



**Product:** [29503](#)

VFD 300% Gnd, 3C+G #10 Str TC, XLPE Ins+PVC Gnd, OS+TC Brd w/#10 TC Drain, 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 10AWG (105x30) Tinned Copper, XLPE Insulation M4 Color Code+PVC Insulated Ground, Overall Beldfoil®+Tinned Copper Braid(85%) Shield w/10AWG Tinned Copper Drain, 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 | 10  | 105x30    | TC - Tinned Copper | 3                 |
| Ground    | 10  | 105x30    | TC - Tinned Copper | 1                 |

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

#### Insulation

| Material                     | Nominal Wall Thickness |
|------------------------------|------------------------|
| XLPE, XLPO, XLPE (Thermoset) | 0.045 in               |
| PVC - Polyvinyl Chloride     | 0.045 in               |

#### Outer Shield Material

| Type  | Layer | Material           | Material Trade Name | Coverage [%] | Drainwire Material | Drainwire AWG |
|-------|-------|--------------------|---------------------|--------------|--------------------|---------------|
| Tape  | 1     | Alum / Poly / Alum | Duofoil®            | 100%         | TC - Tinned Copper | 10            |
| Braid | 2     | Tinned Copper (TC) |                     | 85%          |                    |               |

#### Outer Jacket Material

| Material                 | Nominal Diameter | Nominal Wall Thickness |
|--------------------------|------------------|------------------------|
| PVC - Polyvinyl Chloride | 0.69 in          | 0.073 in               |

### Electrical Characteristics

#### Conductor DCR

| Nominal Conductor DCR |
|-----------------------|
| 0.988 Ohm/1000ft      |

#### Capacitance

| Nom. Capacitance Conductor to Conductor | Nom. Capacitance Conductor to Other Conductor to Shield |
|---|---|
| 29 pF/ft                                | 53 pF/ft  |

#### Inductance

| Nominal Inductance |
|--------------------|
| 0.184 µH/ft        |

#### Impedance

**Nominal Characteristic Impedance**

63 Ohm

**Current****Max. Recommended Current [A]**

40 Amps per Conductor at 30°C (per NEC)

**Voltage**

| UL Voltage Rating                        | Voltage Rating [V]            |
|--|-------------------------------|
| 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   |
| Operating Temp Range: | -40C To +90C Wet/Dry |
| Wet Temp Range:       | -40°C To +90 °C      |
| Dry Temp Range:       | -40°C To +90 °C      |

**Mechanical Characteristics**

|                             |                |
|-----------------------------|----------------|
| Bulk Cable Weight:          | 350 lbs/1000ft |
| Max. Pull Tension:          | 592 lbs        |
| Min Bend Radius/Minor Axis: | 5.5 in         |

**Standards**

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

**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 Vertical Tray Flame Test (70,000 BTU) |
| UL voltage rating: | 1000 V RMS (Flexible Motor Supply Cable)        |

**Part Number****Variants**

| Item #       | Color | Putup Type | Length | UPC          |
|--------------|-------|------------|--------|--------------|
| 29503 010100 | Black | Reel       | 100 ft | 612825136880 |

|               |       |      |          |              |
|---------------|-------|------|----------|--------------|
| 29503 010250  | Black | Reel | 250 ft   | 612825136910 |
| 29503 010500  | Black | Reel | 500 ft   | 612825136941 |
| 29503 0101000 | Black | Reel | 1,000 ft | 612825136897 |
| 29503 0105000 | Black | Reel | 5,000 ft | 612825136958 |

|           |  |
|-----------|--|
| 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: 0.346 Revision Date: 06-08-2020 |
|----------------------|--|

© 2020 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.