

## 29502 Multi-Conductor - 1000V UL Flexible Motor Supply Cable

For more Information  
please call

1-800-Belden1



### 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	12	65x30	TC - Tinned Copper

#### Ground Wire

Ground Wire (Y/N):	Y
Ground Wire AWG:	12
Ground Wire Stranding:	65x30
Ground Wire Conductor Material:	TC - Tinned Copper
Ground Wire Insulation Material:	PVC - Polyvinyl Chloride

#### Insulation

Insulation Material:

Insulation Material	Wall Thickness (in.)
XLPE - Cross Linked Polyethylene	.045

Insulation Resistance: 300 Megaohms/1000 ft.

#### 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
12	65x30	TC - Tinned Copper

#### Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

#### Overall Cabling

Overall Nominal Diameter: **0.630 in.**

### Mechanical Characteristics (Overall)

Operating Temperature Range:	-40°C To +90°C Dry, +90°C Wet
UL Temperature Rating:	90°C Wet/Dry

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<b>Bulk Cable Weight:</b>	250 lbs/1000 ft.
<b>Max. Recommended Pulling Tension:</b>	336 lbs.
<b>Min. Bend Radius (Install)/Minor Axis:</b>	5.200 in.

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

<b>NEC/(UL) Specification:</b>	TC-ER, Unlisted Singles, WTTC
<b>NEC Articles:</b>	336 - ER
<b>CSA Specification:</b>	1000 V AWM I/II A/B
<b>EU CE Mark:</b>	Yes
<b>EU Directive 2000/53/EC (ELV):</b>	Yes
<b>EU Directive 2002/95/EC (RoHS):</b>	Yes
<b>EU RoHS Compliance Date (mm/dd/yyyy):</b>	10/13/2005
<b>EU Directive 2002/96/EC (WEEE):</b>	Yes
<b>EU Directive 2003/11/EC (BFR):</b>	Yes
<b>CA Prop 65 (CJ for Wire &amp; Cable):</b>	Yes
<b>MII Order #39 (China RoHS):</b>	Yes
<b>PMSHA Specification:</b>	P-07-KA070003
<b>Other Specification:</b>	1000V UL Flexible Motor Supply Cable

#### Flame Test

<b>UL Flame Test:</b>	UL1685 UL Loading
<b>CSA Flame Test:</b>	FT4
<b>IEEE Flame Test:</b>	1202, IEEE 383 Vertical Tray Flame Test (70,000 BTU)

#### Suitability

<b>Suitability - Indoor:</b>	Yes
<b>Suitability - Outdoor:</b>	Yes
<b>Suitability - Burial:</b>	Yes
<b>Sunlight Resistance:</b>	Yes
<b>Oil Resistance:</b>	Yes

### Electrical Characteristics (Overall)

#### Nom. Characteristic Impedance:

Impedance (Ohm)

71

#### Nom. Inductance:

Inductance (µH/ft)

.197

#### Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)

26

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

Capacitance (pF/ft)

47

#### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

1.6

#### Max. Operating Voltage - UL:

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

**Max. Recommended Current:**

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

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
29502 010100	100 FT	32.300 LB	BLACK		#12/4C XLPE SH PVC
29502 0101000	1,000 FT	301.000 LB	BLACK	C Z	#12/4C XLPE SHPVC
29502 010250	250 FT	76.500 LB	BLACK	C Z	#12/4C XLPE SHPVC
29502 010500	500 FT	146.000 LB	BLACK	C Z	#12/4C XLPE SHPVC
29502 0105000	5,000 FT	1,710.000 LB	BLACK	C Z	#12/4C 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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