

Fire Resistant Cables

Three core, Overall Screen, LSZH-HFFR Sheath

BS6387 CWZ

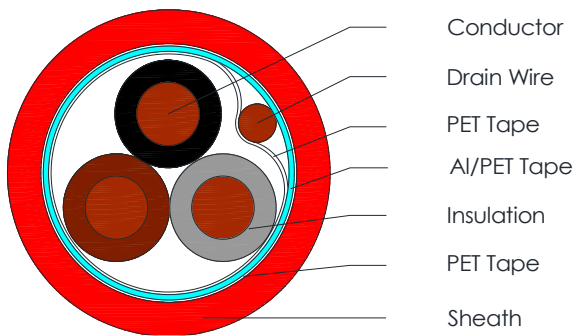


CI 159, CI 160, CI 161 CI 162, CI 163

Applications

Three core Fire Resistant cable for Building and Industrial Management Systems

Cross Section Drawing



Appendix to Cert/LPCB ref. No. 1168a-(cl-1)/01

Design

| Unit | Properties |
|------------------------|---|
| Conductor | Bare Copper wires |
| Insulation | Ceramifiable Silicon Rubber Core 1: Black, Core 2: Brown Core 3: Grey |
| Cable Core lay-up | Three wires twisted together |
| Wrapping | Polyester Tape |
| Drain Wire | Tinned Copper wire |
| Screen | Aluminium/Polyester tape |
| Wrapping | Polyester Tape |
| Sheath Material | Low Smoke Zero Halogen / Halogen Free Flame-Retardant (LSZH/HFFR) Standard Colour: Red |
| Standard Put Up Length | 305 and 500 metres |

*Other Colors, Put Up Lengths and structures can be manufactured upon request, please contact your local B3 International sales representative.

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C1159, C1160, C1161 C1162, C1163

Physical Characteristics

| Part Number | C1159 | C1160 | C1161* | C1162 | C1163 |
|--|---|----------|----------|---------|----------|
| No of cores x cross section in sqmm (mm ²) | 3 x 0.75 | 3 x 1.0 | 3 x 1.5 | 3 x 2.5 | 3 x 4.0 |
| Nom. Diameter Conductor (mm) | 1 x 1.0 | 1 x 1.13 | 1 x 1.38 | 1 x 1.8 | 7 x 0.85 |
| Nom. Radial Thickness Insulation (mm) | 0.7 | 0.7 | 0.7 | 0.8 | 0.9 |
| Diameter over insulation (mm) | 2.4 | 2.5 | 2.8 | 3.4 | 4.35 |
| Screen Coverage (%) | 115 | | | | |
| Nom. Cross Section Drain Wire (mm ²) | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Nom. Overall Diameter (mm) | 7.3 | 7.5 | 8.7 | 9.9 | 12.0 |
| Operating Temperature (°C) | -40 to +90 | | | | |
| Installation Temperature (°C) | -15 to +90 | | | | |
| Minimum bending radius (mm) | 80 | 80 | 90 | 100 | 120 |
| Max. recommended pulling tension (N) | 190 | 240 | 350 | 570 | 770 |
| Fire Resistance to BS6387, Cat. C | Exposed to fire at 950°C for 3 hours | | | | |
| Fire Resistance to BS6387, Cat. W | Exposed to fire at 650°C for 15 minutes, then exposed to fire at 650°C with water for 15 minutes | | | | |
| Fire Resistance to BS6387, Cat. Z | Exposed to fire at 950°C for 15 minutes, then exposed to fire at 950°C with mechanical shock for 15 minutes | | | | |
| Fire Resistance to IEC 60331-21 | Exposed to fire at 750°C for 90 minutes | | | | |
| Fire Retardancy | IEC 60332-3C | | | | |

Electrical Characteristics at 20°C

| Part Number | C1159 | C1160 | C1161* | C1162 | C1163 |
|---|---------|-------|--------|-------|-------|
| Max. DC Resistance Conductor (Ω/km) | 24.5 | 18.1 | 12.1 | 7.41 | 4.61 |
| Min. Insulation Resistance (MΩ*k m) | 200 | | | | |
| Test Voltage (Vrms) | 3000 | | | | |
| Max. recommended current at 25°C (Amps) | 12 | 18 | 21 | 30 | 40 |
| Max. Operating Voltage (Vrms) | 300/500 | | | | |

Reference Standards

| | |
|--------------------------|-----------------|
| EN 50267-2-1, | BS EN 50363-1 |
| BS 7655.1.1, BS 7655.6.1 | EN 50200 PH120 |
| EN 50290-2-27 | VDE 472-814 |
| IEC 60228 | IEC 60754-1&-2 |
| IEC 60332-3-24 | IEC 61034-1&-2 |
| IEC 60331-21 FE180 | BS 6360 |
| BS 6387 CWZ | RoHS Directives |

*Subject to LPCB certification