



Product: [29521C](#)

VFD, 3C #14 Str BC XLPE Ins + #14 Symm. Seg. Gnd (3 of #18) 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 14AWG (7x22) Bare Copper XLPE Insulation M4 Color Code + 14AWG Symmetrical Segmented Ground (3 of 18AWG) 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; Class 1 Division 2 Hazardous Locations; Recommended Cable Gland Belden BTC075A0551RA
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#### Construction Details

##### Conductor

Element	No. of Elements	Size	Stranding	Material	Notes
Conductor(s)	3	14 AWG	7x22	BC - Bare Copper	ASTM B3 Copper B8 Class B Stranding
Ground Wire	3	18 AWG	7x26	BC - Bare Copper	Segmented Ground 14AWG Total + Copper Tape

##### Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Conductor(s)	XLPE - Cross-Linked Polyethylene (Thermoset)	0.030 in (0.76 mm)	0.131 in (3.33 mm)	ICEA Chart M4
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	0.060 in (1.5 mm)	0.425 in (10.8 mm)	Yes

Overall Cable Diameter (Nominal): 0.425 in (10.8 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)	2.282 Ohm/1000ft	23 pF/ft (75 pF/m)	42 pF/ft (140 pF/m)	80 Ohm	55%	25 Amps per Conductor at 30°C
Ground	1.9 Ohm/1000ft (6.2 Ohm/km)					

##### Voltage

UL Voltage Rating
600 / 1000 V (TC-ER)

#### Mechanical Characteristics

## Temperature

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

## Bend Radius

Stationary Min.	Installation Min.
5.1 in (130 mm)	5.1 in (130 mm)

Max. Pull Tension:	186 lbs (84.4 kg)
Bulk Cable Weight:	134 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
NEC / UL Compliance:	Article 336, TC-ER, XHHW-2
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: 0.709 Revision Date: 04-11-2025
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## Part Numbers

### Variants

Item #	Color	Putup Type	Length	UPC
29521C 0101000	Black	Reel	1,000 ft	612825137641
29521C 0105000	Black	Reel	5,000 ft	612825137658

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