



Product: [29528C](#)

VFD, 3C #1 Str BC XLPE Ins + #5 Symm. Seg. Gnd (3 of #10) Str BC, CTS, Blk PVC Jkt, 600/1000V TC-ER 90C Dry/Wet 1000V CSA AWM I/II A/B

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Product Description

Belden Basics VFD, 3 Conductor 1AWG (19x14) Bare Copper XLPE Insulation M4 Color Code + 5AWG Symmetrical Segmented Ground (3 of 10AWG) Bare Copper Stranded, Overall Dual Copper Tapes Helically Applied Shield, Black PVC Outer Jacket, 600/1000V TC-ER 90C Dry/Wet 1000V CSA AWM I/II A/B 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      | Number of Element | Size   | Stranding | Material         | Notes             |
|--------------|-------------------|--------|-----------|------------------|-------------------|
| Conductor(s) | 3                 | 1 AWG  | 19x14     | BC - Bare Copper |                   |
| Ground       | 3                 | 10 AWG | 7x18      | BC - Bare 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 |
|--------------------------|-------------------|---------------------|---------|
| PVC - Polyvinyl Chloride | 0.083 in (2.1 mm) | 1.121 in (28.47 mm) | Yes     |

|                           |                     |
|---------------------------|---------------------|
| Cable Diameter (Nominal): | 1.121 in (28.47 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) | 0.13 Ohm/1000ft (0.43 Ohm/km) | 50 pF/ft (160 pF/m)           | 90 pF/ft (300 pF/m)                             | 36 Ohm                        | 55%                    | 145 Amps per Conductor at 30°C (per NEC) |

Voltage

| UL Voltage Rating             |
|-------------------------------|
| 1000 V (TC, 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. |
|------------------|-------------------|
| 13.5 in (343 mm) | 13.5 in (343 mm)  |

|                    |                              |
|--------------------|------------------------------|
| Max. Pull Tension: | 3222 lbs (1461 kg)           |
| Bulk Cable Weight: | 1193 lbs/1000ft (1775 kg/km) |

Standards and Compliance

|                                 |                                                                                                                           |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Environmental Suitability:      | Indoor, Outdoor, Sunlight Resistance, Oil Resistance, Burial                                                              |
| Sustainability:                 | CA Prop 65                                                                                                                |
| Flammability / Fire Resistance: | UL1685 UL Loading, FT4, IEEE 1202, IEEE 383 Vertical Tray Flame Test (70,000 BTU)                                         |
| NEC / UL Compliance:            | Article 336, TC-ER, XHHW-2                                                                                                |
| AWM Compliance:                 | I/II A/B                                                                                                                  |
| 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)                                                                                           |
| Other Standard Compliance(s):   | P-07-KA070003-MSHA                                                                                                        |

History

|                      |                                                  |
|----------------------|--------------------------------------------------|
| Update and Revision: | Revision Number: 0.427 Revision Date: 10-11-2021 |
|----------------------|--------------------------------------------------|

Variants

| Item #         | Color | Putup Type | Length   | UPC          |
|----------------|-------|------------|----------|--------------|
| 29528C 0103000 | Black | Reel       | 3,000 ft | 612825137894 |

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