



Product: [29504](#)

VFD 300% Gnd, 3C+G #8 Str TC, XLPE Ins+PVC Gnd, OS+TC Brd w/4-#14 TC Drains, Blk PVC Jkt, 600V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable

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Product Description

Belden 300% Ground Flexible VFD, 3 Conductor 8AWG (7x19x29) Tinned Copper, XLPE Insulation M4 Color Code+PVC Insulated Ground, Overall Beldfoil®+Tinned Copper Braid(85%) Shield w/4-14AWG Tinned Copper Drains, Black PVC Outer Jacket, 600V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable 1000V CSA AWM I/II A/B 600V CIC TC SUN RES DIR BUR Oil Resistant

Technical Specifications

Product Overview

| | |
|------------------------|---|
| Suitable Applications: | AC Motor drives, VFD, Variable Frequency drives |
|------------------------|---|

Physical Characteristics (Overall)

Conductor

| Element | AWG | Stranding | Material | No. of Conductors |
|-----------|-----|-----------|--------------------|-------------------|
| Conductor | 8 | 7x19x29 | TC - Tinned Copper | 3 |
| Ground | 8 | 7x19x29 | TC - Tinned Copper | 1 |

| | |
|------------------|---|
| Conductor Count: | 3 |
|------------------|---|

Insulation

| Material | Nominal Wall Thickness |
|-----------------------------|------------------------|
| XLP, XLPO, XLPE (Thermoset) | 0.06 in |
| PVC - Polyvinyl Chloride | 0.06 in |

Color Chart

| Number | Color |
|--------|----------------------|
| 1 | Black and Numbered 1 |
| 2 | Black and Numbered 2 |
| 3 | Black and Numbered 3 |
| 4 | Green/Yellow |

Outer Shield Material

| Type | Layer | Material | Material Trade Name | Coverage [%] | Drainwire Material | Drainwire AWG |
|-------|-------|--------------------|---------------------|--------------|--------------------|---------------|
| Tape | 1 | Alum / Poly / Alum | Duofoil® | 100 % | TC - Tinned Copper | 14 (4x) |
| Braid | 2 | TC - Tinned Copper | | 85 % | | |

Outer Jacket Material

| Material | Nominal Diameter | Nominal Wall Thickness |
|--------------------------|------------------|------------------------|
| PVC - Polyvinyl Chloride | 0.923 in | 0.093 in |

Electrical Characteristics

Conductor DCR

| Nominal Conductor DCR |
|-----------------------|
| 0.64 Ohm/1000ft |

Capacitance

| Nom. Capacitance Conductor to Conductor | Nom. Capacitance Conductor to Other Conductor to Shield |
|---|---|
| 30 pF/ft | 54 pF/ft |

Inductance

| Nominal Inductance |
|--------------------|
| 0.181 μ H/ft |

Impedance

| Nominal Characteristic Impedance |
|----------------------------------|
| 62 Ohm |

Current

| Max. Recommended Current [A] |
|--|
| 55 Amps per conductor @ 30°C (per NEC) |

Voltage

| Description | UL Voltage Rating | Voltage Rating [V] |
|------------------|--|-------------------------------|
| CSA AWM I/II A/B | 1000 V RMS (Flexible Motor Supply Cable) | 1000 V RMS (CSA AWM I/II A/B) |
| | 600 V RMS (Type TC) | |

Temperature Range

| | |
|-----------------|--------------------|
| UL Temp Rating: | 90°C Dry, 90°C Wet |
| Wet Temp Range: | -40°C To +90 °C |
| Dry Temp Range: | -40°C To +90 °C |

Mechanical Characteristics

| | |
|----------------------------------|----------------|
| Bulk Cable Weight: | 604 lbs/1000ft |
| Max Recommended Pulling Tension: | 768 lbs |
| Min Bend Radius/Minor Axis: | 7.5 in |

Standards

| | |
|--------------------------|--------------------------------------|
| NEC Articles: | 336 - ER |
| NEC/(UL) Specification: | TC-ER, WTTTC, XHHW-2 |
| CEC/C(UL) Specification: | 600V Type CIC TC |
| CSA AWM Specification: | 1000 V AWM I/II A/B |
| PMSHA Specification: | P-07-KA070003 |
| Other Specification: | 1000V UL Flexible Motor Supply Cable |

Applicable Environmental and Other Programs

| | |
|---------------------------------------|-------------------------------|
| EU Directive 2000/53/EC (ELV): | Yes |
| EU Directive 2003/96/EC (BFR): | Yes |
| EU Directive 2011/65/EU (ROHS II): | Yes |
| EU Directive 2012/19/EU (WEEE): | Yes |
| EU Directive 2015/863/EU: | Yes |
| EU Directive Compliance: | EU Directive 2003/11/EC (BFR) |
| EU CE Mark: | Yes |
| EU RoHS Compliance Date (yyyy-mm-dd): | 2005-10-13 |
| MII Order #39 (China RoHS): | Yes |

Suitability

| | |
|------------------------------------|-----|
| Suitability - Burial: | Yes |
| Suitability - Indoor: | Yes |
| Suitability - Oil Resistance: | Yes |
| Suitability - Outdoor: | Yes |
| Suitability - Sunlight Resistance: | Yes |

Flammability, LS0H, Toxicity Testing

| | |
|--------------------|-------------------|
| UL Flammability: | UL1685 UL Loading |
| CSA Flammability: | FT4 |
| IEEE Flammability: | 1202, 383 |

| | |
|--------------------|--|
| UL voltage rating: | 1000 V RMS (Flexible Motor Supply Cable) |
|--------------------|--|

Part Number

Variants

| Item # | Color | Putup Type | Length | UPC |
|---------------|-------|------------|----------|--------------|
| 29504 010250 | Black | Reel | 250 ft | 612825137030 |
| 29504 010500 | Black | Reel | 500 ft | 612825137078 |
| 29504 0101000 | Black | Reel | 1,000 ft | 612825137016 |
| 29504 0105000 | Black | Reel | 5,000 ft | 612825137085 |

| | |
|-----------|--|
| Footnote: | C - CRATE REEL PUT-UP. |
| Footnote: | Z - FINAL PUT-UP MAY VARY (= OR -) 10% FOR SPOOLS OR REELS AND (+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN. |

History

| | |
|----------------------|--|
| Update and Revision: | Revision Number: 0.351 Revision Date: 04-28-2020 |
|----------------------|--|

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