

11872A Multi-Conductor - Category 6 DataTuff® Twisted Pair Cable



For more Information
please call

1-800-Belden1



General Description:

23 AWG Bonded-Pair solid bare copper conductors, polyolefin insulation, PVC inner jacket, rip cord, industrial grade PVC outer jacket. Sequential marking at two foot 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

Physical Characteristics (Overall)

Conductor

AWG:

| # Pairs | AWG | Stranding | Conductor Material | Dia. (in.) |
|---------|-----|-----------|--------------------|------------|
| 4 | 23 | Solid | BC - Bare Copper | .022 |

Total Number of Conductors: 8

Insulation

Insulation Material:

| Insulation Material | Wall Thickness (in.) | Dia. (in.) |
|---------------------|----------------------|------------|
| PO - Polyolefin | .009 | .038 |

Inner Jacket

Inner Jacket Material:

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

Inner Jacket Ripcord: Yes

Outer Shield

Outer Shield Material:

| Outer Shield Material |
|-----------------------|
| Unshielded |

Outer Jacket

Outer Jacket Material:

| Outer Jacket Material | Nom. Wall Thickness (in.) |
|--------------------------|---------------------------|
| PVC - Polyvinyl Chloride | .035 |

Outer Jacket Ripcord: Yes

Overall Cable

Overall Nominal Diameter: 0.475 x 0.265 in.

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 |

Mechanical Characteristics (Overall)

Installation Temperature Range: -10°C To +75°C

Operating Temperature Range: -25°C To +75°C

Bulk Cable Weight: 59 lbs/1000 ft.

Max. Recommended Pulling Tension: 45 lbs.

Min. Bend Radius/Minor Axis: 0.100 in.

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Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

| | |
|---------------------------------------|------------|
| NEC(UL) Specification: | CM, UL444 |
| CEC/C(UL) Specification: | CM |
| EU Directive 2011/65/EU (ROHS II): | Yes |
| EU Directive 2000/53/EC (ELV): | Yes |
| EU Directive 2002/95/EC (RoHS): | Yes |
| EU RoHS Compliance Date (mm/dd/yyyy): | 01/01/2004 |
| 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: | UL1666 Riser |
| CSA Flame Test: | FT1 |

Plenum/Non-Plenum

| | |
|---------------|----|
| Plenum (Y/N): | No |
|---------------|----|

Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

Capacitance (pF/ft)
15.0

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:

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 | 1.900 | 74.3 | 72.3 | 72.4 | 70.4 | 20.000 |
| 4 | 3.700 | 65.3 | 63.3 | 61.6 | 59.6 | 23.000 |
| 8 | 5.300 | 60.3 | 58.8 | 55.5 | 53.5 | 24.500 |
| 10 | 5.900 | 59.3 | 57.3 | 53.4 | 51.4 | 25.000 |
| 16 | 7.500 | 56.3 | 54.3 | 48.7 | 46.7 | 25.000 |
| 20 | 8.400 | 54.8 | 52.8 | 46.4 | 44.4 | 25.000 |
| 25 | 9.500 | 53.4 | 51.4 | 43.9 | 41.9 | 24.300 |
| 31.25 | 10.600 | 51.9 | 49.9 | 41.2 | 39.2 | 23.600 |
| 62.5 | 15.400 | 47.4 | 45.4 | 32.0 | 30 | 21.500 |
| 100 | 19.800 | 44.3 | 42.3 | 24.5 | 22.5 | 21.000 |
| 155 | 25.100 | 41.5 | 39.5 | 16.3 | 14.3 | 21.000 |
| 200 | 29.000 | 39.9 | 37.9 | 10.8 | 10.0 | 21.000 |
| 250 | 32.800 | 38.3 | 36.3 | 5.5 | 3.5 | 18.000 |
| 300 | 35.200 | 37.2 | 34.2 | 0.7 | 0 | 18.000 |

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| | | | | | |
|-----|--------|------|------|---|--------|
| 310 | 37.100 | 36.9 | 34.9 | 0 | 18.000 |
| 350 | 39.800 | 36.2 | 34.2 | | 17.000 |
| 400 | 43.000 | 35.3 | 33.3 | | 14.000 |
| 500 | 49.000 | 33.8 | 31.8 | | 14.000 |

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: **Values above 350 MHz are information only

Notes (Cont'd.):

Operating temperatures are subject to length de-rating. Cable passes -25C Cold Bend per UL 1581.

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|----------------|----------|-------------|-------|-------|---------------------|
| 11872A 0081000 | 1,000 FT | 66.000 LB | GRAY | C | 4 PR #23 PP PVC PVC |
| 11872A 0101000 | 1,000 FT | 66.000 LB | BLACK | C | 4 PR #23 PP PVC PVC |

Notes:

C = CRATE REEL PUT-UP.

Revision Number: 8 Revision Date: 02-28-2014

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