



Product: [29528](#)

VFD 100% Gnd, 3C #1 Str TC XLPE Ins + #1 Symm. Seg. Gnd (3 of #6) 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 1AWG (7x19x22) Tinned Copper XLPE Insulation M4 Color Code + 1AWG Symmetrical Segmented Ground (3 of 6AWG) 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 BTC125A1271RA
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Construction Details

Conductor

Element	No. of Elements	Size	Stranding	Material	Notes
Conductor(s)	3	1 AWG	7x19x22	TC - Tinned Copper	
Segmented Ground Wire	3	6 AWG	7x19x27	BC - Bare Copper	Segmented Grounds (3 Totaling 1 AWG)

Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Conductor(s)	XLPE - Cross-Linked Polyethylene (Thermoset)	0.057 in (1.4 mm)	0.472 in (12.0 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)	1.195 in (30.35 mm)	Yes

Overall Cable Diameter (Nominal):	1.195 in (30.35 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)	0.118 Ohm/1000ft	34 pF/ft (110 pF/m)	61 pF/ft (200 pF/m)	37 Ohm	0.087 µH/ft	55%	145 Amps per Conductor at 30°C
Segmented Ground Wire	0.128 Ohm/1000ft (0.420 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.
14.3 in (363 mm)	14.3 in (363 mm)

Max. Pull Tension:	4304 lbs (1952 kg)
Bulk Cable Weight:	1395 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, 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: 0.645 Revision Date: 06-20-2024
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Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC	Footnote
29528 0103000	Black	Reel	3,000 ft	612825137863	C Z

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