Detailed Specifications & Technical Data



3106A Multi-Conductor - EIA Industrial RS-485 PLTC/CM



For more Information please call

1-800-Belden1



General Description:

22 AWG stranded (7x30) tinned copper conductors, Datalene® insulation, twisted pairs, overall Beldfoil® shield (100% coverage) plus a tinned copper braid (65% coverage), drain wire, UV resistant PVC jacket.

| | | coverage), drain wire, o'v resistant i vo jacket. | | | | |
|--|------------------------------------|---|--|--|--|--|
| Physical Characteristics (Ov | verall) | | | | | |
| Conductor | | | | | | |
| AWG: | | | | | | |
| | nding Conductor Material Dia. (mm) | | | | | |
| 1 1 22 7x30 | TC - Tinned Copper 0.762 | | | | | |
| Total Number of Conductors: | 3 | | | | | |
| Insulation Insulation Material: | | | | | | |
| Insulation Trade Name Insulation Material | | | | | | |
| Datalene® FHDPE - | Foam High Density Polyethylene | | | | | |
| Outer Shield | | | | | | |
| Outer Shield Material: | | | | | | |
| Layer # Outer Shield Trade Name | | Coverage (%) | | | | |
| 1 Beldfoil® | Tape Aluminum Foil-Polyester Tape | | | | | |
| 2 | Braid TC - Tinned Copper | 65.000 | | | | |
| Outer Jacket Material PVC - Polyvinyl Chloride Overall Cable Overall Cabling Color Code Cha Number Color 1 White/Orange Stripe 2 Orange/White Stripe 3 Blue/White Stripe | art: | | | | | |
| Overall Nominal Diameter: | 7.620 mm | | | | | |
| Pair Pair Lay Length & Direction: Lay Length (mm) 76.2 | | | | | | |
| Mechanical Characteristics | (Overall) | | | | | |
| Operating Temperature Range | e: -20°C To +6 | 50°C | | | | |
| New III, Tennessee to an Definition | 2000 | | | | | |

Bulk Cable Weight: 78.875 Kg/Km

Non-UL Temperature Rating:

Max. Recommended Pulling Tension: 289.133 N

60°C

Detailed Specifications & Technical Data



METRIC MEASUREMENT VERSION

3106A Multi-Conductor - EIA Industrial RS-485 PLTC/CM

| Min. Bend Radius/Minor Axis: | 76.200 mm |
|---|--|
| Applicable Specifications and Agency Co | mpliance (Overall) |
| Applicable Standards & Environmental Progr | ams |
| NEC/(UL) Specification: | CM, PLTC |
| CEC/C(UL) Specification: | СМ |
| EU Directive 2011/65/EU (ROHS II): | Yes |
| EU CE Mark: | Yes |
| EU Directive 2000/53/EC (ELV): | Yes |
| EU Directive 2002/95/EC (RoHS): | Yes |
| EU RoHS Compliance Date (mm/dd/yyyy): | 10/01/2005 |
| EU Directive 2002/96/EC (WEEE): | Yes |
| EU Directive 2003/11/EC (BFR): | Yes |
| CA Prop 65 (CJ for Wire & Cable): | Yes |
| MII Order #39 (China RoHS): | Yes |
| Flame Test | |
| UL Flame Test: | UL1685 UL Loading |
| CSA Flame Test: | FT1 |
| Suitability | |
| Sunlight Resistance: | Yes |
| Oil Resistance: | Yes - Oil Res II |
| Plenum/Non-Plenum | |
| Plenum (Y/N): | No |
| Surface Printing (Overall) | |
| Surface Printing: | BELDEN 3106A E34972 3C22 SHIELDED (UL) CM OR PLTC SUN RES OR C(UL) CM FT4 |
| Electrical Characteristics (Overall) | |
| Nom. Characteristic Impedance: | |
| Description 120 | |
| Nom. Inductance: Inductance (µH/m) 0.666043 | |
| Nom. Capacitance Conductor to Conductor: | |
| Capacitance (pF/m) 36.091 | |
| Nom. Capacitance Cond. to Other Conductor & Shi | eld: |
| Capacitance (pF/m) 68.5729 | |
| Nominal Velocity of Propagation: VP (%) 78 | |
| Nom. Conductor DC Resistance: DCR @ 20°C (Ohm/km) 48.2307 | |
| Nominal Outer Shield DC Resistance: DCR @ 20°C (Ohm/km) | |

Detailed Specifications & Technical Data



METRIC MEASUREMENT VERSION

3106A Multi-Conductor - EIA Industrial RS-485 PLTC/CM

10.926

Nom. Attenuation:

 Description
 Freq. (MHz)
 Start Freq. (MHz)
 Stop Freq. (MHz)
 Attenuation (dB/100m)

 1
 1
 1.6405

Max. Operating Voltage - UL:

Voltage 300 V RMS (NEC Type PLTC) 300 V RMS (NEC Type CM)

Max. Recommended Current:

Current

2.7 Amps per conductor @ 25°C

Other Electrical Characteristic 1:

Input Impedance/Unfitted Impedance .5 - 10 MHZ, 120 +-12 Ohms

Notes (Overall)

Notes: Oil Resistance: Passes Oil Res II Per UL1277, Table 10.17. For CPE jacketed version order YR46721.

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|---------------|----------|-------------|-------|-------|-------------------------|
| 3106A 0101000 | 1,000 FT | 52.000 LB | BLACK | С | #22 FS PR,1#22PVCBRDPVC |
| 3106A 010500 | 500 FT | 27.000 LB | BLACK | С | #22 FS PR,1#22PVCBRDPVC |
| 3106A 0105000 | 5,000 FT | 255.000 LB | BLACK | CN | #22 FS PR,1#22PVCBRDPVC |

Notes:

C = CRATE REEL PUT-UP

N = FINAL PUT-UP LENGTH MAY VARY -0% TO +10% FROM LENGTH SHOWN.

Revision Number: 4 Revision Date: 03-10-2017

© 2019 Belden, Inc All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described herein are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with EU RoHS (Directive 2002/95/EC, 27-Jan-2003). Material manufactured prior to the compliance date may be in stock at Belden facilities and in our Distributor's inventory. The information provided in this Product Disclosure, and the identification of materials listed as reportable or restricted within the Product Disclosure, is correct to the best of Belden's knowledge, information, and belief at the date of its publication. The information provided in this Product Disclosure is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. This Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product. Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 2014/35/EU).