

## 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 (in.)
XLP - Cross-Linked Polyolefin	0.045

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 (in.)
PVC - Polyvinyl Chloride	0.073

#### Overall Cable

Overall Nominal Diameter: 0.604 in.

### Mechanical Characteristics (Overall)

Wet Temperature Range: -40°C To +90°C

Dry Temperature Range: -40°C To +90°C

Bulk Cable Weight: 190 lbs/1000 ft.

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Max. Recommended Pulling Tension:	212 lbs.
Min. Bend Radius/Minor Axis:	4.800 in.

### 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:

Impedance (Ohm)  
80

#### Nom. Inductance:

Inductance (µH/ft)  
.213

#### Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)  
23

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

Capacitance (pF/ft)  
42

#### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)  
2.52

#### 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:

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**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		#14/4C XLPE SH PVC
29501 0101000	1,000 FT	238.000 LB	BLACK	C Z	#14/4C XLPE SHPVC
29501 010250	250 FT	61.000 LB	BLACK	C Z	#14/4C XLPE SHPVC
29501 010500	500 FT	119.500 LB	BLACK	C Z	#14/4C XLPE SHPVC
29501 0105000	5,000 FT	1,240.000 LB	BLACK	C Z	#14/4C XLPE 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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