

29501F 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 TPE jacket.

Usage (Overall)

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

Physical Characteristics (Overall)

Conductor

AWG:

| # Conductors | AWG | Stranding | Conductor Material |
|--------------|-----|-----------|--------------------|
| 3 | 14 | 104x34 | TC - Tinned Copper |

Total Number of Conductors: 3

Ground Wire

Ground Wire (Y/N): Y

Ground Wire AWG: 14

Ground Wire Stranding: 104x34

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 | 104x34 | TC - Tinned Copper |

Outer Jacket

Outer Jacket Material:

| Outer Jacket Material | Nom. Wall Thickness (mm) |
|-------------------------------|--------------------------|
| TPE - Thermoplastic Elastomer | 1.854 |

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Overall Cable

| | |
|-------------------------------------|-------------------------------|
| Overall Cabling Separator Material: | Non-Woven Polyester Slip Tape |
| Overall Nominal Diameter: | 14.910 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: | 73.660 mm |
| Min. Bend Radius (Continuous Flexing): | 111.760 mm |
| Flex Cycle Rating: | 10 Million Flexes |

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 |
| 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 |
| 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 - Oil Res II |

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)

80

Nom. Inductance:

Inductance (µH/m)

0.698853

METRIC MEASUREMENT VERSION

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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. Recommended Current:

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

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|----------------|----------|--------------|-------|-------|-----------------------|
| 29501F 0101000 | 1,000 FT | 219.000 LB | BLACK | | 4 #14 XLPO/PVC SH TPE |
| 29501F 0105000 | 5,000 FT | 1,145.000 LB | BLACK | | 4 #14 XLPO/PVC SH TPE |

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