

## 29501 Multi-Conductor - 1000V UL Flexible Motor Supply Cable



For more Information  
please call

1-800-Belden1



### General Description:

4-cond. (3) stranded tinned copper circuit conductors plus(1) ground wire with PVC insulation, XLPE insulation, overall Duofoil® (100% coverage) plus a tinned copper braid shield (85% coverage) , tinned copper drain wire, sun- & oil-resistant PVC jacket.

### Usage (Overall)

**Suitable Applications:** AC Motor Drives, VFD, Variable Frequency Drive

### Physical Characteristics (Overall)

#### Conductor

**AWG:**

# Conductors	AWG	Stranding	Conductor Material
3	14	41x30	TC - Tinned Copper

**Total Number of Conductors:** 3

#### Ground Wire

**Ground Wire (Y/N):** Y

**Ground Wire AWG:** 14

**Ground Wire Stranding:** 41x30

**Ground Wire Conductor Material:** TC - Tinned Copper

**Ground Wire Insulation Material:** PVC - Polyvinyl Chloride

#### Insulation

**Insulation Material:**

Insulation Material	Wall Thickness (mm)
XLP - Cross-Linked Polyolefin	1.143

**Insulation Resistance:** 300 Megaohms/1000 ft.

**Insulation Color Code Chart:**

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

#### Outer Shield

**Outer Shield Material:**

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Duofoil®	Tape	Aluminum Foil-Polyester Tape	100
2		Braid	TC - Tinned Copper	85

**Outer Shield Drain Wire AWG:**

AWG	Stranding	Drain Wire Conductor Material
14	41x30	TC - Tinned Copper

#### Outer Jacket

**Outer Jacket Material:**

Outer Jacket Material	Nom. Wall Thickness (mm)

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PVC - Polyvinyl Chloride	1.854
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### Overall Cable

**Overall Nominal Diameter:** 15.342 mm

### Mechanical Characteristics (Overall)

**Wet Temperature Range:** -40°C To +90°C

**Dry Temperature Range:** -40°C To +90°C

**Bulk Cable Weight:** 282.758 Kg/Km

**Max. Recommended Pulling Tension:** 943.018 N

**Min. Bend Radius/Minor Axis:** 121.920 mm

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

**NEC/(UL) Specification:** TC-ER, Unlisted Singles, WTTC

**NEC Articles:** 336 - ER

**CEC/C(UL) Specification:** 600V Type CIC TC

**CSA Specification:** 1000 V AWM I/II A/B

**EU Directive 2011/65/EU (ROHS II):** Yes

**EU CE Mark:** Yes

**EU Directive 2000/53/EC (ELV):** Yes

**EU Directive 2002/95/EC (RoHS):** Yes

**EU RoHS Compliance Date (mm/dd/yyyy):** 10/13/2005

**EU Directive 2002/96/EC (WEEE):** Yes

**EU Directive 2003/11/EC (BFR):** Yes

**CA Prop 65 (CJ for Wire & Cable):** Yes

**MII Order #39 (China RoHS):** Yes

**PMSHA Specification:** P-07-KA070003

**Other Specification:** 1000V UL Flexible Motor Supply Cable

#### Flame Test

**UL Flame Test:** UL1685 UL Loading

**CSA Flame Test:** FT4

**IEEE Flame Test:** 1202, IEEE 383 Vertical Tray Flame Test (70,000 BTU)

#### Suitability

**Suitability - Indoor:** Yes

**Suitability - Outdoor:** Yes

**Suitability - Burial:** Yes

**Sunlight Resistance:** Yes

**Oil Resistance:** Yes

### Electrical Characteristics (Overall)

#### Nom. Characteristic Impedance:

<b>Impedance (Ohm)</b>
80

#### Nom. Inductance:

<b>Inductance (µH/m)</b>
0.698853

METRIC MEASUREMENT VERSION

## 29501 Multi-Conductor - 1000V UL Flexible Motor Supply Cable

### Nom. Capacitance Conductor to Conductor:

Capacitance (pF/m)
75.463

### Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/m)
137.802

### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)
8.26812

### Max. Operating Voltage - UL:

Voltage
1000 V RMS (Flexible Motor Supply Cable)
600 V RMS (NEC Type TC)

### Max. Operating Voltage - Other:

Voltage	Description
1000 V RMS	CSA AWM I/II A/B

### Max. Recommended Current:

Current
25 Amps per conductor @ 30°C (per NEC)

## Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
29501 010100	100 FT	27.000 LB	BLACK		4 #14 XLPE/PVC SH PVC
29501 0101000	1,000 FT	238.000 LB	BLACK	C Z	4 #14 XLPE/PVC SH PVC
29501 010250	250 FT	61.000 LB	BLACK	C Z	4 #14 XLPE/PVC SH PVC
29501 010500	500 FT	119.500 LB	BLACK	C Z	4 #14 XLPE/PVC SH PVC
29501 0105000	5,000 FT	1,240.000 LB	BLACK	C Z	4 #14 XLPE/PVC SH PVC

#### Notes:

C = CRATE REEL PUT-UP.

Z = FINAL PUT-UP LENGTH MAY VARY (+ OR -) 10% FOR SPOOLS OR REELS AND(+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

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