



**Part Number: 7953A**

DataTuff® Cat 6, (4 pr) 23 AWG Solid BC, PP/PVC/PVC, EtherNet/IP, Foil Shld, CMR, CMX, 600 V AWM

[Request Sample](#)

## Product Description

Four Cat 6 23 AWG Bonded-Pairs solid bare copper conductors, polypropylene insulation, FRPE spline center member, inner PVC jacket, overall Beldfoil® Shield (100% coverage), industrial grade oil- and UV-resistant PVC outer jacket.

## Technical Specifications

### Product Overview

Suitable Applications:	Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155 ATM, 622 ATM, 250MHz Category 6
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### Physical Characteristics (Overall)

#### Conductor

Element	AWG	Stranding	Material	No. of Pairs
	23	Solid	BC - Bare Copper	4
No Ground				

Conductor Count:	8
Total Number of Pairs:	4
Conductor Size:	23 AWG

#### Insulation

Material	Nominal Diameter	Nominal Wall Thickness
PP - Polypropylene	0.043 in	0.01 in

#### Color Chart

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

#### Inner Jacket Material

Material	Nominal Diameter	Nominal Wall Thickness	Ripcord
Industrial Grade PVC - Polyvinyl Chloride	0.258 in	0.02 in	Yes

#### Outer Shield Material

Type	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	Aluminum/Polyester	Beldfoil®	100 %	TC - Tinned Copper	24	7x32 mm

#### Outer Jacket Material

Material	Nominal Diameter	Nominal Wall Thickness	Ripcord
Industrial Grade PVC - Polyvinyl Chloride	0.335 in	0.03 in	No

## Construction and Dimensions

### Cabling

Filler
X-Spline Center Member

Print Legend:	7953A BELDEN VERIFIED (UL) CAT 6 4PR23 E108998-M CMR-CMX OUTDOOR OR C(UL) CMG----ISO/IEC11801 CAT 6 --- 300V PATENTED OIL/SUN RES FT4 IEEE 1202 123456 FT
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## Electrical Characteristics

### Conductor DCR

Max. Conductor DCR	Max. DCR Unbalance
8.2 Ohm/1000ft	3 %

### Capacitance

Max. Capacitance Unbalance	Nom. Mutual Capacitance
330 pF/ft	15 pF/ft

### Delay

Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
537 ns/100m	45 ns/100m	72 %

### High Freq

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)	Max./Min. Fitted Impedance
1 MHz	2 dB/100m	74.3 dB	72.3 dB	72.3 dB	70.3 dB	67.8 dB	64.8 dB	21 dB	100 ± 15 Ohm	100 ± 15 Ohm
4 MHz	3.8 dB/100m	65.3 dB	63.3 dB	61.5 dB	59.5 dB	55.8 dB	52.7 dB	24 dB	100 ± 15 Ohm	100 ± 15
8 MHz	5.3 dB/100m	60.8 dB	58.8 dB	55.4 dB	53.4 dB	49.7 dB	46.7 dB	25.5 dB	100 ± 15 Ohm	100 ± 15
10 MHz	6 dB/100m	59.3 dB	57.3 dB	53.3 dB	51.3 dB	47.8 dB	44.8 dB	26 dB	100 ± 15 Ohm	100 ± 15
16 MHz	7.6 dB/100m	56.2 dB	54.3 dB	48.7 dB	46.7 dB	43.7 dB	40.7 dB	26 dB	100 ± 15 Ohm	100 ± 15
20 MHz	8.5 dB/100m	54.8 dB	52.8 dB	46.3 dB	44.3 dB	41.8 dB	38.8 dB	26 dB	100 ± 15 Ohm	100 ± 15
25 MHz	9.5 dB/100m	53.3 dB	51.3 dB	43.8 dB	41.8 dB	39.8 dB	36.8 dB	25.3 dB	100 ± 15 Ohm	100 ± 15
31.25 MHz	10.7 dB/100m	51.9 dB	49.9 dB	41.2 dB	39.2 dB	37.9 dB	34.9 dB	24.6 dB	100 ± 15 Ohm	100 ± 15
62.5 MHz	15.4 dB/100m	47.4 dB	45.4 dB	32 dB	30 dB	31.9 dB	28.9 dB	22.5 dB	100 ± 15 Ohm	100 ± 15
100 MHz	19.8 dB/100m	44.3 dB	42.3 dB	24.5 dB	22.5 dB	27.8 dB	24.8 dB	21.1 dB	100 ± 15 Ohm	
155 MHz	25.2 dB/100m	41.5 dB	39.5 dB	16.3 dB	14.3 dB	23.9 dB	20.9 dB	19.8 dB	100 ± 22 Ohm	
200 MHz	29 dB/100m	39.8 dB	37.8 dB	10.8 dB	8.8 dB	21.8 dB	18.8 dB	19 dB	100 ± 22 Ohm	
250 MHz	32.8 dB/100m	38.3 dB	36.3 dB	5.5 dB	3.5 dB	19.8 dB	16.8 dB	18.3 dB	100 ± 32 Ohm	

### Voltage

UL Description	UL Voltage Rating
	300 V RMS
Appliance Wiring Material	600 V RMS

## Temperature Range

Installation Temp Range:	-25°C To +75°C
UL Temp Rating:	75°C
Storage Temp Range:	-40°C To +80°C
Operating Temp Range:	-40°C To +75°C

## Mechanical Characteristics

Bulk Cable Weight:	44 lbs/1000ft
Max Recommended Pulling Tension:	40 lbs
Min Bend Radius/Minor Axis:	4 in

## Standards

NEC/(UL) Specification:	CMR, CMX-Outdoor
CEC/C(UL) Specification:	CMG
UL AWM Style:	UL Style 21047
ISO/IEC Compliance:	ISO/IEC 11801 ed 2.1 (2008) Class E
CPR Euroclass:	Eca
Data Category:	Category 6
Telecommunications Standards:	Category 6 - TIA 568.C.2
Other Specification:	NEMA WC-63.1 Category 6,

## Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/11/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes

EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-04
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

## Suitability

Suitability - Aerial:	Yes
Suitability - Burial:	No
Suitability - Indoor:	Yes
Suitability - Oil Resistance:	Yes
Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	Yes

## Flammability, LS0H, Toxicity Testing

C(UL) Flammability:	FT4
UL Flammability:	UL1666 Riser
CSA Flammability:	FT4
IEEE Flammability:	1202
UL voltage rating:	300 V RMS

## Plenum/Non-Plenum

Plenum (Y/N):	No
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## Part Number

### Variants

Item #	Color	Footnote
7953A 0101000	Black	C
7953A 0105000	Black	C
7953A 0061000	Blue	C
7953A 0081000	Gray	C
7953A 0021000	Red	C
7953A 1NH1000	Teal	C

Footnote:	C - CRATE REEL PUT-UP.
Patent:	<a href="https://www.belden.com/resources/patents">https://www.belden.com/resources/patents</a>

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