



Product: [29502F](#)

VFD 300% Gnd, 3C+G #12 Str TC, XLPE Ins+PVC Gnd, OS+TC Brd w/#12 TC Drain, Blk TPE Jkt, 600V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable

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Product Description

Belden 300% Ground Extra Flexible VFD, 3 Conductor 12AWG (7x24x34) Tinned Copper, XLPE Insulation M4 Color Code+PVC Insulated Ground, Overall Beldfoil®+Tinned Copper Braid(85%) Shield w/12AWG TC Drain, 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
Conductor	12	7x24x34	TC - Tinned Copper	3
Ground	12	7x24x34	TC - Tinned Copper	1

Conductor Count:	3
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Insulation

Material	Nominal Wall Thickness
XLP, XLPO, XLPE (Thermoset)	0.045 in
PVC - Polyvinyl Chloride	0.045 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
Braid	2	Tinned Copper (TC)		85%		

Outer Jacket Material

Material	Nominal Diameter	Nominal Wall Thickness
TPE - Thermoplastic Elastomer	0.661 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 µH/ft

Impedance

Nominal Characteristic Impedance
71 Ohm

Current

Max. Recommended Current [A]
30 Amps per conductor @ 30°C (per NEC)

Voltage

UL Voltage Rating
1000 V RMS (Flexible Motor Supply Cable)

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

Bulk Cable Weight:	250 lbs/1000ft
Max. Pull Tension:	336 lbs
Min Bend Radius (Continuous Flexing):	5 in
Min Bend Radius/Minor Axis:	3.3 in

Standards

NEC Articles:	Article 336
NEC/(UL) Compliance:	TC-ER, WTTC, XHHW-2
CEC/C(UL) Compliance:	600V Type CIC TC
Other Compliance:	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

Suitability

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, 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	UPC
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29502F 0101000	Black	Reel	612825367208
29502F 0105000	Black	Reel	612825367215

History

Update and Revision:	Revision Number: 0.244 Revision Date: 04-28-2020
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