



Product: [29505](#) 

VFD 300% Gnd, 3C+G #6 Str TC, XLPE Ins+PVC Gnd, OS+TC Brd w/4-#12 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 6AWG (7x19x27) Tinned Copper, XLPE Insulation M4 Color Code+PVC Insulated Ground, Overall Beldfoil®+Tinned Copper Braid(85%) Shield w/4-12AWG 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 BTC125A1271RA
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Construction Details

Conductor

Element	No. of Elements	Size	Stranding	Material	Notes
Conductor(s)	3	6 AWG	7x19x27	TC - Tinned Copper	
Insulated Ground	1	6 AWG	7x19x27	TC - Tinned Copper	
Uninsulated Ground Wire	4	12 AWG	65x30	TC - Tinned Copper	Segmented Ground Wire (4 Totalling 6 AWG)

Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Conductor(s)	XLPE - Cross-Linked Polyethylene (Thermoset)	0.062 in (1.6 mm)	0.319 in (8.10 mm)	ICEA Chart M4
Insulated Ground	PVC - Polyvinyl Chloride	0.062 in (1.6 mm)	0.319 in (8.10 mm)	Green/Yellow Stripe
Uninsulated Ground Wire				

Outer Shield

Shield Type	Material	Coverage	Drainwire Type
Tape	Tri-Laminate (Alum+Poly+Alum)	100%	12 AWG (65x30) TC
Braid	Tinned Copper (TC)	85%	

Outer Jacket

Material	Nom. Thickness	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.095 in (2.4 mm)	1.002 in (25.45 mm)	Yes

Overall Cable Diameter (Nominal):	1.002 in (25.45 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 Impedance	Nom. Inductance Cond-Grnd	Nom. Velocity of Prop.	Max. Current
Conductor(s)	0.379 Ohm/1000ft	32 pF/ft (100 pF/m)	60 pF/ft (200 pF/m)	37 Ohm	0.14 µH/ft	55%	75 Amps per Conductor at 30°C
Insulated Ground	0.379 Ohm/1000ft (1.24 Ohm/km)						
Uninsulated Ground Wire	0.385 Ohm/1000ft (1.26 Ohm/km)						

Nom Outer Shield DCR@Cond DCR1-cnrv: 0.4 Ohm/1000ft (1.3 Ohm/km)
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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.
12.0 in (305 mm)	12.0 in (305 mm)

Max. Pull Tension:	1562 lbs (708.5 kg)
Bulk Cable Weight:	793 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor, Outdoor, Sunlight Resistance, Burial
Sustainability:	CA Prop 65
Flammability / Reaction to Fire:	UL 1685 FT4 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: 0.660 Revision Date: 09-07-2025
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Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC	Footnote
29505 010250	Black	Reel	250 ft	612825137177	C Z
29505 0101000	Black	Reel	1,000 ft	612825137139	C Z
29505 0103500	Black	Reel	3,500 ft	612825137184	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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