



Product: [29511](#)

VFD 300% Gnd, 3C+G #14 Str TC, XLPE Ins+PVC Gnd, OS+TC Brd, 1 Pr #16 Str TC XLPE IS, Blk PVC Jkt, 600V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable

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Product Description

Belden 300% Ground Flexible VFD, 3 Conductor 14AWG (41x30) Tinned Copper, XLPE Insulation M4 Color Code+PVC Insulated Ground, Overall Beldfoil®+Tinned Copper Braid(85%) Shield, 1 Pair 16AWG (26x30) Tinned Copper XLPE Beldfoil, Black PVC Outer Jacket, 600V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable 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
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Construction Details

Conductor

Element	No. of Elements	Size	Stranding	Material	Notes
Conductor(s)	3	14 AWG	41x30	TC - Tinned Copper	
Pair(s)	1	16 AWG	26x30	TC - Tinned Copper	Used as control or brake pair
Ground Wire	1	14 AWG	41x30	TC - Tinned Copper	

Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Conductor(s)	XLPO - Crosslink Polyolefin	0.046 in (1.2 mm)	0.173 in (4.39 mm)	ICEA Chart M4
Pair(s)	XLPO - Crosslink Polyolefin	0.032 in (0.81 mm)	0.123 in (3.12 mm)	Black & White
Ground Wire	PVC - Polyvinyl Chloride	0.047 in (1.2 mm)	0.169 in (4.29 mm)	Green/Yellow Stripe

Inner Shield

Element	Shield Type	Material	Coverage	Drainwire Type	Notes
Pair(s)	Tape	Bi-Laminate (Alum+Poly)	100%	18 AWG (19x30) TC	Foil-In, Shorting fold

Outer Shield

Shield Type	Material	Coverage	Drainwire Type
Tape	Tri-Laminate (Alum+Poly+Alum)	100%	14 AWG (41x30) TC
Braid	Tinned Copper (TC)	85%	

Table Notes:	Foil+braid shield on power conductors & Ground only; extra pair has own foil shield.
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Outer Jacket

Material	Nom. Thickness	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.075 in (1.9 mm)	0.820 in (20.8 mm)	Yes

Overall Cable Diameter (Nominal):	0.820 in (20.8 mm)
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Electrical Characteristics

Electricals

Element	Nom. Conductor DCR	Nom. Inner Shield DCR	Nom. Capacitance Cond-to-Cond	Nom. Capacitance Cond-to-Shield	Nom. Capacitance Cond-to-Other (Conds + Shield)	Nom. Characteristic Impedence	Nom. Velocity of Prop.	Max. Current
Conductor(s)	2.482 Ohm/1000ft		48 pF/ft (160 pF/m)	42 pF/ft (140 pF/m)	86 pF/ft (280 pF/m)	37 Ohm	55%	20 Amps per Conductor at 30°C

Pair(s)	4.0 Ohm/1000ft (13 Ohm/km)	4.99 Ohm/1000ft (16.4 Ohm/km)	34 pF/ft (110 pF/m)				25 Amps per Conductor at 30°C (per NEC)
Ground	2.52 Ohm/1000ft (8.27 Ohm/km)		23 pF/ft (75 pF/m)	42 pF/ft (140 pF/m)			25 Amps per Conductor at 30°C (per NEC)

Voltage

UL Voltage Rating	Voltage Rating
1000 V (UL Flexible Motor Supply Cable), 600 V (TC, C(UL) 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.
9.8 in (250 mm)	9.8 in (250 mm)

Max. Pull Tension:	441 lbs (200 kg)
Bulk Cable Weight:	275 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor, Outdoor, Sunlight Resistance, Burial
Sustainability:	CA Prop 65
Flammability / Reaction to Fire:	UL 1685 UL Loading, FT4, IEEE 1202 FT4
NEC / UL Compliance:	Article 336, Article 310, TC-ER, RHW-2, 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: 0.643 Revision Date: 06-19-2024
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Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC	Footnote
29511 010100	Black	Reel	100 ft	612825137481	C
29511 010500	Black	Reel	500 ft	612825137504	C
29511 0101000	Black	Reel	1,000 ft	612825137498	C
29511 0105000	Black	Reel	5,000 ft	612825137511	C

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