
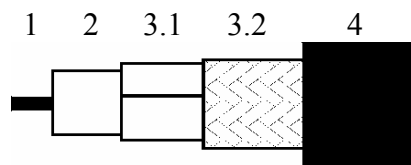


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|  | TECHNICAL DATA SHEET | Code | CTF100 |
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APPLICATION

Coaxial cables used in cabled distribution networks designed according the European Standard EN 50117-2-1 and En 50117-2-4 operating at frequencies between 5 MHz and 3000 MHz.

CONSTRUCTION




| | | |
|-----|-----------------|---|
| 1 | Inner conductor | Solid soft annealed copper |
| 2 | Dielectric | Gas injected LDPE |
| 3.1 | Foil | Copper-polyester foil |
| 3.2 | Braid | Annealed copper |
| 4 | Sheath | PVC according the European Standard HD 624. |

REQUIREMENTS AND TEST METHODS

Test methods in accordance with European standard EN 50117-1.

Mechanical characteristics

| | |
|-----------------------------------|--------------------------|
| 1. Inner conductor: | |
| Diameter: | 0.96 mm ± 0.02 mm |
| 2. Dielectric: | |
| Diameter: | 4.7 mm ± 0.15 mm |
| Adhesion: | 7.5 – 75 N at 25 mm |
| 3. Outer conductor: | |
| Diameter screen: | 5.35 mm ± 0.15 mm |
| Coverage braid: | 55 % ± 5 % |
| 4. Sheath: | |
| Diameter: | 6.65 mm ± 0.2 mm |
| Tensile strength: | ≥ 12.5 N/mm ² |
| Elongation at break: | ≥ 150 % |
| 5. Cable: | |
| Storage/operation temperature: | -40°C to +70°C |
| Minimum installation temperature: | -5 °C |
| Minimum static bend radius: | 35 mm |

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Electrical characteristics

| | |
|------------------------------------|---------------------------|
| Mean characteristic impedance: | 75 ± 3 Ω |
| Regularity of impedance: | >40dB or <1% |
| DC loop resistance: | ≤ 41 Ohm/km |
| DC resistance inner conductor: | ≤ 26 Ohm/km |
| DC resistance outer conductor: | ≤ 15 Ohm/km |
| Capacitance: | 55.0 pF/m ± 2.0 pF/m |
| Velocity ratio: | 0.82 ± 0.02 |
| Insulation resistance: | > 10 ⁴ MOhm.km |
| Voltage test of dielectric: | 2 kVdc |
| Screening efficiency after flexing | |
| 30-1000 MHz: | ≥ 75 dB |
| 1000 – 2000 MHz: | ≥ 65 dB |
| 2000 – 3000 MHz: | ≥ 55 dB |
| Return loss at | |
| 5-30 MHz: | ≥ 20 dB* |
| 30-470 MHz: | ≥ 20 dB* |
| 470-1000 MHz: | ≥ 18 dB* |
| 1000-2000 MHz: | ≥ 16 dB* |
| 2000-3000 MHz: | ≥ 15 dB* |

*Max. 3 peak values 4 dB lower than specified.

| | | | |
|----------------|--------------|----------------|--------------|
| Attenuation at | Maximal | Attenuation at | Maximal |
| 5 MHz: | 1.6 dB/100m | 860 MHz: | 19.5 dB/100m |
| 50 MHz: | 4.6 dB/100m | 1000 MHz: | 21.5 dB/100m |
| 100 MHz: | 6.5 dB/100m | 1750 MHz: | 29.0 dB/100m |
| 200 MHz: | 9.5 dB/100m | 2150 MHz: | 32.5 dB/100m |
| 460 MHz: | 15.0 dB/100m | 2400 MHz: | 34.4 dB/100m |
| 800 MHz: | 18.8 dB/100m | 3000 MHz: | 38.4 dB/100m |

REVISIONS

| # | Description | Date | Initials |
|---|-------------|------|----------|
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Belden CDT believes this product to be in compliance with the environmental regulations EU RoHS (Directive 2002/95/EC, 27 January 2003); this is valid for all material produced after the RoHS compliant date for this product.