# **Detailed Specifications & Technical Data**



### METRIC MEASUREMENT VERSION



### 87778 Multi-Conductor - CMP Rated (Plenum) Cable

For more Information please call

1-800-Belden1



### **General Description:**

22 AWG stranded (7x30) TC conductor, FEP insulation, twisted pairs individually shielded with Beldfoil® (100% coverage), overall jacket per table below, 22 AWG stranded TC drain wire.

| Physical Characteristics (Overall)                |                    |
|---|--------------------|
| Conductor   |                    |
| AWG:  |                    |
| # Pairs AWG Stranding Conductor Material Dia. (m  | im)                |
| 6 22 7x30 TC - Tinned Copper 0.762                |                    |
| Total Number of Conductors:                       | 12                 |
| Insulation<br>Insulation Material:                |                    |
| Insulation Material Wall Thickness                | s (mm)             |
| FEP - Fluorinated Ethylene Propylene 0.254        |                    |
| Inner Shield<br>Inner Shield Material:            |                    |
| Inner Shield Trade Name Type Inner Shield Materia | al Coverage (%)    |
| Beldfoil® (Z-Fold®) Tape Aluminum Foil-Polyes     | ster Tape 100      |
| Inner Shield Drain Wire AWG:<br>AWG<br>22         |                    |
| Inner Shield Drain Wire Stranding:                | Stranded           |
| Inner Shield Drain Wire Conductor Material:       | TC - Tinned Copper |
| Outer Shield                                      |                    |
| Outer Shield Material:                            |                    |
| Outer Shield Material<br>Unshielded               |                    |
| Outer Jacket                                      |                    |
| Outer Jacket Material:                            |                    |
| Outer Jacket Material Nom. Wall Thickness (mm)    |                    |
| PVDF - Fluorocopolymer 0.356                      |                    |
| Overall Cable                                     |                    |
| Overall Nominal Diameter:                         | 7.849 mm           |
| Pair  |                    |
| Pair Color Code Chart:                            |                    |
| Number Color                                      |                    |
| 1 Black & Red                                     |                    |
| 2 Black & White                                   |                    |
| 3 Black & Green                                   |                    |
| 4 Black & Blue                                    |                    |
| 5 Black & Yellow                                  |                    |
| 6 Black & Brown                                   |                    |

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| echanical Characteristics (Overall)      |                           |  |  |  |  |
|--|---------------------------|--|--|--|--|
| Operating Temperature Range:             | -20°C To +150°C           |  |  |  |  |
| Bulk Cable Weight:                       | 98.221 Kg/Km<br>725.057 N |  |  |  |  |
| Max. Recommended Pulling Tension:        |                           |  |  |  |  |
| Min. Bend Radius/Minor Axis:             | 82.550 mm                 |  |  |  |  |
| oplicable Specifications and Agency Co   | ompliance (Overall)       |  |  |  |  |
| pplicable Standards & Environmental Prog | rams                      |  |  |  |  |
| NEC/(UL) Specification:                  | CMP                       |  |  |  |  |
| CEC/C(UL) Specification:                 | СМР                       |  |  |  |  |
| EU Directive 2011/65/EU (ROHS II):       | Yes                       |  |  |  |  |
| EU CE Mark:                              | Yes                       |  |  |  |  |
| EU Directive 2000/53/EC (ELV):           | Yes                       |  |  |  |  |
| EU Directive 2002/95/EC (RoHS):          | Yes                       |  |  |  |  |
| EU RoHS Compliance Date (mm/dd/yyyy):    | 04/01/2005                |  |  |  |  |
| EU Directive 2002/96/EC (WEEE):          | Yes                       |  |  |  |  |
| EU Directive 2003/11/EC (BFR):           | Yes                       |  |  |  |  |
| CA Prop 65 (CJ for Wire & Cable):        | Yes                       |  |  |  |  |
| MII Order #39 (China RoHS):              | Yes                       |  |  |  |  |
| lame Test                                |                           |  |  |  |  |
| UL Flame Test:                           | NFPA 262                  |  |  |  |  |
| CSA Flame Test:                          | FT6                       |  |  |  |  |
| Plenum/Non-Plenum                        |                           |  |  |  |  |
| Plenum (Y/N):                            | Yes                       |  |  |  |  |
| Non-Plenum Number:                       | 8778                      |  |  |  |  |

### **Electrical Characteristics (Overall)**

Nom. Characteristic Impedance:

Impedance (Ohm) 50

Nom. Inductance:

Inductance (µH/m)

0.59058

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/m) 101.711

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/m)

219.827

Nominal Velocity of Propagation:



Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)

52.496

Ind. Pair Nominal Shield DC Resistance @ 20 37 Deg. C:

37.075 Ohm/km

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Max. Operating Voltage - UL:

Voltage

300 V RMS

#### Max. Recommended Current:

Current

1.96 Amps per conductor @ 25°C

### **Put Ups and Colors:**

| Item #        | Putup    | Ship Weight | Color | Notes | Item Desc             |
|---------------|----------|-------------|-------|-------|-----------------------|
| 87778 0021000 | 1,000 FT | 71.000 LB   | RED   | С     | 6 SH PR #22 FEP SOLEF |
| 87778 002500  | 500 FT   | 37.000 LB   | RED   | С     | 6 SH PR #22 FEP SOLEF |

Notes:

C = CRATE REEL PUT-UP.

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