

Product: 50106XU

50106XU Industrial Cat6 Cable, U/UTP, 4 Pair, AWG 24 Stranded, PE/PVC, High-Flex

Product Description

U/UTP, Category 6, 4-Pair, 24 AWG Stranded Bare Copper Conductors, Polyethylene Insulation, PVC Jacket, High Flexibility

Technical Specifications

Product Overview

Suitable Applications:	Interconnecting Industrial Ethernet Switches, IP controllers, media convertors, distributed control system, programmable logic controller and transmitting industrial protocol data signals. Suitable for transmitting 1000BASETX Gigabit Ethernet, 100BASET Fast Ethernet, 100BaseVG ANYLAN, 155ATM, 622ATM, RS422, 250MHz Category 6, EtherCAT. Stranded conductor highly applicable for flexible installation. These are highly durable & ruggedized cables for both indoor and outdoor use meeting IEC 603321 flame rating.

Construction Details

Conductor

Size	Stranding	Material
24 AWG	Stranded	BC - Bare Copper

Insulation

Material	Color Code
PO - Polyolefin	White / Blue & Blue, White / Orange & Orange, White / Green & Green, White / Brown & Brown

Outer Shield

Material
No Shield

Outer Jacket

Material	Nom. Diameter
PVC - Polyvinyl Chloride	6.3 mm

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance	Nom. Characteristic Impedance
93.8 Ohm/km	5,600 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	2.4	74.3	72.7	67.8	64.8	20
4	4.5	65.3	63.3	55.8	52.8	23
8	6.4	60.8	58.8	49.7	46.7	24.5
10	7.1	59.3	57.3	47.8	44.8	25
16	9.1	56.2	54.2	43.7	40.7	25
20	10.2	54.8	52.8	41.8	38.8	25
25	11.4	53.3	51.3	39.8	36.8	24.2

31.25	12.8	51.9	49.9	37.9	34.9	23.3
62.5	18.5	47.4	45.4	31.9	28.9	20.7
100	23.8	44.3	42.3	27.8	24.8	19
200	34.8	39.8	37.8	21.8	18.8	16.4
250	39.4	38.3	36.3	19.8	16.8	15.6

Table Notes:	Limits below 4MHz are for information only.

Voltage

UL Voltage Rating
300 V RMS (UL AWM Style 2095)

Mechanical Characteristics

Temperature

Operating
-20°C To 75°C

Bend Radius

Installation Min.
50.4 mm (1.98 in)

Max. Pull Tension:	110 N (25 lbf)
Bulk Cable Weight:	42 kg/km (28 lbs/1000ft)

Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance
Flammability / Reaction to Fire:	IEC 60332-1-2
Data Category:	Category 6
ISO/IEC Compliance:	ISO/IEC 11801
European Directive Compliance:	EU Directive 2011/65/EU (RoHS 2)

History

Update and Revision:	Revision Number: 0.88 Revision Date: 07-05-2024

Part Numbers

Variants

Item #	Color	Putup Type	Length
50106XU 010305M	Black	Reel	305 m
50106XU 006305M	Blue	Reel	305 m
50106XU 008305M	Gray	Reel	305 m

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