



Product: [29505T](#)

VFD 300% Gnd, 3C+G #6 Str TC, XLPE Ins+PVC Grd, OS+TC Brd w/4-#12 TC Drains, Blk LSZH Jkt, 600/1000V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable WTTC

Product Description

Belden 300% Ground Flexible VFD, 3 Conductor 6AWG (7x19x27) Tinned Copper, XLPE Insulation M4 Color Code+PVC Insulated Ground, Overall Beldfoil®+Tinned Copper Braid(85%) Shield w/4-12AWG Tinned Copper Drains, Black LSZH Outer Jacket, 600/1000V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable WTTC SUN RES DIR BUR

Technical Specifications

Product Overview

| | |
|------------------------|--|
| Suitable Applications: | Variable Frequency Drives (VFD); AC Motor and Drive Systems; Human safety applications with flame or toxicity concerns (low smoke, zero halogen) |
|------------------------|--|

Construction Details

Conductor

| Element | No. of Elements | Size | Stranding | Material |
|--------------|-----------------|-------|-----------|--------------------|
| Conductor(s) | 3 | 6 AWG | 7x19x27 | TC - Tinned Copper |
| Ground | 1 | 6 AWG | 7x19x27 | TC - Tinned Copper |

Insulation

| Element | Material | Nom. Thickness | Color Code |
|--------------|--|-------------------|---------------------|
| Conductor(s) | XLPE - Cross-Linked Polyethylene (Thermoset) | 0.062 in (1.6 mm) | Black and Numbered |
| Ground | PVC - Polyvinyl Chloride | 0.062 in (1.6 mm) | Green/Yellow Stripe |

Outer Shield

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

Outer Jacket

| Material | Nom. Thickness | Nom. Diameter | Ripcord |
|---|-------------------|---------------------|---------|
| LSZH - Low Smoke Zero Halogen (Flame Retardant) | 0.095 in (2.4 mm) | 1.002 in (25.45 mm) | Yes |

| | |
|-----------------------------------|---------------------|
| Overall Cable Diameter (Nominal): | 1.002 in (25.45 mm) |
|-----------------------------------|---------------------|

Electrical Characteristics

Electricals

| Element | Nom. Conductor DCR | Nom. Inner Shield DCR | Nom. Capacitance Cond-to-Cond | Nom. Capacitance Cond-to-Shield | Nom. Capacitance Cond-to-Other (Conds + Shield) | Nom. Characteristic Impedance | Nom. Velocity of Prop. | Max. Current |
|--------------|--------------------------------|-------------------------------|-------------------------------|---------------------------------|---|-------------------------------|------------------------|-------------------------------|
| Conductor(s) | 0.384 Ohm/1000ft (1.26 Ohm/km) | 4.99 Ohm/1000ft (16.4 Ohm/km) | 23 pF/ft (75 pF/m) | 42 pF/ft (140 pF/m) | 42 pF/ft (140 pF/m) | 80 Ohm | 55% | 75 Amps per Conductor at 30°C |

Voltage

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

Mechanical Characteristics

Temperature

| UL Temperature | Operating |
|--------------------|----------------|
| 90°C Dry, 90°C Wet | -25°C To +90°C |

Bend Radius

| Stationary Min. | Installation Min. |
|------------------|-------------------|
| 12.0 in (305 mm) | 12.0 in (305 mm) |

| | |
|--------------------|-----------------------------|
| Max. Pull Tension: | 1358 lbs (616.0 kg) |
| Bulk Cable Weight: | 782 lbs/1000ft (1160 kg/km) |

Standards and Compliance

| | |
|----------------------------------|--|
| Environmental Suitability: | Indoor, Outdoor, Sunlight Resistance, Oil Resistance, Burial |
| Sustainability: | CA Prop 65 |
| Flammability / Reaction to Fire: | UL1685 FT4 Loading |
| NEC / UL Compliance: | Article 336, TC-ER, WTTTC, UL Flexible Motor Supply Cable |
| ICEA Compliance: | S-95-658 |
| APAC Compliance: | China RoHS II (GB/T 26572-2011) |

History

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|----------------------|--|
| Update and Revision: | Revision Number: 0.262 Revision Date: 04-11-2025 |
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Part Numbers

Variants

| Item # | Color | Putup Type | UPC |
|----------------|-------|------------|--------------|
| 29505T 0101000 | Black | Reel | 612825137191 |
| 29505T 0103500 | Black | Reel | 612825137207 |

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