



Product: [29530F](#)

VFD 100% Gnd, 3C #2/0 Str TC XLPE Ins + #2/0 Symm. Seg. Gnd (3 of #4+) Str TC, CTS, Blk TPE Jkt, 600/1000V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable WTTC

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Product Description

Belden 100% Ground Extra Flexible VFD, 3 Conductor 2/0AWG (7x7x27x30) Tinned Copper XLPE Insulation M4 Color Code + 2/0AWG Symmetrical Segmented Ground (3 of 4AWG+) Tinned Copper Stranded, Overall Dual Copper Tapes Helically Applied Shield, Black TPE Outer Jacket, 600/1000V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable 1000V WTTC 600V CIC TC SUN RES OIL RES II DIR BUR

Technical Specifications

Product Overview

| | |
|------------------------|--|
| Suitable Applications: | Variable Frequency Drives (VFD); AC Motor and Drive Systems, Exposure to high flex, motion, and abrasion, Hard to reach installation areas; Class 1 Division 2 Hazardous Locations |
|------------------------|--|

Construction Details

Conductor

| Element | No. of Elements | Size | Stranding | Material | Notes |
|--------------|-----------------|---------|-----------|--------------------|-------------------|
| Conductor(s) | 3 | 2/0 AWG | 7x7x27x30 | TC - Tinned Copper | |
| Ground | 3 | 4 AWG | 7x60x30 | TC - Tinned Copper | Segmented Grounds |

Insulation

| Element | Material | Nom. Thickness | Color Code |
|--------------|--|-------------------|--------------------|
| Conductor(s) | XLPE - Cross-Linked Polyethylene (Thermoset) | 0.057 in (1.4 mm) | Black and Numbered |
| Ground | No Insulation | | |

Outer Shield

| Shield Type | Material | Coverage |
|--------------|------------------|----------|
| Helical Tape | Bare Copper (BC) | 100% |
| Helical Tape | Bare Copper (BC) | 100% |

Outer Jacket

| Material | Nom. Thickness | Nom. Diameter | Ripcord |
|-------------------------------|-------------------|---------------------|---------|
| TPE - Thermoplastic Elastomer | 0.083 in (2.1 mm) | 1.503 in (38.18 mm) | Yes |

Overall Cable Diameter (Nominal): 1.503 in (38.18 mm)

Electrical Characteristics

Electricals

| Element | Nom. Conductor DCR | Nom. Capacitance Cond-to-Cond | Nom. Capacitance Cond-to-Other (Conds + Shield) | Nom. Characteristic Impedance | Nom. Velocity of Prop. | Max. Current |
|--------------|--------------------------------|-------------------------------|---|-------------------------------|------------------------|--|
| Conductor(s) | 0.077 Ohm/1000ft (0.25 Ohm/km) | 50 pF/ft (160 pF/m) | 90 pF/ft (300 pF/m) | 36 Ohm | 55% | 195 Amps per Conductor at 30°C (per NEC) |

Voltage

| UL Voltage Rating |
|---|
| 1000 V (TC, WTTC, UL Flexible Motor Supply Cable), 600 V (C(UL) CIC TC) |

Mechanical Characteristics

Temperature

| UL Temperature | Operating |
|--------------------|----------------|
| 90°C Dry, 90°C Wet | -40°C To +90°C |

Bend Radius

| Stationary Min. | Installation Min. | Flexing Min. |
|-----------------|-------------------|------------------|
| 7.5 in (190 mm) | 18.0 in (457 mm) | 18.0 in (457 mm) |

| | |
|--------------------|------------------------------|
| Max. Pull Tension: | 6797 lbs (3083 kg) |
| Bulk Cable Weight: | 2080 lbs/1000ft (3100 kg/km) |

Standards and Compliance

| | |
|----------------------------------|---|
| Environmental Suitability: | Indoor, Outdoor, Sunlight Resistance, Oil Resistance, Burial |
| Sustainability: | CA Prop 65 |
| Flammability / Reaction to Fire: | UL1685 UL Loading, FT4, 1202, 383 Vertical Tray Flame Test (70,000 BTU) |
| NEC / UL Compliance: | Article 336, TC-ER, WTTTC, XHHW-2, UL Flexible Motor Supply Cable |
| CEC / C(UL) Compliance: | CIC, TC |
| ICEA Compliance: | S-95-658 |
| European Directive Compliance: | EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE) |
| APAC Compliance: | China RoHS II (GB/T 26572-2011) |

History

| | |
|----------------------|--|
| Update and Revision: | Revision Number: 0.520 Revision Date: 06-19-2024 |
|----------------------|--|

Part Numbers

Variants

| Item # | Color | Putup Type | UPC |
|----------------|-------|------------|--------------|
| 29530F 0102000 | Black | Reel | 612825373407 |

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