



Product: [50106FLS](#)

CAT 6 4P23AWG, F/UTP, SWA, LSZH Jkt, Indoor/Outdoor



Product Description

CAT 6 4PR x 23AWG F/UTP, Solid Bare Copper Conductor, PO Insulation, Overall Foil Shield, LSZH Inner Jacket, Steel Wire Armoring, LSZH Outer Jacket, Indoor/Outdoor

Technical Specifications

Product Overview

Suitable Applications:	Industrial Ethernet cables are used for interconnecting Industrial Ethernet Switches, IP controllers, media convertors, distributed control system, programmable logic controller and transmitting industrial protocol data signals. These cables are suitable for transmitting 1000BASE-TX Gigabit Ethernet, 100BASE-T Ethernet, 100BaseVG ANYLAN, 155ATM, 622ATM, RS-422, 250MHz Category 6, EtherCAT. These are highly durable & ruggedized cables for both indoor and outdoor use meeting IEC 60332-3-24 and IEC 60754-1 & 2
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Construction Details

Conductor

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

Insulation

Material	Nom. Insulation Diameter	Color Code
PO - Polyolefin	1.10 mm (0.0433 in)	Blue & White with Blue Markings, Orange & White with Orange Markings, Green & White with Green Markings, Brown & White with Brown Markings

Inner Jacket

Material
LSZH - Low Smoke Zero Halogen (Flame Retardant)

Outer Shield

Shield Type	Material	Drainwire Type
Tape	Bi-Laminate (Alum+Poly)	26 AWG (Solid) TC

Armor

Armor Type & Material
SWA - Steel Wire Armor

Outer Jacket

Material	Nom. Diameter	Ripcord
LSZH - Low Smoke Zero Halogen (Flame Retardant)	12.3 mm	Yes

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance	Nom. Characteristic Impedance
93.8 Ohm/km	330 pF/100m	100 Ohm

Delay

Max. Delay	Max. Delay Skew
538 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	74.3	72.3	67.8	64.8	20
4	3.8	65.3	63.3	55.8	52.8	23
8	5.3	60.8	58.8	49.7	46.7	24.5
10	6	59.3	57.3	47.8	44.8	25
16	7.6	56.2	54.2	43.7	40.7	25
20	8.5	54.8	52.8	41.8	38.8	25
25	9.5	53.3	51.3	39.8	36.8	24.3
31.25	10.7	51.9	49.9	37.9	34.9	23.6
62.5	15.4	47.4	45.4	31.9	28.9	21.5
100	19.8	44.3	42.3	27.8	24.8	20.1
155	25.2	41.4	39.4	24	21	18.8
200	29	39.8	37.8	21.8	18.8	18
250	32.8	38.3	36.3	19.8	16.8	17.3

Mechanical Characteristics

Temperature

Operating
-20°C to +75°C

Bend Radius

Installation Min.
98.0 mm (3.86 in)

Max. Pull Tension:	110 N (25 lbf)
Bulk Cable Weight:	282 kg/km (189 lbs/1000ft)

Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance, Oil Resistance, Burial
Data Category:	Category 6
ISO/IEC Compliance:	ISO/IEC 11801
European Halogen Free Standards:	IEC 60754-1 - Halogen Amount = Zero, IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 10 µS/mm, IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3
European Directive Compliance:	EU Directive 2011/65/EU (RoHS 2)
APAC Compliance:	China RoHS II (GB/T 26572-2011)

History

Update and Revision:	Revision Number: 0.72 Revision Date: 07-05-2024
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Part Numbers

Variants

Item #	Color	Putup Type	Length
50106FLS 010305M	Black	Reel	305 m
50106FLS-A500	Black	Reel	500 m
50106FLS 006305M	Blue	Reel	305 m
50106FLS 008305M	Grey	Reel	305 m

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