



Part Number: 29503

VFD 300% Gnd, 3+IG C #10 Str TC, XLPO+PVC Ins M4, OS+TC Brd, 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+IG Conductor 10AWG (105x30) Tinned Copper, XLPO+PVC Insulation M4 Color Code, Overall Beldfoil®+Tinned Copper Braid(85%) Shield, 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 OIL RES DIR BUR

Technical Specifications

Product Overview

Suitable Applications: AC Motor drives, VFD, Variable Frequency drives

Physical Characteristics (Overall)

Conductor

Element	AWG	Stranding	Material	No. of Conductors
	10	105x30	TC - Tinned Copper	3
Ground Wire	10	105x30	TC - Tinned Copper	

Conductor Count: 3

Conductor Size: 10 AWG

Insulation

Material	Nominal Wall Thickness
PVC - Polyvinyl Chloride	0.045 in
XLP - Cross Linked Polyolefin	0.045 in

Outer Shield Material

Type	Layer	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	1	Aluminum/Polyester	Duofoil®	100 %	TC - Tinned Copper	10	105x30 mm
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 (NEC Type TC)	

Temperature Range

UL Temp Rating:	90°C Wet/Dry
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
CA Prop 65 (CJ for Wire & Cable):	Yes
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	Footnote
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29503 010100	Black	
29503 0101000	Black	C Z
29503 010250	Black	C Z
29503 010500	Black	C Z
29503 0105000	Black	C Z

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.

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