



Product: 29505F

VFD 100% Gnd, 3C #6 Str TC XLPO Ins + #6 Symm. Seg. Gnd (3 of #10) Str BC, OS+TC Brd, Blk TPE Jkt, 600V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable 1000V WTTC

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Product Description

Belden 100% Ground Extra Flexible VFD, 3 Conductor 6AWG (7x37x30) Tinned Copper XLPO Insulation M4 Color Code + 6AWG Symmetrical Segmented Ground (3 of 10AWG) Bare Copper Stranded, Overall Beldfoil®+Tinned Copper Braid(85%) Shield, Black TPE Outer Jacket, 600V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable 1000V WTTC 600V CIC TC SUN RES OIL RES I&II DIR BUR

Technical Specifications

Product Overview

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

Physical Characteristics (Overall)

Conductor

| Element | AWG | Stranding | Material | No. of Conductors |
|-------------|-----|-----------|--------------------|-------------------|
| | 6 | 7x37x30 | TC - Tinned Copper | 3 |
| Ground Wire | 10 | 105x30 | TC - Tinned Copper | 3 |

Conductor Count: 3

Insulation

| Material | Nominal Wall Thickness |
|----------------------------------|------------------------|
| XLPE - Cross Linked Polyethylene | 0.060 in |

Color Chart

| Number | Color |
|--------|----------------------|
| 1 | Black and Numbered 1 |
| 2 | Black and Numbered 2 |
| 3 | Black and Numbered 3 |

Outer Shield Material

| Type | Layer | Material | Material Trade Name | Coverage [%] |
|-------|-------|--------------------|---------------------|--------------|
| Tape | 1 | Aluminum/Polyester | Duofoil® | 100 % |
| Braid | 2 | TC - Tinned Copper | | 85 % |

Outer Jacket Material

| Material | Nominal Diameter | Nominal Wall Thickness |
|-------------------------------|------------------|------------------------|
| TPE - Thermoplastic Elastomer | 0.961 in | 0.093 in |

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR

.41 Ohm/1000ft

Capacitance

| Nom. Capacitance Conductor to Conductor | Nom. Capacitance Conductor to Other Conductor to Shield |
|---|---|
| 33 pF/ft | 60 pF/ft |

Inductance

Nominal Inductance

0.171 µH/ft

Impedance

Nominal Characteristic Impedance

56 Ohm

Current

Max. Recommended Current [A]

75 Amps per conductor @ 30°C (per NEC)

Voltage

UL Voltage Rating

1000 V RMS (Flexible Motor Supply Cable)

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 |

Mechanical Characteristics

| | |
|----------------------------------|------------------|
| Oil Resistance: | Yes - Oil Res II |
| Bulk Cable Weight: | 811 lbs/1000ft |
| Max Recommended Pulling Tension: | 1220 lbs |
| Min Bend Radius/Minor Axis: | 4.8 in |

Standards

| | |
|--------------------------|--------------------------------|
| NEC Articles: | 336 - ER |
| NEC/(UL) Specification: | TC-ER, WTTC, XHHW-2 |
| CEC/C(UL) Specification: | 600V Type CIC TC |
| Other Specification: | 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 |
| CA Prop 65 (CJ for Wire & Cable): | Yes |

Suitability

| | |
|------------------------------------|-----|
| Suitability - Indoor: | 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 | UPC |
|----------------|-------|--------------|
| 29505F 0101000 | Black | 612825373186 |

History

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| Update and Revision: | Revision Number: 0.220 Revision Date: 09-10-2019 |
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