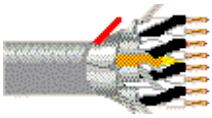
# Detailed Specifications & Technical Data

**METRIC MEASUREMENT VERSION**

## 1077A Multi-Conductor - 300V Power-Limited Tray Cable



For more Information
please call

1-800-Belden1

## General Description:

20 AWG pairs stranded (7x28) bare copper conductors, twisted pairs, PVC insulation, individually shielded plus an overall Beldfoil shield (100% coverage), PVC jacket.

## Physical Characteristics (Overall)

### Conductor

**AWG:**

| # Conductors | # Pairs | AWG | Stranding | Conductor Material |
|---|---|---|---|---|
| | 8 | 20 | 7x28 | BC - Bare Copper |
| 1 | | 22 | 7x30 | BC - Bare Copper |

**Total Number of Conductors:** 17

### Insulation

**Insulation Material:**

| Insulation Material | Dia. (mm) |
|---|---|
| PVC - Polyvinyl Chloride | 1.7272 |

### Inner Shield

**Inner Shield Material:**

| Inner Shield Trade Name | Type | Inner Shield Material | Coverage (%) |
|---|---|---|---|
| Beldfoil® | Tape | Aluminum Foil-Polyester Tape | 100 |

**Inner Shield Drain Wire AWG:**

| AWG | Stranding | Conductor Material |
|---|---|---|
| 22 | 7x30 | TC - Tinned Copper |

### Outer Shield

**Outer Shield Material:**

| Outer Shield Trade Name | Type | Outer Shield Material | Coverage (%) |
|---|---|---|---|
| Beldfoil® | Tape | Aluminum Foil-Polyester Tape | 100 |

**Outer Shield Drain Wire AWG:**

| AWG | Stranding | Drain Wire Conductor Material |
|---|---|---|
| 20 | 7x28 | TC - Tinned Copper |

### Outer Jacket

**Outer Jacket Material:**

| Outer Jacket Material | Nom. Wall Thickness (mm) |
|---|---|
| PVC - Polyvinyl Chloride | 1.3462 |

**Outer Jacket Ripcord:** Yes

### Overall Cable

**Overall Cabling Lay Length & Direction:**

| Direction |
|---|
| Left-hand Lay |

**Overall Nominal Diameter:** 13.056 mm

### Pair

**Pair Color Code Chart:**

| Number | Color |
|---|---|
| 1 | Black & White and Numbered 1 |

| | |
|---|---|
| 2 | Black & White and Numbered 2 |
| 3 | Black & White and Numbered 3 |
| 4 | Black & White and Numbered 4 |
| 5 | Black & White and Numbered 5 |
| 6 | Black & White and Numbered 6 |
| 7 | Black & White and Numbered 7 |
| 8 | Black & White and Numbered 8 |
| Communication Wire | Orange |

## Mechanical Characteristics (Overall)

| | |
|---|---|
| **Operating Temperature Range:** | -30°C To +105°C |
| **UL Temperature Rating:** | 105°C |
| **Bulk Cable Weight:** | 248.529 Kg/Km |
| **Max. Recommended Pulling Tension:** | 1423.420 N |
| **Min. Bend Radius/Minor Axis:** | 139.700 mm |

## Applicable Specifications and Agency Compliance (Overall)

### Applicable Standards & Environmental Programs

| | |
|---|---|
| **NEC/(UL) Specification:** | CMG, ITC-ER, PLTC-ER |
| **CEC/C(UL) Specification:** | CMG |
| **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 |

### Flame Test

| | |
|---|---|
| **UL Flame Test:** | UL1685 FT4 Loading |
| **C(UL) Flame Test:** | FT4 |
| **IEEE Flame Test:** | 1202 |

### Suitability

| | |
|---|---|
| **Suitability - Indoor:** | Yes |
| **Suitability - Outdoor:** | Yes |
| **Suitability - Burial:** | Yes |
| **Sunlight Resistance:** | Yes |

### Plenum/Non-Plenum

| | |
|---|---|
| **Plenum (Y/N):** | No |

## Surface Printing (Overall)

| | |
|---|---|
| **Surface Printing:** | LEGEND: BELDEN 1077A E34972 8PR20 1C22 SHIELDED (UL) CMG 105C OR PLTC OR ITC SUN RES OR AWM 2464 80C 300V OR C(UL) CMG ----FT4 IEEE 1202 (2 FT, 7 DIGIT SEQUENTIAL NUMBER) FEET |

## Electrical Characteristics (Overall)

**Nom. Inductance:**

| Inductance (µH/m) |
|---|

| |
|---|
| 0.62339 |

**Nom. Capacitance Conductor to Shield:**

| Capacitance (pF/m) |
|---|
| 180.455 |

**Nom. Capacitance Conductor to Conductor:**

| Capacitance (pF/m) |
|---|
| 98.43 |

**Nom. Conductor DC Resistance:**

| DCR @ 20°C (Ohm/km) |
|---|
| 31.1695 |

**Nominal Outer Shield DC Resistance:**

| DCR @ 20°C (Ohm/km) |
|---|
| 21.3265 |

**Max. Operating Voltage - UL:**

| Voltage | Description |
|---|---|
| 300 V RMS | (PLTC CMG) |
| 150 V RMS | (ITC) |

## Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|---|---|---|---|---|---|
| 1077A 0107500 | 7,500 FT | 1,530.000 LB | BLACK | C Z | 8 SH PR #20 + 1 #22 PVC FS PVC |

**Notes:**
C = CRATE REEL PUT-UP.
Z = FINAL PUT-UP LENGTH MAY VARY (+ OR -) 10% FOR SPOOLS OR REELS AND(+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

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