



Product: [29501](#)

VFD 300% Gnd, 3C+G #14 Str TC, XLPE Ins+PVC Gnd, OS+TC Brd w/#14 TC Ground/Drain, Blk PVC Jkt, 600/1000V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable WTTTC

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Product Description

Belden 300% Ground Flexible VFD, 3 Conductor 14AWG (41x30) Tinned Copper, XLPE Insulation M4 Color Code+PVC Insulated Ground, Overall Beldfoil®+Tinned Copper Braid(85%) Shield w/14AWG Tinned Copper Ground/Drain, Black PVC Outer Jacket, 600/1000V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable WTTTC 1000V CSA AWM I/II A/B 600V CIC TC SUN RES DIR BUR Oil Resistant

Technical Specifications

Product Overview

| | |
|------------------------|---|
| Suitable Applications: | Variable Frequency Drives (VFD); AC Motor and Drive Systems; Class 1 Division 2 Hazardous Locations; Recommended Cable Gland Belden BTC075A0791RA |
|------------------------|---|

Construction Details

Conductor

| Element | No. of Elements | Size | Stranding | Material | Notes |
|-------------------------|-----------------|--------|-----------|--------------------|-------------------------|
| Conductor(s) | 3 | 14 AWG | 41x30 | TC - Tinned Copper | Phase Conductor |
| Insulated Ground | 1 | 14 AWG | 41x30 | TC - Tinned Copper | Insulated Ground Wire |
| Uninsulated Ground Wire | 1 | 14 AWG | 41x30 | TC - Tinned Copper | Uninsulated Ground Wire |

Insulation

| Element | Material | Nom. Thickness | Nom. Insulation Diameter | Color Code |
|-------------------------|--|-------------------|--------------------------|---------------------|
| Conductor(s) | XLPE - Cross-Linked Polyethylene (Thermoset) | 0.046 in (1.2 mm) | 0.173 in (4.39 mm) | ICEA Chart M4 |
| Insulated Ground | PVC - Polyvinyl Chloride | 0.047 in (1.2 mm) | 0.169 in (4.29 mm) | Green/Yellow Stripe |
| Uninsulated Ground Wire | | | | |

Outer Shield

| Shield Type | Material | Coverage | Drainwire Type |
|-------------|-------------------------------|----------|-------------------|
| Tape | Tri-Laminate (Alum+Poly+Alum) | 100% | 14 AWG (41x30) TC |
| Braid | Tinned Copper (TC) | 85% | |

Outer Jacket

| Material | Nom. Thickness | Nom. Diameter | Ripcord |
|--------------------------|-------------------|--------------------|---------|
| PVC - Polyvinyl Chloride | 0.073 in (1.9 mm) | 0.604 in (15.3 mm) | Yes |

Overall Cable Diameter (Nominal): 0.604 in (15.3 mm)

Electrical Characteristics

Electricals

| Element | Nom. Conductor DCR | Nom. Capacitance Cond-to-Cond | Nom. Capacitance Cond-to-Other (Conds + Shield) | Nom. Characteristic Impedance | Nom. Inductance Cond-Grnd | Nom. Velocity of Prop. | Max. Current |
|-------------------------|-------------------------------|-------------------------------|---|-------------------------------|---------------------------|------------------------|---|
| Conductor(s) | 2.482 Ohm/1000ft | 23.0 pF/ft (75.5 pF/m) | 47 pF/ft (150 pF/m) | 63 Ohm | 0.213 μH/ft | 55% | 25 Amps per Conductor at 30°C (per NEC) |
| Insulated Ground | 2.73 Ohm/1000ft (8.96 Ohm/km) | | | | | | |
| Uninsulated Ground Wire | 2.73 Ohm/1000ft (8.96 Ohm/km) | | | | | | |

Voltage

| UL Voltage Rating | Voltage Rating |
|-------------------|----------------|
| | |

Mechanical Characteristics

Temperature

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

Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 7.2 in (180 mm) | 7.2 in (180 mm) |

| | |
|--------------------|------------------|
| Max. Pull Tension: | 347 lbs (157 kg) |
| Bulk Cable Weight: | 224 lbs/1000ft |

Standards and Compliance

| | |
|----------------------------------|---|
| Environmental Suitability: | Indoor, Outdoor, Sunlight Resistance, Burial |
| Sustainability: | CA Prop 65 |
| Flammability / Reaction to Fire: | UL 1685 FT4 Loading, FT4, IEEE 1202 FT4 |
| NEC / UL Compliance: | Article 336, TC-ER, XHHW-2, RHW-2, UL Flexible Motor Supply Cable |
| AWM Compliance: | AWM I/II A/B |
| 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) |
| Other Standard Compliance(s): | P-07-KA070003-MSHA |

History

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| Update and Revision: | Revision Number: 0.671 Revision Date: 06-21-2024 |
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Part Numbers

Variants

| Item # | Color | Putup Type | Length | UPC | Footnote |
|---------------|-------|------------|----------|--------------|--|
| 29501 010100 | Black | Reel | 100 ft | 612825136620 | Recommended Cable Gland BTC075A0791RA In Stock |
| 29501 010250 | Black | Reel | 250 ft | 612825136651 | C Z |
| 29501 010500 | Black | Reel | 500 ft | 612825136668 | C Z |
| 29501 0101000 | Black | Reel | 1,000 ft | 612825136637 | C Z |
| 29501 0105000 | Black | Reel | 5,000 ft | 612825136675 | C Z |

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