



**Product:** [29731C](#) 

VFD, 3C #3/0 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 AWM I/II A/B

## Product Description

Belden Basics VFD, 3 Conductor 3/0AWG (19x11) 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 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; High voltage requirements
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### Construction Details

#### Conductor

Element	No. of Elements	Size	Stranding	Material	Notes
Conductor(s)	3	3/0 AWG	19x11	BC - Bare Copper	ASTM B3 Copper B8 Class B Stranding
Ground	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)	0.094 in (2.4 mm)	0.643 in (16.3 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)	1.564 in (39.73 mm)	Yes

Overall Cable Diameter (Nominal):	1.564 in (39.73 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. Inductance	Nom. Velocity of Prop.	Max. Current
Conductor(s)	0.066 Ohm/1000ft (0.22 Ohm/km)	23 pF/ft (75 pF/m)	42 pF/ft (140 pF/m)	80 Ohm	0.138 µH/ft (0.453 µH/m)	55%	225 Amps per Conductor at 30°C

#### Voltage

UL Voltage Rating
2000 V (TC), 1000 V (CSA AWM I/II A/B)

### Mechanical Characteristics

#### Temperature

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

Stationary Min.	Installation Min.
18.8 in (478 mm)	18.8 in (478 mm)

Max. Pull Tension:	6332 lbs (2872 kg)
Bulk Cable Weight:	2227 lbs/1000ft (3314 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, 1202, 383 Vertical Tray Flame Test (70,000 BTU)
NEC / UL Compliance:	Article 336, TC-ER, RHW-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: 0.79 Revision Date: 09-07-2025
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Part Numbers

Variants

Item #	Putup Type	UPC
29731C 0101000	Reel	612825445593
29731C 0102500	Reel	612825445609

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