



Product: [29504](#)

VFD 300% Gnd, 3C+G #8 Str TC, XLPE Ins+PVC Gnd, OS+TC Brd w/4-#14 TC Drains, 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 8AWG (7x19x29) Tinned Copper, XLPE Insulation M4 Color Code+PVC Insulated Ground, Overall Beldfoil®+Tinned Copper Braid(85%) Shield w/4-14AWG Tinned Copper Ground/Drains, 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 BTC125A1041RA
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#### Construction Details

##### Conductor

Element	No. of Elements	Size	Stranding	Material	Notes
Conductor(s)	3	8 AWG	7x19x29	TC - Tinned Copper	
Insulated Ground	1	8 AWG	7x19x29	TC - Tinned Copper	Insulated Ground Wire
Uninsulated Ground Wire	4	14 AWG	41x40	TC - Tinned Copper	Segmented Ground Wire (4 Totaling 8 AWG)

##### Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Conductor(s)	XLP, XLPO, XLPE (Thermoset)	0.062 in (1.6 mm)	0.278 in (7.06 mm)	ICEA Chart M4
Insulated Ground	PVC - Polyvinyl Chloride	0.062 in (1.6 mm)	0.278 in (7.06 mm)	Green/Yellow Stripe
Uninsulated Ground Wire				

##### Outer Shield

Shield Type	Material	Coverage	Drainwire Type
Tape	Tri-Laminate (Alum+Poly+Alum)	100%	14 AWG (41x30) TC
Braid	Tinned Copper (TC)	85%	

##### Outer Jacket

Material	Nom. Thickness	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.095 in (2.4 mm)	0.901 in (22.9 mm)	Yes

Overall Cable Diameter (Nominal):	0.901 in (22.9 mm)
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#### Electrical Characteristics

##### Electricals

Element	Nom. Conductor DCR	Nom. Capacitance Cond-to-Cond	Nom. Capacitance Cond-to-Shield	Nom. Capacitance Cond-to-Other (Conds + Shield)	Nom. Characteristic Impedance	Nom. Inductance Cond-Grnd	Nom. Velocity of Prop.	Max. Current
Conductor(s)	0.599 Ohm/1000ft	26 pF/ft (85 pF/m)	47 pF/ft (150 pF/m)	47 pF/ft (150 pF/m)	71 Ohm	0.17 µH/ft	55%	55 Amps per Conductor at 30°C (per NEC)
Insulated Ground	0.6795 Ohm/1000ft (2.229 Ohm/km)							
Segmented Ground Wire	0.67 Ohm/1000ft (2.2 Ohm/km)							

##### Voltage

UL Voltage Rating	Voltage Rating
1000 V (TC-ER, WTTTC, 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.
10.8 in (274 mm)	10.8 in (274 mm)

Max. Pull Tension:	1011 lbs (458.6 kg)
Bulk Cable Weight:	564 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, WTTTC, 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: 0.657 Revision Date: 06-21-2024
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## Part Numbers

### Variants

Item #	Color	Putup Type	Length	UPC	Footnote
29504 010250	Black	Reel	250 ft	612825137030	C Z
29504 010500	Black	Reel	500 ft	612825137078	C Z
29504 0101000	Black	Reel	1,000 ft	612825137016	C Z
29504 0105000	Black	Reel	5,000 ft	612825137085	C Z

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