



Product: [29529](#)

VFD 100% Gnd, 3C #1/0 Str TC XLPE Ins + #1/0 Symm. Seg. Gnd (3 of #4) Str BC, CTS, Blk PVC Jkt, 600/1000V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable WTTC

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Product Description

Belden 100% Ground Flexible VFD, 3 Conductor 1/0AWG (7x19x21) Tinned Copper XLPE Insulation M4 Color Code + 1/0AWG Symmetrical Segmented Ground (3 of 4AWG) Bare Copper Stranded, Overall Dual Copper Tapes Helically Applied Shield, 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 RW90 TC 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; Recommended Cable Gland Belden BTC150A1501RA
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Construction Details

Conductor

Element	No. of Elements	Size	Stranding	Material	Notes
Conductor(s)	3	1/0 AWG	7x19x21	TC - Tinned Copper	Finely Stranded Tinned Copper Optimized for VFD Use
Segmented Ground Wire	3	4 AWG	7x19x25	BC - Bare Copper	Segmented Grounds (3 Totaling 1/0)

Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Conductor(s)	XLPE - Cross-Linked Polyethylene (Thermoset)	0.057 in (1.4 mm)	0.501 in (12.7 mm)	ICEA Chart M4
Ground Wire	No Insulation			

Outer Shield

Shield Type	Material	Coverage	Notes
Helical Tape	Bare Copper (BC)	100%	2 mil Helical Copper Tape for Crack Resistance and High Frequency Noise Conduction
Helical Tape	Bare Copper (BC)	100%	2 mil Helical Copper Tape for Crack Resistance and High Frequency Noise Conduction

Outer Jacket

Material	Nom. Thickness	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.083 in (2.1 mm)	1.258 in (31.95 mm)	Yes

Overall Cable Diameter (Nominal):	1.258 in (31.95 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. Inductance Cond-Grnd	Nom. Velocity of Prop.	Max. Current
Conductor(s)	0.094 Ohm/1000ft	37 pF/ft (120 pF/m)	67 pF/ft (220 pF/m)	50 Ohm	0.072 µH/ft	55%	170 Amps per Conductor at 30°C
Segmented Ground Wire	0.09 Ohm/1000ft (0.30 Ohm/km)						

Voltage

UL Voltage Rating
1000 V (TC, WTTC, UL44, UL Flexible Motor Supply Cable), 600 V (C(UL) CIC TC)

Mechanical Characteristics

Temperature

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

Bend Radius

Stationary Min.	Installation Min.
15.1 in (384 mm)	15.1 in (384 mm)

Max. Pull Tension:	5530 lbs (2510 kg)
Bulk Cable Weight:	1708 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, XHHW-2, UL Flexible Motor Supply Cable
CEC / C(UL) Compliance:	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: 0.662 Revision Date: 02-03-2025
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Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC	Footnote
29529 010500	Black	Reel	500 ft	612825137986	C 9
29529 0102000	Black	Reel	2,000 ft	612825137955	C Z
29529 0102500	Black	Reel	2,500 ft	612825137979	C Z

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