



Product: [29533](#)

VFD, 3C 250MCM Str BC XLPE Ins + #3 Symm. Seg. Gnd (3 of #8) Str BC, CTS, Blk PVC Jkt, 2000V TC-ER 90C Dry/Wet 1000V CSA 22.2 No. 230 TC

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Product Description

Belden Basics VFD, 3 Conductor 250MCM (37x.0822") Bare Copper XLPE Insulation M4 Color Code + 3AWG Symmetrical Segmented Ground (3 of 8AWG) Bare Copper Stranded, Overall Dual Copper Tapes Helically Applied Shield, Black PVC Outer Jacket, 2000V TC-ER 90C Dry/Wet 1000V CSA 22.2 No. 230 TC SUN RES DIR BUR Oil Resistant

Technical Specifications

Product Overview

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

Construction Details

Conductor

| Element      | No. of Elements | Size    | Stranding     | Material         | Notes             |
|--------------|-----------------|---------|---------------|------------------|-------------------|
| Conductor(s) | 3               | 250 MCM | 37x0.0822 in. | BC - Bare Copper |                   |
| Ground Wire  | 3               | 8 AWG   | 7x16          | BC - Bare Copper | Segmented Grounds |

Insulation

| Element      | Material                                     | Nom. Thickness     | Nom. Insulation Diameter | Color Code    |
|--------------|--|--------------------|--------------------------|---------------|
| Conductor(s) | XLPE - Cross-Linked Polyethylene (Thermoset) | 0.105 in (2.67 mm) | 0.768 in (19.5 mm)       | ICEA Method 4 |
| Ground Wire  | 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 | 0.110 in (2.79 mm) | 1.912 in (48.56 mm) | Yes     |

|                                   |                     |
|-----------------------------------|---------------------|
| Overall Cable Diameter (Nominal): | 1.912 in (48.56 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) | 0.041 Ohm/1000ft             | 30 pF/ft (98 pF/m)            | 54 pF/ft (180 pF/m)                             | 62 Ohm                        | 55%                    | 290 Amps per Conductor at 30°C (per NEC) |
|              | 0.68 Ohm/1000ft (2.2 Ohm/km) |                               |   |                               |                        | 55 Amps per Conductor at 25°C            |

Voltage

| UL Voltage Rating | Voltage Rating  |
|-------------------|-----------------|
| 2000 V (TC, UL44) | 1000 V (CSA TC) |

Mechanical Characteristics

Temperature

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

Bend Radius

| Stationary Min.  | Installation Min. |
|------------------|-------------------|
| 22.9 in (582 mm) | 22.9 in (582 mm)  |

|                    |                     |
|--------------------|---------------------|
| Max. Pull Tension: | 1743 lbs (790.6 kg) |
| Bulk Cable Weight: | 3730 lbs/1000ft     |

Standards and Compliance

|                                  |   |
|----------------------------------|---|
| Environmental Suitability:       | Indoor, Outdoor, Sunlight Resistance, Burial  |
| Sustainability:                  | CA Prop 65  |
| Flammability / Reaction to Fire: | UL 1685 UL Loading, IEEE 1202 FT4, FT4  |
| NEC / UL Compliance:             | Article 336, TC-ER, RHW-2   |
| CEC / C(UL) Compliance:          | CSA 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: 0.543 Revision Date: 05-31-2024 |
|----------------------|--|

Part Numbers

Variants

| Item #        | Color | Putup Type | Length   | UPC          |
|---------------|-------|------------|----------|--------------|
| 29533 0102000 | Black | Reel       |          | 612825353140 |
| 29533 0101500 | Black | Reel       | 1,500 m  | 612825138334 |
| 29533 0102300 | Black | Reel       | 2,300 ft | 612825138341 |

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