



Product: [29523C](#)

VFD, 3C #10 Str BC XLPE Ins + #10 Symm. Seg. Gnd (3 of #14) Str BC, CTS, Bk 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 10AWG (7x18) Bare Copper XLPE Insulation M4 Color Code + 10AWG Symmetrical Segmented Ground (3 of 14AWG) 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	10 AWG	7x18	BC - Bare Copper	ASTM B3 Copper B8 Class B Stranding
Segmented Ground Wire	3	14 AWG	7x22	BC - Bare Copper	3 Ground Segments Totaling 10+ AWG

##### Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Conductor(s)	XLPE - Cross-Linked Polyethylene (Thermoset)	0.030 in (0.76 mm)	0.172 in (4.37 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)	0.506 in (12.9 mm)	Yes

Overall Cable Diameter (Nominal): 0.506 in (12.9 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)	0.895 Ohm/1000ft	31 pF/ft (100 pF/m)	60 pF/ft (200 pF/m)	44 Ohm	55%	40 Amps per Conductor at 30°C
	0.90 Ohm/1000ft (3.0 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.
6.1 in (150 mm)	6.1 in (150 mm)

Max. Pull Tension:	400 lbs (180 kg)
Bulk Cable Weight:	238 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)
Other Standard Compliance(s):	P-07-KA070003-MSHA

## History

Update and Revision:	Revision Number: 0.683 Revision Date: 04-11-2025
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## Part Numbers

### Variants

Item #	Color	Putup Type	Length	UPC
29523C 0105000	Black	Reel	5,000 ft	612825137702

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