



**Product:** [29511](#)

VFD 300% Gnd, 3C+G #14 Str TC, XLPE Ins+PVC Gnd, OS+TC Brd, 1 Pr #16 Str TC XLPE IS, Blk PVC Jkt, 600V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable

[Request Sample](#)

## 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, 1 Pair 16AWG (26x30) Tinned Copper XLPE Beldfoil, 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  | 14  | 41x30     | TC - Tinned Copper | 3                 |
| Brake Pair | 16  | 26x30     | TC - Tinned Copper | 2                 |
| Ground     | 14  | 41x30     | TC - Tinned Copper | 1                 |

|                  |   |
|------------------|---|
| Conductor Count: | 5 |
|------------------|---|

#### Insulation

| Material                     | Nominal Wall Thickness |
|------------------------------|------------------------|
| XLPE, XLPO, XLPE (Thermoset) | 0.046 in               |
| XLPE, XLPO, XLPE (Thermoset) | 0.032 in               |
| PVC - Polyvinyl Chloride     | 0.047 in               |

#### Color Chart

| Number | Color                |
|--------|----------------------|
| 1      | Black #1             |
| 2      | Black #2             |
| 3      | Black #3             |
| 4      | Black and White Pair |
| 5      | Green/Yellow         |

#### Inner Shield Material

| Type | Material    | Material Trade Name | Coverage [%] | Drainwire Material | Drainwire AWG |
|------|-------------|---------------------|--------------|--------------------|---------------|
| Tape | Alum / Poly | Beldfoil®           | 100 %        | TC - Tinned Copper | 18            |

#### Outer Shield Material

| Type  | Layer | Material           | Material Trade Name | Coverage [%] | Drainwire Material | Drainwire AWG | Drainwire Construction n x D |
|-------|-------|--------------------|---------------------|--------------|--------------------|---------------|------------------------------|
| Tape  | 1     | Alum / Poly / Alum | Duofoil®            | 100 %        | TC - Tinned Copper | 14            | 41x30                        |
| Braid | 2     | TC - Tinned Copper |                     | 85 %         |                    |               |                              |

|                          |  |
|--------------------------|--|
| Outer Shield Table Note: | Duofoil+Braid is over Power conductors only, Brake Pair has only the Foil Inner Shield |
|--------------------------|--|

#### Outer Jacket Material

| Material | Nominal Diameter | Nominal Wall Thickness | Ripcord |
|----------|------------------|------------------------|---------|
|----------|------------------|------------------------|---------|

|                          |         |          |     |
|--------------------------|---------|----------|-----|
| PVC - Polyvinyl Chloride | 0.82 in | 0.075 in | Yes |
|--------------------------|---------|----------|-----|

## Electrical Characteristics

### Conductor DCR

| Nominal Conductor DCR | Nominal Inner Shield DCR |
|-----------------------|--------------------------|
| 2.52 Ohm/1000ft       | 4.99 Ohm/1000ft          |
| 4 Ohm/1000ft          | 4.99 Ohm/1000ft          |
| 2.52 Ohm/1000ft       |                          |

### Capacitance

| Nom. Capacitance Conductor to Conductor | Nom. Capacitance Conductor to Shield |
|---|--------------------------------------|
| 23 pF/ft                                | 42 pF/ft                             |
| 34 pF/ft                                |                                      |
| 23 pF/ft                                | 42 pF/ft                             |

### Inductance

| Nominal Inductance |
|--------------------|
| 0.213 $\mu$ H/ft   |
| 0.213 $\mu$ H/ft   |

### Voltage

| UL Voltage Rating   |
|---------------------|
| 1000 V RMS          |
| 600 V RMS (Type TC) |

## Temperature Range

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

## Mechanical Characteristics

|                                  |         |
|----------------------------------|---------|
| Max Recommended Pulling Tension: | 368 lbs |
| Min Bend Radius/Minor Axis:      | 8.2 in  |

## Standards

|                          |                                      |
|--------------------------|--------------------------------------|
| NEC Articles:            | 336 - ER                             |
| NEC/(UL) Specification:  | RHW-2 Singles, TC-ER, XHHW-2         |
| CEC/C(UL) Specification: | CIC, TC                              |
| CSA AWM Specification:   | 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): | 2006-09-21                    |
| MII Order #39 (China RoHS):           | Yes                           |

## Suitability

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

## Flammability, LSOH, Toxicity Testing

|                    |  |
|--------------------|--|
| UL Flammability:   | UL1685 UL Loading                        |
| CSA Flammability:  | FT4                                      |
| IEEE Flammability: | 1202, 383                                |
| UL voltage rating: | 1000 V RMS (Flexible Motor Supply Cable) |

**Plenum/Non-Plenum**

|               |    |
|---------------|----|
| Plenum (Y/N): | No |
|---------------|----|

**Part Number**

**Variants**

| Item #        | Color | Putup Type | Length   | UPC          |
|---------------|-------|------------|----------|--------------|
| 29511 010100  | Black | Reel       | 100 ft   | 612825137481 |
| 29511 010500  | Black | Reel       | 500 ft   | 612825137504 |
| 29511 0101000 | Black | Reel       | 1,000 ft | 612825137498 |
| 29511 0105000 | Black | Reel       | 5,000 ft | 612825137511 |

|           |                        |
|-----------|------------------------|
| Footnote: | C - CRATE REEL PUT-UP. |
|-----------|------------------------|

**History**

|                      |  |
|----------------------|--|
| Update and Revision: | Revision Number: 0.352 Revision Date: 04-28-2020 |
|----------------------|--|

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