Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION



29500F 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, (1) ground wire with PVC insulation, XLP insulation, Overall Duofoil® (100% coverage) plus a tinned copper braid shield (85% coverage), tinned copper drain wire, Oil & Sun-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 | 16 | 65x34 | TC - Tinned Copper |

Total Number of Conductors: 3

Ground Wire

| ound wife | |
|----------------------------------|--------------------------|
| Ground Wire (Y/N): | Υ |
| Ground Wire AWG: | 16 |
| Ground Wire Stranding: | 65x34 |
| 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 |
| 4 | 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 |
|-----|-----------|--------------------------------------|
| 16 | 65x34 | TC - Tinned Copper |

Outer Jacket

Outer Jacket Material:

| Outer Jacket Material | Nom. Wall Thickness (mm) |
|-------------------------------|--------------------------|
| TPE - Thermoplastic Elastomer | 1.600 |

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Overall Cable

| Overall Cabling Separator Material: | Non-Woven Polyester Slip Tape |
|-------------------------------------|-------------------------------|
| Overall Nominal Diameter: | 13.411 mm |

Mechanical Characteristics (Overall)

| Wet Temperature Range: | -40°C To +90°C |
|--|-------------------|
| Dry Temperature Range: | -40°C To +90°C |
| Bulk Cable Weight: | 238.112 Kg/Km |
| Max. Recommended Pulling Tension: | 569.370 N |
| Min. Bend Radius/Minor Axis: | 66.040 mm |
| Min. Bend Radius (Continuous Flexing): | 101.600 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 |

Sui

| artability | |
|------------------------|------------------|
| Suitability - Indoor: | Yes |
| Suitability - Outdoor: | Yes |
| Suitability - Burial: | Yes |
| Sunlight Resistance: | Yes |
| Oil Resistance: | Yes - Oil Res II |
| | |

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:



Nom. Inductance:

Inductance (µH/m) 0.755

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Nom. Capacitance Conductor to Conductor:

| Capacitance (pF/m) | |
|--------------------|--|
| 68.901 | |

Nom. Capacitance Cond. to Other Conductor & Shield:

| Capacitance (pF/m) |) |
|--------------------|---|
| 124.678 | |

Nom. Conductor DC Resistance:

| DCR @ 20°C (Ohm/km) |
|---------------------|
| 13.124 |

Max. Operating Voltage - UL:

| Voltage | |
|---------------|------------------------------|
| 1000 V RMS (F | Flexible Motor Supply Cable) |
| 600 V RMS (N | EC Type TC) |

Max. Recommended Current:

| Current |
|--|
| 18 Amps per conductor @ 30°C (per NEC) |

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|----------------|----------|--------------|-------|-------|-----------------------|
| 29500F 0101000 | 1,000 FT | 175.000 LB | BLACK | | 4 #16 XLPO/PVC SH TPE |
| 29500F 0106000 | 6,000 FT | 1,158.000 LB | BLACK | | 4 #16 XLPO/PVC SH TPE |

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