



Product: [29503](#)

VFD 300% Gnd, 3C+G #10 Str TC, XLPE Ins+PVC Gnd, OS+TC Brd w/#10 TC Drain, 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 10AWG (105x30) Tinned Copper, XLPE Insulation M4 Color Code+PVC Insulated Ground, Overall Beldfoil®+Tinned Copper Braid(85%) Shield w/10AWG 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	10	105x30	TC - Tinned Copper	3
Ground	10	105x30	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	0.045 in

Outer Shield Material

Type	Layer	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG
Tape	1	Alum / Poly / Alum	Duofoil®	100 %	TC - Tinned Copper	10
Braid	2	TC - Tinned Copper		85 %		

Outer Jacket Material

Material	Nominal Diameter	Nominal Wall Thickness
PVC - Polyvinyl Chloride	0.69 in	0.073 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR
0.988 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Other Conductor to Shield
29 pF/ft	53 pF/ft

Inductance

Nominal Inductance
0.184 µH/ft

Impedance

Nominal Characteristic Impedance

63 Ohm

Current**Max. Recommended Current [A]**

40 Amps per conductor @ 30°C (per NEC)

Voltage

UL Voltage Rating	Voltage Rating [V]
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/Dry
Wet Temp Range:	-40°C To +90 °C
Dry Temp Range:	-40°C To +90 °C

Mechanical Characteristics

Bulk Cable Weight:	350 lbs/1000ft
Max Recommended Pulling Tension:	592 lbs
Min Bend Radius/Minor Axis:	5.5 in

Standards

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

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, LS0H, Toxicity Testing

UL Flammability:	UL1685 UL Loading
CSA Flammability:	FT4
IEEE Flammability:	1202, 383 Vertical Tray Flame Test (70,000 BTU)
UL voltage rating:	1000 V RMS (Flexible Motor Supply Cable)

Part Number**Variants**

Item #	Color	Putup Type	Length	UPC
29503 010100	Black	Reel	100 ft	612825136880

29503 010250	Black	Reel	250 ft	612825136910
29503 010500	Black	Reel	500 ft	612825136941
29503 0101000	Black	Reel	1,000 ft	612825136897
29503 0105000	Black	Reel	5,000 ft	612825136958

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: 0.345 Revision Date: 04-28-2020
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