



Product: [50106AHF](#)

DataTuff® Cat 6A, S/FTP, 4P24AWG/7, Stranded Bare Cu, Foam PE Ins, TPE Jkt, High-Flex, Drag chain, Torsion-resistant

Product Description

Cat 6A, S/FTP, 4P24AWG/7, Stranded Bare Copper Conductors, Foam PE Insulation, Individual Shielded Pair + Braid shield,TPE Jkt, High-Flex, Drag chain, Torsion-resistant

Technical Specifications

Product Overview

Suitable Applications:	Industrial Ethernet cables are used for interconnecting Industrial Ethernet Switches, IP controllers, media converters, distributed control system, programmable logic controller and transmitting industrial protocol data signals. Support current and future Category 6A applications, such as: 10Base-T, 100Base-TX, 1000Base-T and 10GBase-T. These are Cat 6A cables for indoor use meeting IEC61156, UL 758, TIA 568.2-D
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Construction Details

Conductor

Size	Stranding	Material	No. of Pairs	No. of Elements
24 AWG	Stranded	BC - Bare Copper	4	8

Insulation

Material	Nom. Insulation Diameter	Color Code
PE - Polyethylene (Foam)	1.35 mm (0.0531 in)	1.White*Blue, 2.White*Orange, 3.White*Green, 4.White*Brown

Inner Shield

Element	Shield Type	Material
Individual Shielded Pair	Tape	Bi-Laminate (Alum+Poly)

Outer Shield

Shield Type	Material	Coverage
Braid	Tinned Copper (TC)	60%

Outer Jacket

Material	Nom. Diameter
TPE - Thermoplastic Elastomer	7.5 mm (0.30 in)

Electrical Characteristics

Electricals

Max. Conductor DCR	Nom. Characteristic Impedance
87.6 @20 °C Ohm/km	100 Ohm

Delay

Max. Delay	Max. Delay Skew
570 ns/100m	45 ns/100m

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation) [dB/100m]	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]
1	2.4	74.3	71.3	67.8	64.8	20.0
4	4.9	65.3	62.3	55.8	52.8	23.0
8	6.9	60.8	57.8	49.7	46.7	24.5

10	7.8	59.3	56.3	47.8	44.8	25.0
16	9.9	56.2	53.2	43.7	40.7	25.0
20	11.1	54.8	51.8	41.8	38.8	25.0
25	12.5	53.3	50.3	39.8	36.8	24.3
31.25	14.1	51.9	48.9	37.9	34.9	23.6
62.5	20.4	47.4	44.4	31.9	28.9	21.5
100	26.4	44.3	41.3	27.8	24.8	20.1
200	38.9	39.8	36.8	21.8	18.8	18.0
250	44.2	38.3	35.3	19.8	16.8	17.3
300	49.2	37.1	34.1	18.3	15.3	16.8
400	58.3	35.3	32.3	15.8	12.8	15.9
500	66.6	33.8	30.8	13.8	10.8	15.2

Mechanical Characteristics

Temperature

UL Temperature
-40°C to +80°C

Standards and Compliance

Environmental Suitability:	Indoor, Oil Resistance
Data Category:	Category 6A

Product Notes

Notes:	Flexibility: drag chain: 20 million cycles, bending Radius: 75mm, s=30 cycles/min, chain length : 1m; Torsion Test: Stress : +/- 180°, weight : 300g, s=30 cycles/min, torsion length: 1m
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History

Update and Revision:	Revision Number: 0.17 Revision Date: 06-11-2025
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