 120mins fire, water jet and direct impact, BS8491 – F120, BS EN 60332-1
- BS EN 60332-3 Categories A, B & C, IEC60754, BS EN 50267-2-1:, IEC 61034, BS EN 50268

**Approvals:**
- BASEC
- LPCB

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