



**Product:** [29502](#)

VFD 300% Gnd, 3C+G #12 Str TC,XLPE Ins+PVC Gnd, OS+TC Brd w/#12 TC Drain, 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 w/12AWG Tinned Copper Drain, 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:	AC Motor drives, VFD, Variable Frequency drives
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### Physical Characteristics (Overall)

#### Conductor

Element	AWG	Stranding	Material	No. of Conductors
Conductor	12	65x30	TC - Tinned Copper	3
Ground	12	65x30	TC - Tinned Copper	1

Conductor Count:	3
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#### Insulation

Material	Nominal Wall Thickness
XLPE, XLPO, XLPE (Thermoset)	0.045 in
PVC - Polyvinyl Chloride	

#### Color Chart

Number	Color
1	Black and Numbered 1
2	Black and Numbered 2
3	Black and Numbered 3
4	Green/Yellow

#### Outer Shield Material

Type	Layer	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG
Tape	1	Alum / Poly / Alum	Duofoil®	100%	TC - Tinned Copper	12
Braid	2	Tinned Copper (TC)		85%		

#### Outer Jacket Material

Material	Nominal Diameter	Nominal Wall Thickness
PVC - Polyvinyl Chloride	0.63 in	0.073 in

### Electrical Characteristics

#### Conductor DCR

Nominal Conductor DCR
1.6 Ohm/1000ft

#### Capacitance

Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Other Conductor to Shield
26 pF/ft	47 pF/ft

#### Inductance

Nominal Inductance
0.197 $\mu$ H/ft

#### Impedance

Nominal Characteristic Impedance
71 Ohm

#### Current

Max. Recommended Current [A]
30 Amps per Conductor at 30°C (per NEC)

#### Voltage

Description	UL Voltage Rating	Voltage Rating [V]
CSA AWM I/II A/B	1000 V RMS (Flexible Motor Supply Cable)	1000 V RMS (CSA AWM I/II A/B)
	600 V RMS (Type TC)	

#### Temperature Range

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

#### Mechanical Characteristics

Bulk Cable Weight:	250 lbs/1000ft
Max. Pull Tension:	336 lbs
Min Bend Radius/Minor Axis:	6.3 in

#### Standards

NEC Articles:	Article 336
NEC/(UL) Compliance:	TC-ER, RHW-2, WTTTC
CEC/C(UL) Compliance:	600V Type CIC TC
CSA AWM Compliance:	1000 V AWM I/II A/B
PMSHA Compliance:	P-07-KA070003
Other Compliance:	1000V UL Flexible Motor Supply Cable

#### Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2005-10-13
MII Order #39 (China RoHS):	Yes

#### Suitability

Suitability - Burial:	Yes
Suitability - Indoor:	Yes
Suitability - Oil Resistance:	Yes
Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	Yes

#### Flammability, LSOH, Toxicity Testing

UL Flammability:	UL1685 UL Loading
CSA Flammability:	FT4

IEEE Flammability:	1202
UL voltage rating:	1000 V RMS (Flexible Motor Supply Cable)

## Part Number

### Variants

Item #	Color	Putup Type	Length	UPC
29502 010100	Black	Reel	100 ft	612825136743
29502 010250	Black	Reel	250 ft	612825136781
29502 010500	Black	Reel	500 ft	612825136804
29502 0101000	Black	Reel	1,000 ft	612825136750
29502 0105000	Black	Reel	5,000 ft	612825136811

Footnote:	C - CRATE REEL PUT-UP.
Footnote:	Z - FINAL PUT-UP MAY VARY (= OR -) 10% FOR SPOOLS OR REELS AND (+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

## History

Update and Revision:	Revision Number: 0.351 Revision Date: 06-08-2020
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