



Product: [29502](#) 

VFD 300% Gnd, 3C+G #12 Str TC, XLPE Ins+PVC Gnd, OS+TC Brd w/#12 TC Ground/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 12AWG (65x30) Tinned Copper, XLPE Insulation M4 Color Code+PVC Insulated Ground, Overall Beldfoil®+Tinned Copper Braid(85%) Shield w/12AWG 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;Class 1 Division 2 Hazardous Locations: Recommended Cable Gland Belden BTC100A0791RA
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Construction Details

Conductor

Element	No. of Elements	Size	Stranding	Material
Conductor(s)	3	12 AWG	65x30	TC - Tinned Copper
Insulated Ground	1	12 AWG	65x30	TC - Tinned Copper
Uninsulated Ground Wire	1	12 AWG	65x30	TC - Tinned Copper

Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Conductor(s)	XLPE - Cross Linked Polyethylene	0.046 in (1.2 mm)	0.187 in (4.75 mm)	ICEA Chart M4
Insulated Ground	PVC - Polyvinyl Chloride	0.047 in (1.2 mm)	0.187 in (4.75 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	0.073 in (1.9 mm)	0.630 in (16.0 mm)	Yes

Overall Cable Diameter (Nominal): 0.630 in (16.0 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)	1.566 Ohm/1000ft (5.138 Ohm/km)	26 pF/ft (85 pF/m)	47 pF/ft (150 pF/m)	71 Ohm	.18 µH/ft	55%	30 Amps per Conductor at 30°C
Insulated Ground	1.60 Ohm/1000ft (5.25 Ohm/km)						
Uninsulated Ground Wire	1.56 Ohm/1000ft (5.12 Ohm/km)						
Nom Outer Shield DCR:		0.84 Ohm/1000ft (2.8 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.
6.3 in (160 mm)	7.6 in (190 mm)

Max. Pull Tension:	502 lbs (228 kg)
Bulk Cable Weight:	277 lbs/1000ft (412 kg/km)

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, 1000V UL Flexible Motor Supply Cable, RHW-2 Singles, XHHW-2 Singles
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: 0.730 Revision Date: 06-30-2026
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Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC	Footnote
29502 010100	Black	Reel	100 ft	612825136743	
29502 010250	Black	Reel	250 ft	612825136781	C Z
29502 010500	Black	Reel	500 ft	612825136804	C Z
29502 0101000	Black	Reel	1,000 ft	612825136750	C Z
29502 0105000	Black	Reel	5,000 ft	612825136811	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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