



**Product:** [29505](#)

VFD 300% Gnd, 3C+G #6 Str TC, XLPE Ins+PVC Gnd, OS+TC Brd w/4-#12 TC Drains, 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 6AWG (7x19x27) Tinned Copper, XLPE Insulation M4 Color Code+PVC Insulated Ground, Overall Beldfoil®+Tinned Copper Braid(85%) Shield w/4-12AWG Tinned Copper Drains, 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	6	7x19x27	TC - Tinned Copper	3
Ground	6	7x19x27	TC - Tinned Copper	1

Conductor Count:	3
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#### Insulation

Material	Nominal Wall Thickness
XLP, XLPO, XLPE (Thermoset)	0.062 in
PVC - Polyvinyl Chloride	0.062 in

#### 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 (4x)
Braid	2	TC - Tinned Copper		85 %		

#### Outer Jacket Material

Material	Nominal Diameter	Nominal Wall Thickness
PVC - Polyvinyl Chloride	1.002 in	0.095 in

### Electrical Characteristics

#### Conductor DCR

Nominal Conductor DCR
0.41 Ohm/1000ft

#### Capacitance

Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Other Conductor to Shield
33 pF/ft	60 pF/ft

#### Inductance

Nominal Inductance
0.171 $\mu$ H/ft

#### Impedance

Nominal Characteristic Impedance
56 Ohm

#### Current

Max. Recommended Current [A]
75 Amps per conductor @ 30°C

#### Voltage

Description	UL Voltage Rating
CSA AWM I/II A/B	1000 V RMS
	600 V RMS (Type TC)

#### Temperature Range

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

#### Mechanical Characteristics

Oil Resistance:	Yes
Bulk Cable Weight:	811 lbs/1000ft
Max Recommended Pulling Tension:	1220 lbs
Min Bend Radius/Minor Axis:	8.25 in

#### Standards

NEC Articles:	336 - ER
NEC/(UL) Specification:	TC-ER, RHW-2, WTTC
CEC/C(UL) Specification:	CIC, TC
CSA AWM Specification:	AWM I/II A/B
PMSHA Specification:	P-07-KA070003
Other Specification:	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
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CSA Flammability:	FT4
IEEE Flammability:	1202, 383
UL voltage rating:	1000 V RMS (Flexible Motor Supply Cable)

## Part Number

### Variants

Item #	Color	Putup Type	Length	UPC
29505 010250	Black	Reel	250 ft	612825137177
29505 0101000	Black	Reel	1,000 ft	612825137139
29505 0103500	Black	Reel	3,500 ft	612825137184

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: 0.352 Revision Date: 04-28-2020
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