Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION



3107A Multi-Conductor - EIA Industrial RS-485 PLTC/CM



For more Information please call

1-800-Belden1



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.

Physical Characteristics (Overall)

Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material	Dia. (mm)
2	22	7x30	TC - Tinned Copper	0.762

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	Nom. Wall Thickness (mm)
PVC - Polyvinyl Chloride	1.346

Overall Cable

Overall Cabling Color Code Chart:

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

Overall Nominal Diameter: 8.890 mm

Mechanical Characteristics (Overall)

Operating Temperature Range:	-20°C To +60°C	
Non-UL Temperature Rating:	60°C	
Bulk Cable Weight:	108.639 Kg/Km	
Max. Recommended Pulling Tension:	355.856 N	
Min. Bend Radius/Minor Axis:	88.900 mm	

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification: PLTC

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CEC/C(UL) Specification:	CM
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:

Impedance (Ohm)
120

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/m) 36.091

Nom. Capacitance Cond. to Other Conductor & Shield:

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) 5.9058

Nom. Attenuation:

DescriptionFreq. (MHz)Start Freq. (MHz)Stop Freq. (MHz)Attenuation (dB/100m)11.6405

Max. Operating Voltage - UL:

Voltage 300 V RMS

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

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Notes (Overall)

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

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
3107A 0101000	305 MT	28.123 KG	BLACK	С	2 PR #22 FHDPE SH PVC
3107A 0104000	1,219 MT	116.120 KG	BLACK	С	2 PR #22 FHDPE SH PVC
3107A 0105000	1,524 MT	149.686 KG	BLACK	CN	2 PR #22 FHDPE SH PVC

Notes:

C = CRATE REEL PUT-UP

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

Revision Number: 1 Revision Date: 08-17-2012

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