



**Product:** [29512](#)

VFD 300% Gnd, 3C+G #12 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 12AWG (65x30) 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	AWG	Stranding	Material	Notes
Conductor(s)	3	12	65x30	TC - Tinned Copper	
Pair(s)	1	16	26x30	TC - Tinned Copper	Used as control or brake pair
Ground	1	12	65x30	TC - Tinned Copper	

#### Insulation

Element	Material	Thickness	Color Code
Conductor(s)	XLPE - Cross-Linked Polyethylene (Thermoset)	0.046 in	Black and Numbered
Pair(s)	XLPE - Cross-Linked Polyethylene (Thermoset)	0.032 in	Black, White
Ground	PVC - Polyvinyl Chloride	0.047 in	Green/Yellow Stripe

#### Inner Shield Material

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 Material

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

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

#### Outer Jacket Material

Material	Thickness	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.080 in	0.895 in	Yes

Cable Diameter (Nominal): 0.895 in

### 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)	Characteristic Impedance	Nom. Velocity of Prop.	Max. Current
Conductor(s)	0.079 Ohm/1000ft	4.99 Ohm/1000ft	46 pF/ft	47 pF/ft	83 pF/ft	37 Ohm	0.55%	30 Amps per Conductor at 30°C (per NEC)
Pair(s)	4 Ohm/1000ft	4.99 Ohm/1000ft	34 pF/ft					

Ground	1.6 Ohm/1000ft	26 pF/ft	47 pF/ft				
--------	----------------	----------	----------	--	--	--	--

#### Voltage

UL Voltage Rating
600 V (TC, C(UL) TC), 1000 V (UL Flexible Motor Supply Cable, CSA AWM I/II A/B)

### Mechanical Characteristics

#### Temperature

UL Rating	Operating
90°C Dry, 90°C Wet	-40°C To +90°C

#### Bend Radius

Stationary Min.	Installation Min.
9 in	10.7 in

Max. Pull Tension:	538 lbs
Bulk Cable Weight:	373 lbs/1000ft

### Standards and Compliance

Environmental Suitability:	Indoor, Outdoor, Sunlight Resistance, Oil Resistance, Burial
Sustainability:	CA Prop 65
Flammability / Fire Resistance:	UL1685 UL Loading, FT4, FT4, 1202, 383 Vertical Tray Flame Test (70,000 BTU)
NEC / UL Compliance:	Article 336, TC-ER, RHW-2, UL Flexible Motor Supply Cable
AWM Compliance:	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, EU Directive 2011/65/EU (ROHS II), 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: 0.396 Revision Date: 09-30-2020
----------------------	--

© 2020 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.