



**Product:** [29510](#)

VFD 300% Gnd, 3C+G #16 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

[Request Sample](#)

## Product Description

Belden 300% Ground Flexible VFD, 3 Conductor 16AWG (26x30) 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
------------------------	---

### Construction Details

#### Conductor

Element	Number of Element	Size	Stranding	Material	Notes
Conductor(s)	3	16 AWG	26x30	TC - Tinned Copper	
Pair(s)	1	16 AWG	26x30	TC - Tinned Copper	Used as control or brake pair
Ground Wire	1	16 AWG	26x30	TC - Tinned Copper	

#### Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Conductor(s)	XLPO - Crosslink Polyolefin	0.046 in (1.2 mm)	0.153 in (3.89 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)	0.153 in (3.89 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%	16 AWG (26x30) TC
Braid	Tinned Copper (TC)	85%	

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

#### Outer Jacket

Separator	Material	Nom. Thickness	Nom. Diameter	Ripcord
Polyester Tape	PVC - Polyvinyl Chloride	0.075 in (1.9 mm)	0.750 in (19.1 mm)	Yes

Overall Cable Diameter (Nominal):	0.750 in (19.1 mm)
-----------------------------------	--------------------

### 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 Impedance	Nom. Velocity of Prop.	Max. Current
Conductor(s)	3.914 Ohm/1000ft		46 pF/ft (150 pF/m)	38 pF/ft (120 pF/m)	83 pF/ft (270 pF/m)	37 Ohm	55%	14.4 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)				18 Amps per Conductor at 30°C (per NEC)
Ground	4.45 Ohm/1000ft (14.6 Ohm/km)						18 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.
9.0 in (230 mm)	9.0 in (230 mm)

Max. Pull Tension:	336 lbs (152 kg)
Bulk Cable Weight:	259 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, FT4, IEEE 1202 FT4
NEC / UL Compliance:	Article 336, TC-ER, 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: 0.527 Revision Date: 07-15-2022
----------------------	--

### Part Numbers

#### Variants

Item #	Color	Putup Type	Length	UPC
29510 010100	Black	Reel	100 ft	612825137443
29510 010500	Black	Reel	500 ft	612825137467
29510 0101000	Black	Reel	1,000 ft	612825137450
29510 0105000	Black	Reel	5,000 ft	612825137474

© 2022 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.