



**Product:** [3107A](#)

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

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### Product Description

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

### Technical Specifications

#### Product Overview

|                        |  |
|------------------------|--|
| Suitable Applications: | harsh environment, IIoT, factory or process automation, video, audio, data communication, etc. |
|------------------------|--|

#### Construction Details

##### Conductor

| 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   |
|-------------|-------------------------|----------|------------------|
| Tape        | Bi-Laminate (Alum+Poly) | 100%     | 22 AWG (7x30) TC |
| Braid       | Tinned Copper (TC)      | 65%      |                  |

##### Outer Jacket

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

|                                   |                    |
|-----------------------------------|--------------------|
| Overall Cable Diameter (Nominal): | 0.350 in (8.89 mm) |
|-----------------------------------|--------------------|

#### Electrical Characteristics

##### Electricals

| Element | Nom. Conductor DCR | Nom. Capacitance Cond-to-Cond | Nom. Capacitance Cond-to-Other (Conds + Shield) | Nom. Characteristic Impedance | Nom. Velocity of Prop. | Max. Current                   |
|---------|--------------------|-------------------------------|---|-------------------------------|------------------------|--------------------------------|
| Pair(s) | 18.2 Ohm/1000ft    | 11 pF/ft (36 pF/m)            | 20.9 pF/ft                                      | 120 Ohm                       | 78%                    | 4.8 Amps per Conductor at 30°C |

|                        |                                 |
|------------------------|---------------------------------|
| Nom. Outer Shield DCR: | 3.663 Ohm/1000ft (12.02 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 (CM, PLTC)  |

#### Mechanical Characteristics

## Temperature

| UL Temperature | Operating      |
|----------------|----------------|
| 60°C           | -20°C to +60°C |

## Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 4.2 in (110 mm) | 4.2 in (110 mm)   |

|                    |                |
|--------------------|----------------|
| Max. Pull Tension: | 80 lbs (36 kg) |
| Bulk Cable Weight: | 58 lbs/1000ft  |

## Standards and Compliance

|                                  |   |
|----------------------------------|---|
| Environmental Suitability:       | Indoor, Outdoor, Sunlight Resistance, Oil Resistance  |
| Flammability / Reaction to Fire: | UL 1685 UL Loading, IEC 60332-1-2   |
| CPR Compliance:                  | CPR Euroclass: Eca; CPR UKCA Class: Eca   |
| NEC / UL Compliance:             | Article 725, Article 800, CM, PLTC  |
| CEC / C(UL) Compliance:          | CM  |
| European Directive 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) |
| UK Regulation Compliance:        | UKCA Mark   |
| APAC Compliance:                 | China RoHS II (GB/T 26572-2011)   |
| Other Standard Compliance(s):    | DMX-512   |

## Product Notes

|        |  |
|--------|--|
| Notes: | Oil Resistance: Passes Oil Res II Per UL1277, Table 10.17. For CPE jacketed version order YR46792. |
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## History

|                      |  |
|----------------------|--|
| Update and Revision: | Revision Number: 0.596 Revision Date: 12-22-2023 |
|----------------------|--|

## Part Numbers

### Variants

| Item #        | Color | Putup Type | Length   | UPC/EAN       | Footnote |
|---------------|-------|------------|----------|---------------|----------|
| 3107A.00305   | Black | Reel       | 305 m    | 8719605005953 |          |
| 3107A 0101000 | Black | Reel       | 1,000 ft | 612825141686  | C        |
| 3107A.001220  | Black | Reel       | 1,220 m  | 8719605005939 |          |
| 3107A.001525  | Black | Reel       | 1,525 m  | 8719605005946 |          |
| 3107A 0105000 | Black | Reel       | 5,000 ft | 612825141709  | C N      |
| 3107A.01305   | Green | Reel       | 305 m    | 8719605005960 |          |

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