


Product: [29527C](#)

VFD, 3C #2 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

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Product Description

Belden Basics VFD, 3 Conductor 2AWG (7x10) 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 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
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Construction Details
Conductor

Element	No. of Elements	Size	Stranding	Material	Notes
Conductor(s)	3	2 AWG	7x10	BC - Bare Copper	ASTM B3 Copper B8 Class B Stranding
Segmented Ground Wire	3	10 AWG	7x18	BC - Bare Copper	Segmented Ground (3 Totaling 5AWG)

Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Conductor(s)	XLPE - Cross-Linked Polyethylene (Thermoset)	0.047 in (1.2 mm)	0.377 in (9.58 mm)	IECA 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	0.083 in (2.1 mm)	0.990 in (25.1 mm)	Yes

Overall Cable Diameter (Nominal): 0.990 in (25.1 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)	0.14 Ohm/1000ft (0.46 Ohm/km)	35 pF/ft (110 pF/m)	68 pF/ft (220 pF/m)	44 Ohm	55%	130 Amps per Conductor at 30°C
	0.03 Ohm/1000ft (0.098 Ohm/km)					

Nom Outer Shield DCR: 2.04 Ohm/1000ft (6.69 Ohm/km)

Voltage
UL Voltage Rating

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.
11.9 in (302 mm)	11.9 in (302 mm)

Max. Pull Tension:	2851 lbs (1293 kg)
Bulk Cable Weight:	969 lbs/1000ft (1440 kg/km)

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, 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: 0.721 Revision Date: 01-06-2026
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Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC
29527C 0102000	Black	Reel	2,000 ft	612825137825
29527C 0105000	Black	Reel	5,000 ft	612825137832

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