



**Product:** [29529F](#) 

VFD 100% Gnd, 3C #1/0 Str TC XLPE Ins + #1/0 Symm. Seg. Gnd (3 of #4) Str TC, CTS, Blk TPE Jkt, 600/1000V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable WTTC

 [Request Sample](#)

## Product Description

Belden 100% Ground Extra Flexible VFD, 3 Conductor 1/0AWG (19x56x30) Tinned Copper XLPE Insulation M4 Color Code + 1/0AWG Symmetrical Segmented Ground (3 of 4AWG) Tinned Copper Stranded, Overall Dual Copper Tape Helically Applied Shield, Black TPE Outer Jacket, 600/1000V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable 1000V WTTC 600V CIC TC SUN RES OIL RES II

## Technical Specifications

### Product Overview

|                        |                                                                                                                                                                                    |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suitable Applications: | Variable Frequency Drives (VFD); AC Motor and Drive Systems, Exposure to high flex, motion, and abrasion, Hard to reach installation areas; Class 1 Division 2 Hazardous Locations |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Construction Details

#### Conductor

| Element      | No. of Elements | Size    | Stranding | Material           | Notes             |
|--------------|-----------------|---------|-----------|--------------------|-------------------|
| Conductor(s) | 3               | 1/0 AWG | 19x56x30  | TC - Tinned Copper |                   |
| Ground       | 3               | 4 AWG   | 7x60x30   | TC - Tinned Copper | Segmented Grounds |

#### Insulation

| Element      | Material                                     | Nom. Thickness    | Color Code         |
|--------------|----------------------------------------------|-------------------|--------------------|
| Conductor(s) | XLPE - Cross-Linked Polyethylene (Thermoset) | 0.057 in (1.4 mm) | Black and Numbered |
| Ground       | No Insulation                                |                   |                    |

#### Outer Shield

| Shield Type  | Material         | Coverage |
|--------------|------------------|----------|
| Helical Tape | Bare Copper (BC) | 100%     |
| Helical Tape | Bare Copper (BC) | 100%     |

#### Outer Jacket

| Material                      | Nom. Thickness    | Nom. Diameter       | Ripcord |
|-------------------------------|-------------------|---------------------|---------|
| TPE - Thermoplastic Elastomer | 0.083 in (2.1 mm) | 1.292 in (32.82 mm) | Yes     |

Overall Cable Diameter (Nominal): 1.292 in (32.82 mm)

### Electrical Characteristics

#### Electricals

| Element      | Nom. Conductor DCR             | Nom. Capacitance Cond-to-Cond | Nom. Capacitance Cond-to-Other (Conds + Shield) | Nom. Characteristic Impedance | Nom. Velocity of Prop. | Max. Current                             |
|--------------|--------------------------------|-------------------------------|-------------------------------------------------|-------------------------------|------------------------|------------------------------------------|
| Conductor(s) | 0.096 Ohm/1000ft (0.31 Ohm/km) | 23 pF/ft (75 pF/m)            | 42 pF/ft (140 pF/m)                             | 80 Ohm                        | 55%                    | 170 Amps per Conductor at 30°C (per NEC) |

#### Voltage

| UL Voltage Rating                                                       |
|-------------------------------------------------------------------------|
| 1000 V (TC, WTTC, UL Flexible Motor Supply Cable), 600 V (C(UL) CIC TC) |

### Mechanical Characteristics

#### Temperature

| UL Temperature     | Operating      |
|--------------------|----------------|
| 90°C Dry, 90°C Wet | -40°C To +90°C |

Bend Radius

| Stationary Min. | Installation Min. | Flexing Min.     |
|-----------------|-------------------|------------------|
| 7.5 in (190 mm) | 15.5 in (394 mm)  | 15.5 in (394 mm) |

|                    |                              |
|--------------------|------------------------------|
| Max. Pull Tension: | 5787 lbs (2625 kg)           |
| Bulk Cable Weight: | 1763 lbs/1000ft (2624 kg/km) |

Standards and Compliance

|                                  |                                                                                                                           |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Environmental Suitability:       | Indoor, Outdoor, Sunlight Resistance, Oil Resistance, Burial                                                              |
| Sustainability:                  | CA Prop 65                                                                                                                |
| Flammability / Reaction to Fire: | UL1685 UL Loading, FT4, 1202, 383 Vertical Tray Flame Test (70,000 BTU)                                                   |
| NEC / UL Compliance:             | Article 336, TC-ER, WTTTC, XHHW-2, UL Flexible Motor Supply Cable                                                         |
| CEC / C(UL) Compliance:          | CIC, TC.                                                                                                                  |
| ICEA Compliance:                 | S-95-658                                                                                                                  |
| European Directive Compliance:   | EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE) |
| APAC Compliance:                 | China RoHS II (GB/T 26572-2011)                                                                                           |

History

|                      |                                                  |
|----------------------|--------------------------------------------------|
| Update and Revision: | Revision Number: 0.596 Revision Date: 03-24-2026 |
|----------------------|--------------------------------------------------|

Part Numbers

Variants

| Item #         | Color | Putup Type | UPC          |
|----------------|-------|------------|--------------|
| 29529F 0102500 | Black | Reel       | 612825373391 |

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