


**Product: [29503](#)**

VFD 300% Gnd, 3C+G #10 Str TC, XLPE Ins+PVC Gnd, OS+TC Brd w/#10 TC Drain, Blk PVC Jkt, 600/1000V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable WTTC

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**Product Description**

Belden 300% Ground Flexible VFD, 3 Conductor 10AWG (105x30) Tinned Copper, XLPE Insulation M4 Color Code+PVC Insulated Ground, Overall Beldfoil®+Tinned Copper Braid(85%) Shield w/10AWG Tinned Copper Ground/Drain, Black PVC Outer Jacket, 600/1000V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable WTTC 1000V CSA AWM I/II A/B 600V CIC TC SUN RES DIR BUR Oil Resistant

**Technical Specifications**
**Product Overview**

Suitable Applications: Variable Frequency Drives (VFD); AC Motor and Drive Systems; Recommended Cable Gland Belden BTC100A0791RA

**Construction Details**
**Conductor**

Element	No. of Elements	Size	Stranding	Material
Conductor(s)	3	10 AWG	105x30	TC - Tinned Copper
Insulated Ground	1	10 AWG	105x30	TC - Tinned Copper
Uninsulated Ground Wire	1	10 AWG	105x30	TC - Tinned Copper

**Insulation**

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Conductor(s)	XLPE - Cross-Linked Polyethylene (Thermoset)	0.046 in (1.2 mm)	0.212 in (5.38 mm)	IECA Chart M4
Insulated Ground	PVC - Polyvinyl Chloride	0.046 in (1.2 mm)	0.212 in (5.38 mm)	Green/Yellow Stripe
Uninsulated Ground Wire				

**Outer Shield**

Shield Type	Material	Coverage	Drainwire Type
Tape	Tri-Laminate (Alum+Poly+Alum)	100%	10 AWG (105x30) TC
Braid	Tinned Copper (TC)	85%	

**Outer Jacket**

Material	Nom. Thickness	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.073 in (1.9 mm)	0.690 in (17.5 mm)	Yes

Overall Cable Diameter (Nominal): 0.690 in (17.5 mm)

**Electrical Characteristics**
**Electricals**

Element	Nom. Conductor DCR	Nom. Capacitance Cond-to-Cond	Nom. Capacitance Cond-to-Other (Conds + Shield)	Nom. Characteristic Impedance	Nom. Inductance Cond-Grnd	Nom. Velocity of Prop.	Max. Current	
Conductor(s)	0.969 Ohm/1000ft	23 pF/ft (75 pF/m)	42 pF/ft (140 pF/m)	80 Ohm	0.173 $\mu$ H/ft	55%	40 Amps per Conductor at 30°C (per NEC)	
Insulated Ground	1.080 Ohm/1000ft (3.543 Ohm/km)							
Uninsulated Ground Wire								
Nom Outer Shield DCR:		0.71 Ohm/1000ft (2.3 Ohm/km)						

**Voltage**

UL Voltage Rating	Voltage Rating
1000 V (TC-ER, WTTC, UL44, UL Flexible Motor Supply Cable), 600 V (C(UL) CIC TC)	1000 V (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.
8.3 in (210 mm)	8.3 in (210 mm)

Max. Pull Tension: 762 lbs (346 kg)

Bulk Cable Weight: 353 lbs/1000ft

## Standards and Compliance

Environmental Suitability:	Indoor, Outdoor, Sunlight Resistance, Burial
Sustainability:	CA Prop 65
Flammability / Reaction to Fire:	UL 1685 UL Loading, FT4, IEEE 1202 FT4
NEC / UL Compliance:	Article 336, TC-ER, WTTC, UL Flexible Motor Supply Cable
AWM Compliance:	AWM I/II A/B
CEC / C(UL) Compliance:	CIC, 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)
Other Standard Compliance(s):	P-07-KA070003-MSHA

## History

Update and Revision: Revision Number: 0.650 Revision Date: 09-07-2025

## Part Numbers

### Variants

Item #	Color	Putup Type	Length	UPC	Footnote
29503 010100	Black	Reel	100 ft	612825136880	
29503 010250	Black	Reel	250 ft	612825136910	C Z
29503 010500	Black	Reel	500 ft	612825136941	C Z
29503 0101000	Black	Reel	1,000 ft	612825136897	C Z
29503 0105000	Black	Reel	5,000 ft	612825136958	C Z

Footnote: C - CRATE REEL PUT-UP., Z - FINAL PUT-UP MAY VARY (= OR -) 10% FOR SPOOLS OR REELS AND (+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

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