

## 7834A - Belden Category 6+ UTP Cable

  	<p>For more information please call <b>1-800-Belden1</b></p> <p><u>See Put-ups and Colors</u></p> <p><b>Related Documents: No.8 for Data Twist Cables (Modified Western Electric).pdf</b></p>
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### Description:

23 AWG solid bare copper conductors, non-plenum, Polyolefin insulation, twisted pairs, central spline, rip cord, see color code chart (below), PVC jacket (blue or grey).

### SUITABLE APPLICATIONS:

Suitable Applications	Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU, Digital Video, RS-422, 250MHz Category 6 and PoE application.
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### PHYSICAL CHARACTERISTICS:

#### CONDUCTOR:

Number of Pairs	4
Total Number of Conductors	8
AWG	23
Stranding	Solid
Conductor Material	BC - Bare Copper

#### INSULATION:

Insulation Material	PO - Polyolefin
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#### Pair Color Code Chart:

Pair Number	Insulation Color	
	Wire 1	Wire 2
1	Blue	White with Blue Markings
2	Orange	White with Orange Markings
3	Green	White with Green Markings
4	Brown	White with Brown Markings

### OVERALL CABLING:

Overall Cabling Fillers	Central Spline
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### OUTER SHIELD:

Outer Shield Material	Unshielded
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### OUTER JACKET:

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Outer Jacket Material	PVC – Polyvinyl Chloride
Outer Jacket Ripcord	Yes
<b>OVERALL NOMINAL DIAMETER:</b>	
Overall Nominal Diameter	6.1 mm
<b>MECHANICAL CHARACTERISTICS:</b>	
Operating Temperature Range	- 20°C To + 75°C
Nom. Bulk Cable Weight	40 kg/km
Max. Recommended Pulling Tension	110 N
Min. Bend Radius (Install)	13.0 mm
<b>APPLICABLE SPECIFICATION AGENCY COMPLIANCE:</b>	
<b>APPLICABLE STANDARDS:</b>	
NEC/(UL) Specification	CM
NEC Articles	800
CEC/C(UL) Specification	CM
IEC Specification	11801 Category 6
EU RoHS Compliant (Y/N)	Y
EU RoHS Compliance Date	Sept 2007
TIA Specification	568-C.2 Category 6
IEEE standard	IEEE 802.3bt Type1, Type2, Type3, Type4
Other Specification	NEMA WC-63.1 Category 6, UL verified to Category 6
<b>FLAME TEST:</b>	
UL Flame Test	UL1685 UL Loading
<b>SUITABILITY:</b>	
Suitability – Indoor (Y/N)	Y
Suitability - Outdoor (Y/N)	N
Sunlight Resistance (Y/N)	N
Oil Resistance	N
Non-halogenated	N
<b>PLENUM/NON-PLENUM:</b>	
Plenum (Y/N)	N
<b>ELECTRICAL CHARACTERISTICS:</b>	
Nom. Mutual Capacitance @ 1 KHz	5.6 nF/100m
Maximum Capacitance Unbalance	330 pF/100m
Nominal Velocity of Propagation	70 %
Maximum Delay @ 100 MHz	538 ns/100m

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Maximum Delay Skew	45 ns/100m
Maximum Conductor DC Resistance @ 20 Deg.C	9.38 Ohms/100m
Nominal Conductor DC Resistance @ 20 Deg.C	6.9 Ohms/100m
Maximum DCR Unbalance @ 20 Deg.C	5 %
Characteristic Impedance	100 ± 15 Ohms
Maximum Intended Operating Voltage	80 V RMS

### ELECTRICAL CHARACTERISTICS - PREMISES:

Premise Cable Electricals Table 1:

Frequency (MHz)	Attenuation (dB/100m)		NEXT (dB)		PSNEXT (dB)		Return Loss (dB)		ELFEXT (dB)		PSELFEXT (dB)	
	Max.	Typical	Min.	Typical	Min.	Typical	Min.	Typical	Min.	Typical	Min.	Typical
1	2.0	1.7	74.3	95	72.3	93	20.0	36	67.8	92	64.8	86
4	3.8	3.4	65.3	92	63.3	90	23.0	37	55.8	90	52.8	83
8	5.3	4.8	60.8	90	58.8	88	24.5	37	49.7	82	46.7	74
10	6.0	5.3	59.3	90	57.3	88	25.0	38	47.8	75	44.8	69
16	7.6	6.8	56.2	83	54.2	81	25.0	38	43.7	72	40.7	65
20	8.5	7.6	54.8	80	52.8	78	25.0	42	41.8	70	38.8	64
25	9.5	8.5	53.3	76	51.3	74	24.3	44	39.8	67	36.8	63
31.25	10.7	9.5	51.9	70	49.9	68	23.6	42	37.9	66	34.9	59
62.5	15.4	13.5	47.4	68	45.4	66	21.5	34	31.9	57	28.9	49
100	19.8	17.2	44.3	65	42.3	63	20.1	32	27.8	55	24.8	42
155	25.2	22.5	41.4	68	39.4	66	18.8	31	24.0	50	21.0	42
200	29.0	24.8	39.8	65	37.8	63	18.0	27	21.8	47	18.8	41
250	32.8	27.9	38.3	60	36.3	59	17.3	24	19.8	41	16.8	34

Frequency (MHz)	ACR (dB)		PSACR (dB)	
	Min.	Typical	Min.	Typical
1	72.3	93.3	70.3	91.3
4	61.5	88.6	59.5	86.6
8	55.4	85.2	53.4	83.2
10	53.3	84.7	51.3	82.7
16	48.7	76.2	46.7	74.2
20	46.3	72.4	44.3	70.4
25	43.8	67.5	41.8	65.5
31.25	41.2	60.5	39.2	58.5
62.5	32.0	54.5	30.0	52.5
100	24.5	47.8	22.5	45.8
155	16.3	45.5	14.3	43.5
200	10.8	40.2	8.8	38.2

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250	5.5	32.1	3.5	30.1
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### NOTE:

Notes	<p>Jacket sequentially marked.</p> <p>Third party verified to TIA -568-C.2, Category 6.</p> <p>Typical Values are for reference only.</p>
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### PUT-UPS AND COLORS:

Item	Description	Put-Up (ft.)	Ship Weight (lbs.)	Jacket Color	Package
7834A 006A1000	4 PR #23 PO PVC	A1000	33.0	BLU	Reel-in-box
7834A 008A1000	4 PR #23 PO PVC	A1000	33.0	GRY	Reel-in-box
7834A 006U1000	4 PR #23 PO PVC	U1000	30.8	BLU	Box
7834A 008U1000	4 PR #23 PO PVC	U1000	30.8	GRY	Box

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