



**Product:** [29533](#)

VFD, 3C 250MCM 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 22.2 No. 230 TC

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## Product Description

Belden Basics VFD, 3 Conductor 250MCM (37x.0822") 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 22.2 No. 230 TC 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	No. of Elements	Size	Stranding	Material	Notes
Conductor(s)	3	250 MCM	37x0.0822 in.	BC - Bare Copper	
Ground Wire	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)	0.105 in (2.67 mm)	0.768 in (19.5 mm)	ICEA Method 4
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	0.110 in (2.79 mm)	1.912 in (48.56 mm)	Yes

Overall Cable Diameter (Nominal):	1.912 in (48.56 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 Impedence	Nom. Velocity of Prop.	Max. Current
Conductor(s)	0.041 Ohm/1000ft	30 pF/ft (98 pF/m)	54 pF/ft (180 pF/m)	62 Ohm	55%	290 Amps per Conductor at 30°C (per NEC)
	0.68 Ohm/1000ft (2.2 Ohm/km)					55 Amps per Conductor at 25°C

#### Voltage

UL Voltage Rating	Voltage Rating
2000 V (TC, UL44)	1000 V (CSA TC)

### Mechanical Characteristics

## Temperature

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

## Bend Radius

Stationary Min.	Installation Min.
22.9 in (582 mm)	22.9 in (582 mm)

Max. Pull Tension:	1743 lbs (790.6 kg)
Bulk Cable Weight:	3730 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, FT4
NEC / UL Compliance:	Article 336, TC-ER, RHW-2
CEC / C(UL) Compliance:	CSA TC
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: 0.544 Revision Date: 02-03-2025
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## Part Numbers

### Variants

Item #	Color	Putup Type	Length	UPC
29533 0102000	Black	Reel		612825353140
29533 0101500	Black	Reel	1,500 m	612825138334
29533 0102300	Black	Reel	2,300 ft	612825138341

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