



Product: [121872A](#)

DataTuff® Cat 6, 4 Bonded-Pr #23 Sol BC, PO Ins, PVC Jkt, AIA Armor, PVC Jkt, CMG CM, -40C

[Request Sample](#)

Product Description

Industrial Ethernet Cat 6, 4 Bonded-Pair 23AWG (Solid) Bare Copper, PO Insulation, PVC Inner Jacket, Aluminum Interlock Armor, PVC Outer Jacket, CMG CM, -40C

Technical Specifications

Product Overview

Suitable Applications:	harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc. exposure to rodent, crush, or cut through force,
Patent:	This product has one or more applicable patents. More information on patents can be found at https://www.belden.com/patents .

Construction Details

Conductor

Element	Size	Stranding	Material	No. of Pairs	No. of Elements
Pair(s)	23 AWG	Solid	BC - Bare Copper	4	4

Insulation

Material	Color Code
PO - Polyolefin	White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown

Bonded-Pair:	Yes
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Inner Jacket

Material	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.365 x 0.165 in	Yes

Armor

Armor Type & Material
AIA - Aluminum Interlock Armor

Outer Jacket

Material	Nom. Diameter
PVC - Polyvinyl Chloride	0.725 in (18.4 mm)

Overall Cable Diameter (Nominal):	0.725 in (18.4 mm)
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Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
93.8 Ohm/km (28.6 Ohm/1000ft)	330 pF/100m

Delay

Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
510 ns/100m	25 ns/100m	70%

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACR [dB]	Min. PSACR [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Max./Min. Input Impedance (unFitted) [Ohm]	Max./Min. Fitted Impedance [Ohm]
1	1.9 dB/100m	74.3	72.3	72.4	70.4	67.8	64.8	20	100 ± 12	100 ± 15
4	3.7 dB/100m	65.3	63.3	61.6	59.6	55.7	52.7	23	100 ± 12	100 ± 15
8	5.3 dB/100m	60.3	58.8	55.5	53.5	49.7	46.7	24.5	100 ± 12	100 ± 15
10	5.9 dB/100m	59.3	57.3	53.4	51.4	47.8	44.8	25	100 ± 12	100 ± 15
16	7.5 dB/100m	56.3	54.3	48.7	46.7	43.7	40.7	25	100 ± 12	100 ± 8
20	8.4 dB/100m	54.8	52.8	46.4	44.4	41.7	38.7	25	100 ± 12	100 ± 8
25	9.5 dB/100m	53.4	51.4	43.9	41.9	39.8	36.8	24.3	100 ± 15	100 ± 8
31.25	10.6 dB/100m	51.9	49.9	41.2	39.2	37.9	34.9	23.6	100 ± 15	100 ± 8
62.5	15.4 dB/100m	47.4	45.4	32	30	31.8	28.8	21.5	100 ± 15	100 ± 8
100	19.8 dB/100m	44.3	42.3	24.5	22.5	27.8	24.8	21	100 ± 15	
155	25.1 dB/100m	41.5	39.5	16.3	14.3	23.9	20.9	21	100 ± 15	
200	29.0 dB/100m	39.9	37.9	10.8	10	21.7	18.7	21	100 ± 15	
250	32.8 dB/100m	38.3	36.3	5.5	3.5	19.8	16.8	18	100 ± 20	
300	35.2 dB/100m	37.2	34.2	0.7	0	18.2	15.2	18	100 ± 20	
310	37.1 dB/100m	36.9	34.9	0		17.9	14.9	18	100 ± 20	
350	39.8 dB/100m	36.2	34.2			16.9	13.9	17	100 ± 22	
400	43.0 dB/100m	35.3	33.3			15.7	12.7	14	100 ± 32	
500	49.0 dB/100m	33.8	31.8			13.8	10.8	14	100 ± 32	

Voltage

UL Voltage Rating	Voltage Rating
300 V (CM)	300 V (CMG-HL)

Mechanical Characteristics

Temperature

UL Temperature	Operating	Installation	Storage
75°C	-40°C To +75°C	-25°C To +75°C	-40°C To +85°C

Bend Radius

Stationary Min.
8.25 in (210 mm)

Max. Pull Tension:	200 lbs (91 kg)
Bulk Cable Weight:	172 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor (Not Riser or Plenum), Indoor, Outdoor, Sunlight Resistance, Oil Resistance, Aerial - When supported by messenger wire
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 800, CM
CEC / C(UL) Compliance:	CMG, HL, CSA CMG, HL, -40C
IEEE Compliance:	IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
Data Category:	Category 6
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 6
European Directive Compliance:	EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16
UK Regulation Compliance:	UKCA Mark
APAC Compliance:	China RoHS II (GB/T 26572-2011)

Product Notes

Notes:	US Patent #'s 5606151; 5734126; 5821467 **Values above 350 MHz are information only. Operating temperatures are subject to length de-rating. Cable passes -40C Cold Bend per UL 1581.
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History

Update and Revision:	Revision Number: 0.599 Revision Date: 12-12-2023
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Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC	Footnote
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121872A 0102000				612825109044	
121872A J225000				612825364733	
121872A 0101000	Black	Reel	1,000 ft	612825109037	C Z
121872A J221000	Blue, Strong	Reel	1,000 ft	612825109013	
121872A 0081000	Gray	Reel	1,000 ft	612825109020	C Z

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