# Detailed Specifications & Technical Data

**ENGLISH MEASUREMENT VERSION**

## 29513 Composite - 1000V UL Flexible Motor Supply Cable

For more Information please call

1-800-Belden1

## General Description:

1 pr.(Signal)-16 AWG stranded (26x30) TC cond., XLPE insul., Beldfoil® shield (100% c; 3 cond.(VFD) plus 1 ground wire-10 AWG stranded (105x30) TC cond., XLPE insul., Duofoil® and TC braid Shield (100% acdrain, PVC jacket.

## Usage (Overall)

**Suitable Applications:** AC Motor Drive, VFD, Variable Frequency Drive

## Twisted Pair

### Physical Characteristics

#### Conductor

**AWG:**

| # Pairs | AWG | Stranding | Conductor Material |
|---|---|---|---|
| 1 | 16 | 26x30 | TC - Tinned Copper |

#### Insulation

**Insulation Material:**

| Insulation Material | Dia. (in.) |
|---|---|
| XLPE - Cross Linked Polyethylene | 0.030 |

**Twisted Pair Color Code Chart:**

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

#### 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 |
|---|---|---|
| 18 | 19x30 | TC - Tinned Copper |

### Electrical Characteristics

**Nom. Capacitance Conductor to Conductor:**

| Capacitance (pF/ft) |
|---|
| 34.000 |

**Nom. Conductor DC Resistance:**

| DCR @ 20°C (Ohm/1000 ft) |
|---|
| 4.000 |

**Nom. Inner Shield DC Resistance:**

| DCR @ 20°C (Ohm/1000 ft) |
|---|
| 4.990 |

## Multi Conductor

### Physical Characteristics

#### Conductor

**AWG:**

| # Conductors | AWG | Stranding | Conductor Material |
|---|---|---|---|
| 1 | 10 | 105x30 | TC - Tinned Copper |

#### Ground Wire

**Ground Wire (Y/N):** Yes

**Ground Wire Material:**

| AWG | Stranding | Conductor Material | Insulation Material |
|---|---|---|---|
| 10 | 105x30 | TC - Tinned Copper | PVC - Polyvinyl Chloride |

#### Insulation

**Insulation Material:**

| Insulation Material | Dia. (in.) |
|---|---|

| | |
|---|---|
| XLPE - Cross Linked Polyethylene | 0.045 |

**Insulation Color Code Chart:**

| Number | Color |
|---|---|
| 1 | Black #1 |
| 2 | Black #2 |
| 3 | Black #3 |
| 4 | Green/Yellow |

### Outer Shield

**Outer Shield Material:**

| Layer # | Outer Shield Trade Name | Type | Outer Shield Material | Coverage (%) |
|---|---|---|---|---|
| 1 | Duofoil® | Tape | Aluminum Foil-Polyester Tape-Aluminum Foil | 100.000 |
| 2 | | Braid | TC - Tinned Copper | 85.000 |

**Outer Shield Drain Wire AWG:**

| AWG | Stranding | Drain Wire Conductor Material |
|---|---|---|
| 10 | 105x30 | TC - Tinned Copper |

### Electrical Characteristics

**Nom. Inductance:**

| Inductance (µH/ft) |
|---|
| 0.184 |

**Nom. Capacitance Conductor to Shield:**

| Capacitance (pF/ft) |
|---|
| 53.000 |

**Nom. Capacitance Conductor to Conductor:**

| Capacitance (pF/ft) |
|---|
| 29.000 |

**Nom. Conductor DC Resistance:**

| DCR @ 20°C (Ohm/1000 ft) |
|---|
| 0.988 |

## Physical Characteristics (Overall)

### Conductor

### Outer Jacket

**Outer Jacket Material:**

| Outer Jacket Material | Nom. Wall Thickness (in.) |
|---|---|
| PVC - Polyvinyl Chloride | 0.105 |

| | |
|---|---|
| **Outer Jacket Ripcord:** | Yes |

### Overall Cable

| | |
|---|---|
| **Overall Nominal Diameter:** | 0.985 in. |

## Mechanical Characteristics (Overall)

| | |
|---|---|
| **Operating Temperature Range:** | -40°C To +90°C |
| **Max. Recommended Pulling Tension:** | 718 lbs. |
| **Min. Bend Radius/Minor Axis:** | 9.900 in. |

## Applicable Specifications and Agency Compliance (Overall)

### Applicable Standards & Environmental Programs

| | |
|---|---|
| **NEC/(UL) Specification:** | RHW-2 Singles, TC-ER, XHHW-2 |
| **NEC Articles:** | 336 - ER |
| **CEC/C(UL) Specification:** | 600V Type CIC TC |
| **CSA Specification:** | 1000 V AWM I/II A/B |
| **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):** | 09/21/2006 |
| **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 |
| **Other Specification:** | 1000V UL Flexible Motor Supply Cable |

### Flame Test

| | |
|---|---|
| **UL Flame Test:** | UL1685 UL Loading |
| **CSA Flame Test:** | FT4 |
| **IEEE Flame Test:** | 1202, IEEE 383 Vertical Tray Flame Test (70,000 BTU) |

### Suitability

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

### Plenum/Non-Plenum

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

## Electrical Characteristics (Overall)

**Max. Operating Voltage - UL:**

| Voltage |
|---|
| 1000 V RMS (Flexible Motor Supply Cable) |

**Max. Operating Voltage - Other:**

| Voltage |
|---|
| 1000 V RMS (CSA AWM I/II A/B |

## Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|---|---|---|---|---|---|
| 29513 010100 | 100 FT | 89.300 LB | BLACK | C | COMPOSITE CABLE SH PVC |
| 29513 0101000 | 1,000 FT | 563.000 LB | BLACK | C | COMPOSITE CABLE SH PVC |
| 29513 0103000 | 3,000 FT | 1,671.000 LB | BLACK | C | COMPOSITE CABLE SH PVC |
| 29513 010500 | 500 FT | 286.500 LB | BLACK | C | COMPOSITE CABLE SH PVC |

**Notes:**
C = CRATE REEL PUT-UP.

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