# **Detailed Specifications & Technical Data**

### **ENGLISH MEASUREMENT VERSION**



## 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.

3

## **Physical Characteristics (Overall)**

## Conductor

AWG:

# Conductors	# Pairs	AWG	Stranding	Conductor Material	Dia. (in.)
1	1	22	7x30	TC - Tinned Copper	.030

Total Number of Conductors:

#### Insulation

Insulation Material:

Insulation Trade Name	Insulation Material				
Datalene®	FHDPE - Foam High Density Polyethylene				

#### **Outer Shield**

Outer Shield Material:

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100.000
2		Braid	TC - Tinned Copper	65.000

## Outer Shield Drain Wire AWG:

AWG	Stranding	Drain Wire Conductor Material
22	7x30	TC - Tinned Copper

### **Outer Jacket**

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

### **Overall Cable**

Overall Cabling Color Code Chart:

Number	Color
1	White/Orange Stripe
2	Orange/White Stripe
3	Blue/White Stripe

**Overall Nominal Diameter:** 

0.300 in.

#### Pair

Pair Lay Length & Direction:



Med	Mechanical Characteristics (Overall)					
	Operating Temperature Range:	-20°C To +60°C				
	Non-UL Temperature Rating:	60°C				
	Bulk Cable Weight:	53 lbs/1000 ft.				
	Max. Recommended Pulling Tension:	65 lbs.				
	Min. Bend Radius/Minor Axis:	3 in.				

## **Applicable Specifications and Agency Compliance (Overall)**

## Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CM, PLTC
CEC/C(UL) Specification:	CM
EU Directive 2011/65/EU (ROHS II):	Yes

Page 1 of 3 03-13-2017

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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)

## **Electrical Characteristics (Overall)**

Nom. Characteristic Impedance:

Description 120

Nom. Inductance:

Inductance (µH/ft)
.203

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)
11.0

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/ft) 20.9

Nominal Velocity of Propagation:

**VP (%)** 78

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft) 14.7

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft) 3.330

Nom. Attenuation:

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

1 .5

Max. Operating Voltage - UL:

300 V RMS (NEC Type PLTC) 300 V RMS (NEC Type CM) Max. Recommended Current:

2.7 Amps per conductor @ 25°C

Other Electrical Characteristic 1: Input Impedance .5 - 10 MHZ, 120 +-12 Ohms

## Notes (Overall)

Current

 $\textbf{Notes:} \ \ \text{Oil Resistance: Passes Oil Res II Per UL1277, Table 10.17. For CPE jacketed version order YR46721.}$ 

## **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

Page 2 of 3 03-13-2017

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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.

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Page 3 of 3