



**Product:** [29522C](#)

VFD, 3C #12 Str BC XLPE Ins + #12 Symm. Seg. Gnd (3 of #16) 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 12AWG (7x20) Bare Copper XLPE Insulation M4 Color Code + 12AWG Symmetrical Segmented Ground (3 of 16AWG) 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
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### Construction Details

#### Conductor

Element	Number of Element	Size	Stranding	Material	Notes
Conductor(s)	3	12 AWG	7x20	BC - Bare Copper	
Ground	3	16 AWG	7x24	BC - Bare Copper	Segmented Grounds

#### Insulation

Element	Material	Nom. Thickness	Color Code
Conductor(s)	XLPE - Cross-Linked Polyethylene (Thermoset)	0.030 in (0.76 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	0.060 in (1.5 mm)	0.460 in (11.7 mm)	Yes

Overall Cable Diameter (Nominal):	0.460 in (11.7 mm)
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### 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)	1.423 Ohm/1000ft (4.669 Ohm/km)	37 pF/ft (120 pF/m)	67 pF/ft (220 pF/m)	50 Ohm	55%	30 Amps per Conductor at 25°C

#### 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.
5.5 in (140 mm)	5.5 in (140 mm)

Max. Pull Tension:	367 lbs (166 kg)
Bulk Cable Weight:	175 lbs/1000ft (260 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, VW-1 (Singles), 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: 0.409 Revision Date: 03-25-2022
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#### Part Numbers

##### Variants

Item #	Color	Putup Type	Length	UPC
29522C 0105000	Black	Reel	5,000 ft	612825137689

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