



Part Number: 29502

1000V UL Flex Motor VFD, (3) 12 AWG (65x30) TC+Grd, XLP/PVC, Foil+TC Braid Shld, TC-ER

Product Description

Three 12 AWG stranded (65x30) tinned copper circuit conductors plus ground wire, cross-linked polyolefin insulation, overall Duofoil® (100% coverage) plus a tinned copper braid shield (85% coverage), PVC jacket.

Product Specifications

Technical Specifications

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

Construction and Dimensions

Conductor:

| Element | AWG | Stranding | Material | No. of Conductors |
|-------------|-----|-----------|--------------------|-------------------|
| | 12 | 65x30 | TC - Tinned Copper | 3 |
| Ground Wire | 12 | 65x30 | TC - Tinned Copper | |

| | |
|------------------------------------|---|
| Total Number of Conductors: | 3 |
|------------------------------------|---|

Insulation:

| Material | Nominal Wall Thickness |
|-------------------------------|------------------------|
| PVC - Polyvinyl Chloride | 0.045 in |
| XLP - Cross Linked Polyolefin | |

Color Chart 1:

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

Stranding:

| Lay Length |
|------------|
| Y mm |

Outershield 1:

| Type | Layer | Material | Material Trade Name | Coverage [%] | Drainwire Material | Drainwire AWG | Drainwire Construction n x D |
|-------|-------|------------------------------|---------------------|--------------|--------------------|---------------|------------------------------|
| Tape | 1 | Aluminum Foil-Polyester Tape | Duofoil® | 100 % | TC - Tinned Copper | 12 | 65x30 mm |
| Braid | 2 | TC - Tinned Copper | | 85 % | | | |

Outerjacket 1:

| Material | Nominal Diameter | Nominal Wall Thickness |
|--------------------------|------------------|------------------------|
| PVC - Polyvinyl Chloride | 0.63 in | 0.073 in |

Electrical Characteristics

Conductor DCR:

| Nominal Conductor DCR |
|-----------------------|
| 1.6 Ohm/1000ft |

Capacitance:

| Nom. Capacitance Conductor to Conductor | Nom. Capacitance Conductor to Other Conductor to Shield |
|---|---|
| 26 pF/ft | 47 pF/ft |

| | |
|-----------------------------------|-----------------------------------|
| Min Insulation Resistance: | 300 Megaohms/1000 ft. MOhm*1000ft |
|-----------------------------------|-----------------------------------|

Impedance:

| Nominal Characteristic Impedance |
|----------------------------------|
| 71 Ohm |

Current:

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

Inductance:

| Nominal Inductance |
|--------------------|
| 0.197 μ H/ft |

Voltage:

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

Use

| | |
|------------------------------------|---------|
| Suitability - Oil Resistance: | Yes |
| Suitability - Burial: | Yes |
| Suitability - Indoor: | Yes |
| Suitability - Outdoor: | Yes |
| Suitability - Sunlight Resistance: | Yes |
| Max Recommended Pulling Tension: | 336 lbs |

Safety

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

Temperature Range

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

Mechanical Characteristics

| | |
|-----------------------------|--------|
| Min Bend Radius/Minor Axis: | 6.3 in |
|-----------------------------|--------|

Part Number

Standards

| | |
|-----------------------------------|----------------------------------|
| CA Prop 65 (CJ for Wire & Cable): | CA Prop 65 (CJ for Wire & Cable) |
| CEC/C(UL) Specification: | CEC/C(UL) Specification |
| CSA AWM Specification: | CSA Specification |
| MII Order #39 (China RoHS): | MII Order #39 (China RoHS) |
| NEC Articles: | NEC Articles |
| NEC/(UL) Specification: | NEC/(UL) Specification |

| | |
|---------------------------------|-------------------------------|
| Other Specification: | Other Specification |
| PMSHA Specification: | PMSHA Specification |
| EU Directive Compliance: | EU Directive 2003/11/EC (BFR) |
| EU CE Mark: | EU CE Mark |

History

Product Variants

| Part Number | Color | Put-Up Type | Length |
|---------------|-------|-------------|---------|
| 29502 0101000 | BLACK | Reel | 1000 ft |
| 29502 010100 | BLACK | Reel | 100 ft |
| 29502 010250 | BLACK | Reel | 250 ft |
| 29502 0105000 | BLACK | Reel | 5000 ft |
| 29502 010500 | BLACK | Reel | 500 ft |

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