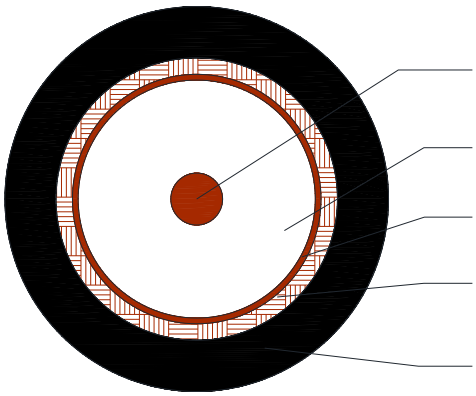
# Communication Networks Coaxial Distribution Cable, PVC or PE or LSZH-HFFR Sheath

C1292, C1293, C5894

## Applications

Used for cabled distribution networks designed according to European Standard EN50117-2-1 and EN50117-2-4 operating at frequencies between 5 and 3000MHz.

### Cross Section Drawing




## Design

| Unit | Properties |
|---|---|
| Conductor | Solid annealed bare copper wires |
| Insulation | Foamed Polyethylene |
| Screen | Copper foil |
| Braiding | Bare copper wire |
| Sheath | Polyvinyl Chloride (PVC)<br>or Polyetheyle (PE)<br>or Halogen Free Flame Retatdancy (LSZH-HFFR)<br>Color: Black |
| Standard Put Up Length | 305 or 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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### Physical Characteristics

| Part Number | C1292 | C1293 | C5894 |
|---|---|---|---|
| Sheath Material | PVC | PE | LSZH-HFFR |
| Nom. Diameter Conductor(mm) | 1.00 | 1.55 | 1.55 |
| Nom. Diameter Dielectric | 4.80 | 7.25 | 7.25 |
| Screen Coverage (%) | 115 | | |
| Coverage Braid (%) | 34 | 46 | 45 |
| Nom. Overall Diameter(mm) | 6.8 | 10.1 | 10.1 |
| Operating Temperature (°C) | -40 to +70 | -60 to +70 | -30 to +70 |
| Min. Bend Radius (install)(mm) | 70 | 100 | 100 |

### Electrical Characteristics at 20°C

| Part Number | C1292 | C1293 | C5894 |
|---|---|---|---|
| Max. DC Inner Conductor Resistance (Ω/km) | 23 | 9.4 | 9.4 |
| Max. DC Outer Conductor Resistance (Ω /km) | 18 | 12.3 | 12.3 |
| Characteristic Impedance (Ω) | 75±3 | | |
| Nom. Mutual Capacitance (pF/m) | 55 | | |
| Velocity of Propagation (%)) | 81 | | |
| Dielectric Strength (Vdc) | 2000 | 3000 | 3000 |
| Min. Insulation Resistance (MOhms*k m) | 10000 | | |
| Min. Screen efficiency 30-1000MHz (dB) | 75 | 85 | 85 |
| Max. Transfer Impedance (mΩ/m) | - | 15 | 15 |

### Return loss at 20°C

| Frequency (MHz) | Min. Return Loss (dB/100m) | | |
|---|---|---|---|
| | C1292 | C1293 | C5894 |
| 5-30 | 23 | 26 | 26 |
| 30-470 | 23 | 26 | 26 |
| 470-1000 | 20 | 23 | 23 |
| 1000-2000 | 18 | 18 | 18 |
| 2000-3000 | 16 | 16 | 16 |

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### Attenuation at 20°C

| Frequency (MHz) | Nom. Attenuation (Max. attenuation =Nom.+10%)(dB/100m) | | |
|---|---|---|---|
| | C1292 | C1293 | C5894 |
| 5 | 1.4 | 0.9 | 0.9 |
| 50 | 4.3 | 2.8 | 2.8 |
| 100 | 6.1 | 3.9 | 3.9 |
| 200 | 8.6 | 5.7 | 5.7 |
| 400 | 12.3 | 8.2 | 8.2 |
| 600 | 15.2 | 10.2 | 10.2 |
| 800 | 17.7 | 12.0 | 12.0 |
| 1000 | 19.9 | 13.6 | 13.6 |
| 1350 | 23.5 | 16.1 | 16.1 |
| 1600 | - | 17.8 | 17.8 |
| 1750 | 27.0 | 18.7 | 18.7 |
| 2150 | 30.2 | 21.1 | 21.1 |
| 2400 | 32.1 | 22.5 | 22.5 |
| 2600 | - | 23.6 | 23.6 |
| 2800 | - | 24.7 | 24.7 |
| 3000 | - | 25.6 | 25.6 |

### Reference Standards

| | |
|---|---|
| (BS) EN 50290-2 | IEC 60332-1 (LSZH only) |
| (BS) EN 50117 | IEC 60754-1&-2 (LSZH only) |
| IEC 61196 | IEC 61034_1&-2 (LSZH only) |
| RoHS directives | |