



Product: 29531F

VFD 100% Gnd, 3C #3/0 Str TC XLPO Ins + #3/0 Symm. Seg. Gnd (3 of #4+) Str TC, CTS, Blk TPE Jkt, 600V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable 1000V WTTC

[Request Sample](#)

Product Description

Belden 100% Ground Extra Flexible VFD, 3 Conductor 3/0AWG (7x7x31x30) Tinned Copper XLPO Insulation M4 Color Code + 3/0AWG Symmetrical Segmented Ground (3 of 4AWG+) Tinned Copper Stranded, Overall Dual Copper Tapes Helically Applied Shield, Black TPE Outer Jacket, 600V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable 1000V WTTC 600V CIC TC SUN RES OIL RES I&II DIR BUR

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
	3/0 AWG	7x19x19	TC - Tinned Copper	3
Segmented Ground Wire	4	7x60	TC - Tinned Copper	3
Conductor Count:				3

Insulation

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

Color Chart

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

Outer Shield Material

Type	Layer	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG
Tape	1	Aluminum/Polyester	Duofoil®	100 %	TC - Tinned Copper	14
Braid	2	TC - Tinned Copper		85.0 %		

Outer Jacket Material

Material	Nominal Diameter	Nominal Wall Thickness
PVC - Polyvinyl Chloride	1.620 in	0.083 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR
2.52 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Other Conductor to Shield
23 pF/ft	42 pF/ft

Inductance

Nominal Inductance
0.213 µH/ft

Impedance

Nominal Characteristic Impedance
80 Ohm

Current

Max. Recommended Current [A]
25 Amps per conductor @ 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)

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

Mechanical Characteristics

Oil Resistance:	Yes - Oil Res II
Bulk Cable Weight:	190 lbs/1000ft
Max Recommended Pulling Tension:	212 lbs
Min Bend Radius/Minor Axis:	4.8 in

Standards

NEC Articles:	336 - ER
NEC/(UL) Specification:	TC-ER, WTTC, XHHW-2
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 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
CA Prop 65 (CJ for Wire & Cable):	Yes

Suitability

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

Flammability, LS0H, Toxicity Testing

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

Part Number

Variants

Item #	Color	UPC	Length
29531F 0101000	Black	612825373490	1,000 ft
29531F 0102000	Black	612825373506	2,000 ft

History

Update and Revision:	Revision Number: 0.123 Revision Date: 09-10-2019
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