



Product: [3109A](#)

RS485, 4 Pr #22 Str TC, PO Ins, OS+TC Brd, PVC Jkt, CM

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Product Description

RS-485, 4 Pair 22AWG (7x30) Tinned Copper, PO Insulation, Overall Beldfoil®+Tinned Copper Braid(65%) Shield, PVC Outer Jacket, CM

Technical Specifications

Physical Characteristics (Overall)

Conductor

| AWG | Stranding | Material | Nominal Diameter | No. of Pairs |
|-----|-----------|--------------------|------------------|--------------|
| 22 | 7x30 | TC - Tinned Copper | 0.03 in | 4 |

Conductor Count: 8

Insulation

| Material | Material Trade Name | Nominal Wall Thickness |
|--|---------------------|------------------------|
| FHDPE - Foamed High Density Polyethylene | Datalene® | 0.0025 in |

Color Chart

| Number | Color |
|--------|---|
| 1 | White/Blue Ringband Stripe & Blue/White Ringband Stripe |
| 2 | White/Orange Ringband Stripe & Orange/White Ringband Stripe |
| 3 | White/Green Ringband Stripe & Green/White Ringband Stripe |
| 4 | White/Brown Ringband Stripe & Brown/White Ringband Stripe |

Outer Shield Material

| Type | Layer | Material | Material Trade Name | Coverage [%] | Drainwire Material | Drainwire Diameter | Drainwire AWG | Drainwire Construction n x D |
|-------|-------|--------------------|---------------------|--------------|--------------------|--------------------|---------------|------------------------------|
| Tape | 1 | Aluminum/Polyester | Beldfoil® | 100 % | TC - Tinned Copper | 0.03 mm | 22 | 7x30 mm |
| Braid | 2 | TC - Tinned Copper | | 65 % | | | | |

Outer Jacket Material

| Material | Nominal Diameter | Nominal Wall Thickness |
|--------------------------|------------------|------------------------|
| PVC - Polyvinyl Chloride | 0.448 in | 0.053 in |

Electrical Characteristics

Conductor DCR

| Nominal Conductor DCR | Nominal Outer Shield DCR |
|-----------------------|--------------------------|
| 14.7 Ohm/1000ft | 2.53 Ohm/1000ft |

Capacitance

| Nom. Capacitance Conductor to Conductor | Nom. Capacitance Conductor to Other Conductor to Shield |
|---|---|
| 11 pF/ft | 20.9 pF/ft |

Inductance

| Element | Nominal Inductance |
|---------|--------------------|
| Pair | 0.225 µH/ft |

Impedance

Nominal Characteristic Impedance

120 Ohm

High Frequency (Nominal/Typical)**Nom. Insertion Loss**

0.5 dB/100ft

Delay**Nominal Velocity of Propagation (VP) [%]**

78 %

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

2.7 Amps per conductor @ 25°C

Voltage**UL Voltage Rating**

300 V RMS

| | |
|------------------------------------|--|
| Electrical Characteristics Notes: | Attenuation: 0.5 dB/100ft. @ 1MHz |
| Other Electrical Characteristic 2: | Input/Unfitted Impedance: 120 Ohm @ 1MHz |

Temperature Range

| | |
|-----------------------|----------------|
| Non-UL Temp Rating: | 60°C |
| UL Temp Rating: | 80°C |
| Operating Temp Range: | -20°C To +60°C |

Mechanical Characteristics

| | |
|----------------------------------|-----------------|
| Oil Resistance: | Yes per UL1277 |
| Bulk Cable Weight: | 96.4 lbs/1000ft |
| Max Recommended Pulling Tension: | 100 lbs |
| Min Bend Radius/Minor Axis: | 5.5 in |

Standards

| | |
|--------------------------|----------|
| NEC Articles: | 725, 800 |
| NEC/(UL) Specification: | CM, PLTC |
| CEC/C(UL) Specification: | CM |
| CPR Euroclass: | Eca |

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 RoHS Compliance Date (yyyy-mm-dd): | 2005-10-01 |
| CA Prop 65 (CJ for Wire & Cable): | Yes |
| MII Order #39 (China RoHS): | Yes |

Suitability

| | |
|------------------------|-----|
| Suitability - Indoor: | Yes |
| Suitability - Outdoor: | Yes |

Flammability, LSOH, Toxicity Testing

| | |
|-----------------------|-------------------|
| UL Flammability: | UL1685 UL Loading |
| CSA Flammability: | FT1 |
| ISO/IEC Flammability: | IEC 60332-1-2 |
| UL voltage rating: | 300 V RMS |

Plenum/Non-Plenum

Plenum (Y/N): No

Part Number

Variants

| Item # | Color | UPC | Length | Footnote |
|---------------|-------|--------------|----------|----------|
| 3109A 0101000 | Black | 612825141808 | 1,000 ft | C |
| 3109A 0102000 | Black | 612825141815 | 2,000 ft | C |
| 3109A 0105000 | Black | 612825141822 | 5,000 ft | |

Footnote: C - CRATE REEL PUT-UP.

Product Notes

Notes: For CPE jacketed version order Part No. YR44768.

History

Update and Revision: Revision Number: 0.314 Revision Date: 12-19-2019

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