

## 7927A 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, E-Spline center member, industrial grade sunlight- and oil-resistant PVC jacket, rip cord. Sequential marking at two foot intervals.

### Usage (Overall)

**Suitable Applications:** Industrial Ethernet Cable, Harsh Environments, 600 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
4	23	Solid	BC - Bare Copper

**Total Number of Conductors:** 8

#### Insulation

**Insulation Material:**

Insulation Material
PO - Polyolefin

#### Outer Shield

**Outer Shield Material:**

Outer Shield Material
Unshielded

#### Outer Jacket

**Outer Jacket Material:**

Outer Jacket Material
Industrial Grade PVC - Polyvinyl Chloride

**Outer Jacket Ripcord:** Yes

#### Overall Cable

**Overall Cabling Fillers:** E-Spline Center Member

**Overall Cabling Color Code Chart:**

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

**Overall Nominal Diameter:** 6.375 x 8.611 mm

### Mechanical Characteristics (Overall)

**Installation Temperature Range:** -25°C To +75°C

**Operating Temperature Range:** -40°C To +75°C

**Bulk Cable Weight:** 49.855 Kg/Km

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Max. Recommended Pulling Tension: 200.169 N

Min. Bend Radius/Minor Axis: 6.350 mm

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMR
AWM Specification:	UL Style 444 (300 V 75°C)
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):	10/13/2005
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
Other Specification:	UL Verified to Category 6

#### Applicable Patents:

Country	Patent
US	5606151
US	5734126
US	6855889
US	7663061
US	7838773
US	7977575

#### Flame Test

UL Flame Test: UL1666 Riser

C(UL) Flame Test: FT4

#### Suitability

Sunlight Resistance: Yes

Oil Resistance: Yes

#### Plenum/Non-Plenum

Plenum (Y/N): No

### Electrical Characteristics (Overall)

#### Nom. Mutual Capacitance:

Capacitance (pF/m)
50.8555

Maximum Capacitance Unbalance (pF/100 m): 65.6

#### Nominal Velocity of Propagation:

VP (%)
67

#### Maximum Delay:

Delay (ns/100 m)
538 @ 100MHz

#### Max. Delay Skew:

Delay Skew (ns/100 m)
38

#### Maximum Conductor DC Resistance:

## METRIC MEASUREMENT VERSION

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#### DCR @ 20°C (Ohm/100 m)

8.2

#### 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)	Min. SRL (dB)
1	1.9	82.3	80.3	80.5	78.5	20.0	27.0
4	3.6	73.3	71.3	69.7	67.7	23.0	27.0
8	5.1	68.8	66.8	63.7	61.7	24.5	27.0
10	5.7	67.3	65.3	61.6	59.6	25.0	27.0
16	7.2	64.3	62.3	57.0	55.0	25.0	27.0
20	8.1	62.8	60.8	54.7	52.7	25.0	27.0
25	9.1	61.3	59.3	52.3	50.3	25.0	27.0
31.25	10.2	59.9	57.9	49.7	47.7	25.0	27.0
62.5	14.7	55.4	53.4	40.7	38.7	25.0	27.0
100	18.9	52.3	50.3	33.4	31.4	25.0	27.0
155	23.9	49.5	47.5	25.5	23.5	22.8	24.7
200	27.5	47.8	45.8	20.3	18.3	21.7	23.4
250	31.2	46.3	44.3	15.2	13.2	20.5	22.2
300	34.5	43.2	41.2	10.6	8.6	20.2	21.2
310	35.2	42.9	40.9	9.8	7.8	20.1	21.1
350	37.7	42.2	40.2	6.5	4.5	19.8	20.4
400	40.6	41.3	39.3	2.6	0.6	19.5	19.7
450	43.5	40.5	38.5	2.1	0.10	18.9	19.1
460	44.0	40.4	38.4	0	0	18.8	19.0
500	46.2	39.8	37.8			18.4	18.5
550	48.8	39.2	37.2			18.0	18.0
600	51.4	38.6	36.6			17.6	17.6

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
1	100 ± 12	100 ± 15	73.8	70.8
4	100 ± 12	100 ± 10.4	61.8	58.8
8	100 ± 12	100 ± 8	55.7	52.7
10	100 ± 12	100 ± 7.3	53.8	50.8
16	100 ± 12	100 ± 5.7	49.7	46.7
20	100 ± 12	100 ± 5	47.8	44.8
25	100 ± 15	100 ± 5	45.8	42.8
31.25	100 ± 15	100 ± 5	43.9	40.9
62.5	100 ± 15	100 ± 5	37.9	34.9
100	100 ± 15	100 ± 5	33.8	30.8
155	100 ± 15	100 ± 5	30.0	27.0
200	100 ± 15	100 ± 5	27.8	24.8
250	100 ± 20	100 ± 5	25.8	22.8
300	100 ± 20	100 ± 5	24.3	21.3
310	100 ± 20	100 ± 5	24.0	21.0
350	100 ± 22	100 ± 5	22.9	19.9
400	100 ± 22	100 ± 5	21.8	18.8
450	100 ± 22	100 ± 5	20.7	17.7
460	100 ± 22	100 ± 5	20.5	17.5
500	100 ± 22	100 ± 5	19.8	16.8
550	100 ± 22	100 ± 5	19.0	16.0
600	100 ± 22	100 ± 5	18.2	15.2

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## Notes (Overall)

**Notes:** Third party verified to TIA/EIA-568-B.2, Category 6. Operating temperature 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
7927A 0101000	305 MT	19.051 KG	BLACK	C	4 PR #23 PP PVC
7927A 0102000	610 MT	38.102 KG	BLACK	C	4 PR #23 PP PVC

**Notes:**  
C = CRATE REEL PUT-UP.

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