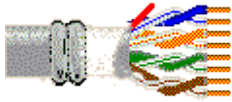


121872A Multi-Conductor - Category 6 DataTuff® Twisted Pair Cable

For more Information
please call

1-800-Belden1



Description:

23 AWG Bonded-Pairs solid bare copper conductors, polyolefin insulation, PVC inner jacket, aluminum interlocked armor, industrial grade PVC jacket. Sequential marking at one meter intervals.

Usage (Overall)

Suitable Applications:

Industrial Ethernet Cable, Harsh Environments, 350 MHz Enhanced Category 6, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio, AES51, RS-422, RJ-45 Compatible, Armored

Physical Characteristics (Overall)

Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material	Dia. (mm)
4	23	Solid	BC - Bare Copper	0.5588

Insulation

Insulation Material:

Insulation Material	Wall Thickness (mm)	Dia. (mm)
PO - Polyolefin	0.2286	0.9652

Inner Jacket

Inner Jacket Material:

Inner Jacket Material	Nom. Dia. (mm)
PVC - Polyvinyl Chloride	.365 x .165

Outer Shield

Outer Shield Material:

Outer Shield Material
Unshielded

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

Outer Jacket over Armor (y/n): Yes

Armor

Armor Type: Interlocked

Armor Material: Aluminum

Overall Cabling

Overall Nominal Diameter: 17.475 mm

Pair

Pair Color Code Chart:

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

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Mechanical Characteristics (Overall)

Installation Temperature Range:	-25°C To +75°C
Operating Temperature Range:	-40°C To +75°C
Bulk Cable Weight:	229.183 Kg/Km
Max. Recommended Pulling Tension:	889.640 N
Min. Bend Radius (Install)/Minor Axis:	209.550 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CM
CEC/C(UL) Specification:	CMG, HL
Other Standards:	11801 Category 6
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	01/01/2006
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
Telecommunications Standards:	Category 6 - TIA 568.B.2-1

Flame Test

UL Flame Test:	UL1666 Vertical Tray
CSA Flame Test:	FT4

Plenum/Non-Plenum

Plenum (Y/N):	No
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Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

Capacitance (pF/m)

49.215

Maximum Capacitance Unbalance (pF/100 m): 49.2

Nominal Velocity of Propagation:

VP (%)

70

Maximum Delay:

Delay (ns/100 m)

510 @ 100MHz

Max. Delay Skew:

Delay Skew (ns/100 m)

25

Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)

9

Max. Operating Voltage - UL:

Voltage

300 V RMS

Maximum DCR Unbalanced:

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DCR Unbalance @ 20°C (%)

3

Electrical Characteristics-Premise (Overall)

Premise Cable Electrical Table 1:

Freq. (MHz)	Max. Attenuation (dB/100 m)	Min. NEXT (dB)	Min. PSNEXT (dB)	Min. ACR (dB)	Min. PSACR (dB)	Min RL (dB)
1	1.9	74.3	72.3	70	70	20.0
4	3.7	65.3	63.3	59	59	23.0
8	5.3	60.3	58.8	53	53	24.5
10	5.9	59.3	57.3	51	51	25.0
16	7.5	56.3	54.3	46	46	25.0
20	8.4	54.8	52.8	44	44	25.0
25	9.5	53.4	51.4	42	42	24.3
31.25	10.6	51.9	49.9	39	39	23.6
62.5	15.4	47.4	45.4	30	30	21.5
100	19.8	44.3	42.3	25	25	21.0
155	25.1	41.5	39.5	14	14	21.0
200	29.0	39.9	37.9	10	10	21.0
250	32.8	38.3	36.3	3	3	18.0
300	35.2	37.2	34.2	0	0	18.0
310	37.1	36.9	34.9			18.0
350	39.8	36.2	34.2			17.0
400	43.0	35.3	33.3			14.0
500	49.0	33.8	31.8			14.0

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
1	100 ± 12	100 ± 15	67.8	64.8
4	100 ± 12	100 ± 15	55.7	52.7
8	100 ± 12	100 ± 15	49.7	46.7
10	100 ± 12	100 ± 15	47.8	44.8
16	100 ± 12	100 ± 8	43.7	40.7
20	100 ± 12	100 ± 8	41.7	38.7
25	100 ± 15	100 ± 8	39.8	36.8
31.25	100 ± 15	100 ± 8	37.9	34.9
62.5	100 ± 15	100 ± 8	31.8	28.8
100	100 ± 15	100 ± 8	27.8	24.8
155	100 ± 15	100 ± 8	23.9	20.9
200	100 ± 15	100 ± 8	21.7	18.7
250	100 ± 20	100 ± 8	19.8	16.8
300	100 ± 20	100 ± 8	18.2	15.2
310	100 ± 20	100 ± 8	17.9	14.9
350	100 ± 22	100 ± 8	16.9	13.9
400	100 ± 32	100 ± 8	15.7	12.7
500	100 ± 32	100 ± 8	13.8	10.8

Notes (Overall)

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.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
121872A J221000	305 MT	99.337 KG	BLUE, STRONG		1872A ALUM ARMOR PVC
121872A 0052500	762 MT	206.385 KG	GREEN, DARK		1872A ALUM ARMOR PVC - SPECIAL
121872A 0081000	305 MT	99.337 KG	GRAY	C Z	4 PR 24 ARM PVC CABLE
121872A 0101000	305 MT	99.337 KG	BLACK	C Z	4 PR 24 ARM PVC CABLE
121872A 0105000	1,524 MT	498.954 KG	BLACK		1872A ALUM ARMOR PVC - SPECIAL

Notes:

C = CRATE REEL PUT-UP.

Z = FINAL PUT-UP LENGTH MAY VARY (+ OR -) 10% FOR SPOOLS OR REELS AND(+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

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