



# Product: <u>123107A</u> ☑

RS485, 2 Pr #22 Str TC, PE Ins, OS+TC Brd, PVC Jkt, AIA Armor, PVC Jkt, CM, PLTC

😭 Request Sample

# **Product Description**

RS-485, 2 Pair 22AWG (7x30) Tinned Copper, PE Insulation, Overall Beldfoil®+Tinned Copper Braid(65%) Shield, PVC Inner Jacket, Aluminum Interlock Armor, PVC Outer Jacket, CM, PLTC

# **Technical Specifications**

#### **Product Overview**

| Suitable Applications: | exposure to rodent, crush, or cut through force, burial, serial communication (RS-485 standard) comprising of PLCs, VFDs, HMIs, motors, RTU, SCADA, etc. within noisy environments over long distance, outdoor such as solar, lighting, etc. |
|------------------------|--|

# **Construction Details**

| Element | No. of Elements | Size   | Stranding | Material           |
|---------|-----------------|--------|-----------|--------------------|
| Pair(s) | 2               | 22 AWG | 7x30      | TC - Tinned Copper |

### Insulation

| Element | Material                 | Nom. Thickness     | Nom. Insulation Diameter | Color Code   | Notes |
|---------|--------------------------|--------------------|--------------------------|--|-------|
| Pair(s) | PE - Polyethylene (Foam) | 0.025 in (0.64 mm) | 0.079 in (2.0 mm)        | White/Blue Stripe & Blue/White Stripe, White/Orange Stripe & Orange/White Stripe | HDPE  |

#### Outer Shield

| Shield Type | Material                | Coverage | Drainwire Type   |
|-------------|-------------------------|----------|------------------|
| Таре        | Bi-Laminate (Alum+Poly) | 100%     | 22 AWG (7x30) TC |
| Braid       | Tinned Copper (TC)      | 65%      |                  |

#### Inner Jacket

| Material                 | Nom. Thickness    | Nom. Diameter      |
|--------------------------|-------------------|--------------------|
| PVC - Polyvinyl Chloride | 0.053 in (1.3 mm) | 0.350 in (8.89 mm) |

#### Armor

| Armor Type & Material          | Armor Thickness    | Armor Material Diameter |
|--------------------------------|--------------------|-------------------------|
| AIA - Aluminum Interlock Armor | 0.025 in (0.64 mm) | 0.560 in (14.2 mm)      |

#### Outer Jacket

| Material                             | Nom. Thickness    | Nom. Diameter      |
|--------------------------------------|-------------------|--------------------|
| PVC - Polyvinyl Chloride             | 0.045 in (1.1 mm) | 0.690 in (17.5 mm) |
| Overall Cable Diameter<br>(Nominal): | 0.690 in (17.5    | i mm)              |

# **Electrical Characteristics**

Electricals

| Element  | Nom. Conductor<br>DCR                                | Nom. Capacitance<br>Cond-to-Cond | Nom. Capacitance Cond-to-Other (Conds +<br>Shield) | Nom. Characteristic<br>Impedence | Nom. Velocity of<br>Prop. | Max. Current                     |
|----------|--|----------------------------------|--|----------------------------------|---------------------------|----------------------------------|
| Pair(s)  | 18.7 Ohm/1000ft                                      | 11 pF/ft (36 pF/m)               | 20.9 pF/ft   | 120 Ohm                          | 78%                       | 2.7 Amps per Conductor at<br>25℃ |
| Nom. Out | Nom. Outer Shield DCR: 2.95 Ohm/1000ft (9.68 Ohm/km) |                                  |  |                                  |                           |                                  |

# High Frequency (Nominal/Typical)

| Element | Frequency [MHz] | Nom. Insertion Loss (Attenuation |
|---------|-----------------|----------------------------------|
| Pair(s) | 1               | 0.5 dB/100ft                     |

#### Voltage

UL Voltage Rating 300 V

# **Mechanical Characteristics**

#### Temperature

| UL Temperature | Operating      | Installation   |
|----------------|----------------|----------------|
| 60°C           | -40°C to +60°C | -20°C To +60°C |

-40C

# Table Notes:

| Bend Radius                   |                 |
|-------------------------------|-----------------|
| Stationary Min. Installation  | Min.            |
| 8.5 in (220 mm) 8.5 in (220 m | nm)             |
| Max. Pull Tension:            | 200 lbs (91 kg) |
| Bulk Cable Weight:            | 172 lbs/1000ft  |

#### **Standards and Compliance**

| Environmental Suitability:          | Indoor, Outdoor, Sunlight Resistance  |
|-------------------------------------|---|
| Flammability / Reaction to<br>Fire: | UL 1685 UL Loading, IEEE 1202   |
| NEC / UL Compliance:                | Article 725, Article 800, CM, PLTC  |
| CEC / C(UL) Compliance:             | CMG, HLBCD  |
| European Directive<br>Compliance:   | EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE) |
| APAC Compliance:                    | China RoHS II (GB/T 26572-2011)   |

# History

| Update and Revision: | Revision Number: 0.401 Revision Date: 04-30-2024 |  |
|----------------------|--|--|

#### **Part Numbers**

#### Variants

| ltem #          | Color | Putup Type | Length   | UPC          | Footnote |
|-----------------|-------|------------|----------|--------------|----------|
| 123107A 0105000 | Black | Reel       | 5,000 ft | 612825109631 | CZ       |

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