



Product: [29546](#)

VFD 100% Gnd, 3C #3/0 Str TC XLPE Ins + #3/0 Symm. Seg. Gnd (3 of #4+) Str BC, CTS, Blk PVC Jkt, 2000V TC-ER 90C Dry/Wet 2000V Flexible Motor Supply Cable WTTC

Request Sample

Product Description

Belden 100% Ground Flexible VFD, 3 Conductor 3/0AWG (7x19x19) Tinned Copper XLPE Insulation M4 Color Code + 3/0AWG Symmetrical Segmented Ground (3 of 4AWG+) Bare Copper Stranded, Overall Dual Copper Tapes Helically Applied Shield, Black PVC Outer Jacket, 2000V TC-ER 90C Dry/Wet 2000V Flexible Motor Supply Cable WTTC 1000V CSA AWM I/II A/B 2000V RW90 TC SUN RES DIR BUR Oil Resistant

Technical Specifications

Product Overview

|                        |  |
|------------------------|--|
| Suitable Applications: | Variable Frequency Drives (VFD); AC Motor and Drive Systems; High voltage requirements |
|------------------------|--|

Construction Details

Conductor

| Element      | No. of Elements | Size    | Stranding | Material           | Notes             |
|--------------|-----------------|---------|-----------|--------------------|-------------------|
| Conductor(s) | 3               | 3/0 AWG | 19x7x19   | TC - Tinned Copper |                   |
| Ground       | 3               | 4 AWG   | 7x19x25   | BC - Bare Copper   | Segmented Grounds |

Insulation

| Element      | Material                                     | Nom. Thickness    | Color Code         |
|--------------|--|-------------------|--------------------|
| Conductor(s) | XLPE - Cross-Linked Polyethylene (Thermoset) | 0.093 in (2.4 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 |
|--------------------------|--------------------|---------------------|---------|
| PVC - Polyvinyl Chloride | 0.120 in (3.05 mm) | 1.739 in (44.17 mm) | Yes     |

|                                   |                     |
|-----------------------------------|---------------------|
| Overall Cable Diameter (Nominal): | 1.739 in (44.17 mm) |
|-----------------------------------|---------------------|

Electrical Characteristics

Electricals

| Element      | Nom. Conductor DCR             | Nom. Capacitance Cond-to-Cond | Nom. Capacitance Cond-to-Other (Conds + Shield) | Nom. Characteristic Impedence | Nom. Velocity of Prop. | Max. Current                   |
|--------------|--------------------------------|-------------------------------|---|-------------------------------|------------------------|--------------------------------|
| Conductor(s) | 0.059 Ohm/1000ft (0.19 Ohm/km) | 33 pF/ft (110 pF/m)           | 60 pF/ft (200 pF/m)                             | 56 Ohm                        | 55%                    | 225 Amps per Conductor at 30°C |

Voltage

| UL Voltage Rating  |
|--|
| 2000 V (TC, C(UL) TC), 1000 V (WTTC, UL Flexible Motor Supply Cable, CSA AWM I/II A/B) |

Mechanical Characteristics

Temperature

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

Bend Radius

| Stationary Min.  | Installation Min. |
|------------------|-------------------|
| 20.9 in (531 mm) | 20.9 in (531 mm)  |

|                    |                              |
|--------------------|------------------------------|
| Max. Pull Tension: | 7849 lbs (3560 kg)           |
| Bulk Cable Weight: | 2790 lbs/1000ft (4150 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, WTTC, RHW-2, UL Flexible Motor Supply Cable   |
| AWM Compliance:                  | I/II A/B  |
| CEC / C(UL) Compliance:          | 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: 0.488 Revision Date: 05-31-2024 |
|----------------------|--|

Part Numbers

Variants

| Item #        | Color | Putup Type | Length   | UPC          |
|---------------|-------|------------|----------|--------------|
| 29546 0101000 | Black | Reel       | 1,000 ft | 612825138600 |
| 29546 0102000 | Black | Reel       | 2,000 ft | 612825138617 |

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