



Product: [29531T](#)

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

Product Description

Belden 100% Ground Flexible VFD, 3 Conductor 3/0AWG (7x19x19) Tinned Copper XLPE Insulation M4 Color Code + 3/0AWG Symmetrically Segmented Ground (3 of 4AWG+) Bare Copper Stranded, Overall Dual Copper Tapes Helically Applied Shield, Black LSZH Outer Jacket, 600/1000V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable WTTC SUN RES DIR BUR Oil Resistant

Technical Specifications

Product Overview

Suitable Applications:	Variable Frequency Drives (VFD); AC Motor and Drive Systems; Human safety applications with flame or toxicity concerns (low smoke, zero halogen); Class 1 Division 2 Hazardous Locations
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Construction Details

Conductor

Element	No. of Elements	Size	Stranding	Material	Notes
Conductor(s)	3	3/0 AWG	19x7x19	TC - Tinned Copper	
Ground	3	4 AWG	7x19x25	BC - Bare 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
LSZH - Low Smoke Zero Halogen (Flame Retardant)	0.083 in (2.1 mm)	1.480 in (37.59 mm)	Yes

Overall Cable Diameter (Nominal):	1.480 in (37.59 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)	0.059 Ohm/1000ft (0.19 Ohm/km)	50 pF/ft (160 pF/m)	90 pF/ft (300 pF/m)	36 Ohm	55%	225 Amps per Conductor at 30°C

Voltage

UL Voltage Rating
1000 V (TC, WTTC, UL Flexible Motor Supply Cable)

Mechanical Characteristics

Temperature

UL Temperature	Operating
90°C Dry, 90°C Wet	-25°C To +90°C

Bend Radius

Stationary Min.	Installation Min.
17.8 in (452 mm)	17.8 in (452 mm)

Max. Pull Tension:	7820 lbs (3550 kg)
Bulk Cable Weight:	2565 lbs/1000ft (3817 kg/km)

Standards and Compliance

Environmental Suitability:	Indoor, Outdoor, Sunlight Resistance, Oil Resistance, Burial
Sustainability:	CA Prop 65
Flammability / Reaction to Fire:	UL1685 FT4 Loading
NEC / UL Compliance:	Article 336, TC-ER, WTTTC, UL Flexible Motor Supply Cable
ICEA Compliance:	S-95-658
APAC Compliance:	China RoHS II (GB/T 26572-2011)

History

Update and Revision:	Revision Number: 0.374 Revision Date: 04-11-2025
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Part Numbers

Variants

Item #	Color	Putup Type	UPC
29531T 0101000	Black	Reel	612825138228
29531T 0102000	Black	Reel	612825138235

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