




**Product:** [127931A](#) 

DataTuff® 6, 4 Pr #23 Sol BC, FEP Ins, FEP Jkt, AIA Armor, PVC Jkt

 [Request Sample](#)

## Product Description

Industrial Ethernet Cat 6, 4 Pair 23AWG (Solid) Bare Copper, FEP Insulation, FEP Inner Jacket, Aluminum Interlock Armor, PVC Outer Jacket

## Technical Specifications

### Product Overview

Suitable Applications:	extreme temp, exposure to oil and gasoline, harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc. exposure to rodent, crush, or cut through force,
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### Physical Characteristics (Overall)

#### Conductor

Element	AWG	Stranding	Material	No. of Pairs
Pair(s)	23	Solid	BC - Bare Copper	4

#### Insulation

<b>Material</b>	FEP - Fluorinated Ethylene Propylene
Bonded-Pair Construction:	Yes

#### Color Chart

Color
White/Blue Stripe & Blue
White/Orange Stripe & Orange
White/Green Stripe & Green
White/Brown Stripe & Brown

#### Inner Jacket

Material	Nominal Diameter	Ripcord
FEP - Fluorinated Ethylene Propylene	0.210 in	Yes

#### Outer Jacket

Material	Nominal Diameter	Ripcord	Separator Material
FEP - Fluorinated Ethylene Propylene	0.545 in	No	Polyester Tape

### Construction and Dimensions

#### Armor

<b>Diameter over Armoring</b>
0.445 in

### Electrical Characteristics

#### Conductor DCR

<b>Max. Conductor DCR</b>
93.8 Ohm/km

#### Capacitance

<b>Max. Capacitance Unbalance</b>
330 pF/100m

#### Delay

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

#### High Frequency

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	2.0 dB/100m	74.3 dB	72.3 dB	72.3 dB	70.3 dB	67.8 dB	64.8 dB	20 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	23 dB	100 ± 15 Ohm	100 ± 15 Ohm
8 MHz	5.3 dB/100m	60.8 dB	58.8 dB	55.4 dB	53.4 dB	49.7 dB	46.7 dB	24.5 dB	100 ± 15 Ohm	100 ± 15 Ohm
10 MHz	6 dB/100m	59.3 dB	57.3 dB	53.3 dB	51.3 dB	47.8 dB	44.8 dB	25 dB	100 ± 15 Ohm	100 ± 15 Ohm
16 MHz	7.6 dB/100m	56.2 dB	54.3 dB	48.7 dB	46.7 dB	43.7 dB	40.7 dB	25 dB	100 ± 15 Ohm	100 ± 15 Ohm
20 MHz	8.5 dB/100m	54.8 dB	52.8 dB	46.3 dB	44.3 dB	41.8 dB	38.7 dB	25 dB	100 ± 15 Ohm	100 ± 15 Ohm
25 MHz	9.5 dB/100m	53.3 dB	51.3 dB	43.8 dB	41.8 dB	39.8 dB	36.8 dB	24.3 dB	100 ± 15 Ohm	100 ± 15 Ohm
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	23.6 dB	100 ± 15 Ohm	100 ± 15 Ohm
62.5 MHz	15.4 dB/100m	47.4 dB	45.4 dB	32 dB	30 dB	31.9 dB	28.8 dB	21.5 dB	100 ± 15 Ohm	100 ± 15 Ohm
100 MHz	19.8 dB/100m	44.3 dB	42.3 dB	24.5 dB	22.5 dB	27.8 dB	24.8 dB	20.1 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	18.8 dB	100 ± 22 Ohm	
200 MHz	29.0 dB/100m	39.8 dB	37.8 dB	10.8 dB	8.8 dB	21.8 dB	18.7 dB	18 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	17.3 dB	100 ± 32 Ohm	

#### Current

<b>Max. Recommended Current [A]</b>
15 pF/ft

#### Voltage

UL Description	UL Voltage Rating
CM	300 V

#### Temperature Range

UL Temperature Rating:	60°C
Operating Temperature Range:	-40°C To +60°C

#### Mechanical Characteristics

Bulk Cable Weight:	123 lbs/1000ft
Maximum Recommended Pulling Tension:	100 lbs

#### Standards

NEC Articles:	Article 800
NEC/(UL) Compliance:	CM
CEC/C(UL) Compliance:	CMG, HL
ISO/IEC Compliance:	ISO/IEC 11801 Cat 6
CPR Euroclass:	Eca
Data Category:	Category 6
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 6

#### Applicable Environmental and Other Programs

Environmental Space:	Indoor/Outdoor
EU Directive 2011/65/EU (RoHS 2):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU (RoHS 2 amendment):	Yes
EU CE Mark:	Yes
EU REACH SVHC Compliance (yyyy-mm-dd):	2020-01-16
MII Order #39 (China RoHS):	Yes

#### Suitability

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

## Flammability, LSOH, Toxicity Testing

CSA/C(UL) Flammability:	FT4
UL Flammability:	UL 1685 (UL Loading)

## Product Notes

Notes:	Operating temperatures are subject to length de-rating
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## History

Update and Revision:	Revision Number: 0.35 Revision Date: 02-20-2026
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