



Product: [29528F](#)

VFD 100% Gnd, 3C #1 Str TC XLPE Ins + #1 Symm. Seg. Gnd (3 of #6) Str TC CTS, Blk TPE Jkt, 600/1000V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable WTTC

[Request Sample](#)

Product Description

Belden 100% Ground Extra Flexible VFD, 3 Conductor 1AWG (19x44x30) Tinned Copper XLPE Insulation M4 Color Code + 1AWG Symmetrical Segmented Ground (3 of 6AWG) Tinned Copper Stranded, Overall Dual Copper Tapes Helically Applied Shield, Black TPE Outer Jacket, 600/1000V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable 1000V WTTC 600V CIC TC SUN RES OIL RES II DIR BUR

Technical Specifications

Product Overview

Suitable Applications:	Variable Frequency Drives (VFD); AC Motor and Drive Systems, Exposure to high flex, motion, and abrasion, Hard to reach installation areas
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Construction Details

Conductor

Element	No. of Elements	Size	Stranding	Material	Notes
Conductor(s)	3	1 AWG	19x44x30	TC - Tinned Copper	
Ground	3	6 AWG	7x37x30	TC - Tinned Copper	Segmented Grounds

Insulation

Element	Material	Nom. Thickness	Color Code
Conductor(s)	XLPE - Cross-Linked Polyethylene (Thermoset)	0.057 in (1.4 mm)	Black and Numbered
Ground	No Insulation		

Outer Shield

Shield Type	Material	Coverage
Helical Tape	Bare Copper (BC)	100%
Helical Tape	Bare Copper (BC)	100%

Outer Jacket

Material	Nom. Thickness	Nom. Diameter	Ripcord
TPE - Thermoplastic Elastomer	0.083 in (2.1 mm)	1.243 in (31.57 mm)	Yes

Overall Cable Diameter (Nominal):	1.243 in (31.57 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. Velocity of Prop.	Max. Current
Conductor(s)	0.122 Ohm/1000ft (0.400 Ohm/km)	26 pF/ft (85 pF/m)	47 pF/ft (150 pF/m)	71 Ohm	55%	145 Amps per Conductor at 30°C (per NEC)

Voltage

UL Voltage Rating
1000 V (TC, WTTC, 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.	Flexing Min.
6.2 in (160 mm)	14.9 in (378 mm)	14.9 in (378 mm)

Max. Pull Tension:	2650 lbs (1200 kg)
Bulk Cable Weight:	1406 lbs/1000ft (2092 kg/km)

Standards and Compliance

Environmental Suitability:	Indoor, Outdoor, Sunlight Resistance, Oil Resistance, Burial
Sustainability:	CA Prop 65
Flammability / Reaction to Fire:	UL1685 UL Loading, FT4, 1202, 383 Vertical Tray Flame Test (70,000 BTU)
NEC / UL Compliance:	Article 336, TC-ER, WTTC, XHHW-2, UL Flexible Motor Supply Cable
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)

History

Update and Revision:	Revision Number: 0.297 Revision Date: 12-22-2023
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Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC
29528F 0103000	Black	Reel	3,000 ft	612825373384

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