



Product: [APC6X3](#)

Category 6 Cable, 3 - 4 Pair, U/UTP, CMR, AIA

Product Description

Category 6 Premise Horizontal Cable (250MHz), 3 - 4 Pair, 23 AWG Solid Bare Copper Conductors, U/UTP, Riser-CMR, Aluminum Interlocked Armor

Technical Specifications

Product Overview

Suitable Applications:	Premise Horizontal Cable, Ethernet 1000BASE-T, Ethernet 100BASE-TX, Ethernet 10BASE-T, Surveillance, PoE++, PoE+, PoE
Patent:	This product has one or more applicable patents. More information on patents can be found at https://www.belden.com/patents .

Construction Details

Conductor

Size	Stranding	Material	Number of Pairs	Notes
23 AWG	Solid	BC - Bare Copper	12	3 X Four Pairs

Insulation

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

Inner Jacket

Separator	Material	Nom. Diameter	Ripcord
Center Member (Patented X-Spline®)	PVC - Polyvinyl Chloride	0.231 in (5.87 mm)	Yes

Table Notes: Configuration: Three, Four Pair Cables Cabled Together

Armor

Diameter Over Armor
0.750 in (19.1 mm)

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
93.8 Ohm/km (28.6 Ohm/1000ft)	330 pF/100m

Delay

Frequency	Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
100 MHz	537.6 ns/100m	45 ns/100m	70%

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 (PSSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Max./Min. Input Impedance (unFitted)	Min. TCL [dB]
1	2.0 dB/100m	74.3	72.3	72.3	70.3	67.8	64.8	20	100 ± 15 Ohm	40
4	3.78 dB/100m	65.28	63.28	61.5	59.5	55.71	52.71	23.01	100 ± 15 Ohm	40
8	5.32 dB/100m	60.77	58.77	55.45	53.45	49.69	46.69	24.52	100 ± 15 Ohm	40
10	5.95 dB/100m	59.31	57.31	53.36	51.36	47.75	44.75	25	100 ± 15 Ohm	40
16	7.55 dB/100m	56.25	54.25	48.7	46.7	43.67	40.67	25	100 ± 15 Ohm	37.96
20	8.47 dB/100m	54.8	52.8	46.33	44.33	41.73	38.73	25	100 ± 15 Ohm	36.99

25	9.51 dB/100m	53.35	51.35	43.84	41.84	39.79	36.79	24.32	100 ± 15 Ohm	36.02
31.25	10.67 dB/100m	51.89	49.89	41.22	39.22	37.86	34.86	23.64	100 ± 15 Ohm	35.05
62.5	15.38 dB/100m	47.38	45.38	31.99	29.99	31.83	28.83	21.54	100 ± 15 Ohm	32.04
100	19.8 dB/100m	44.31	42.31	24.51	22.51	27.75	24.75	20.11	100 ± 15 Ohm	30
155	25.16 dB/100m	41.46	39.46	16.3	14.3	23.95	20.95	18.77	100 ± 15 Ohm	28.1
200	28.98 dB/100m	39.8	37.8	10.82	8.82	21.73	18.73	18	100 ± 15 Ohm	26.99
250	32.85 dB/100m	38.35	36.35	5.5	3.5	19.79	16.79	17.32	100 ± 15 Ohm	26.02

Voltage

UL Voltage Rating
300 V (CMR)

Mechanical Characteristics

Temperature

UL Temperature	Operating	Installation	Storage
75°C	-20°C To +75°C	0°C To +50°C	-20°C To +75°C

Bend Radius

Installation Min.
7.5 in

Max. Pull Tension:	200 lbs (91 kg)
Bulk Cable Weight:	212 lbs/1000ft (315 kg/km)

Standards and Compliance

Environmental Suitability:	Riser, Indoor
Flammability / Reaction to Fire:	UL 1666 Riser, FT4, IEC 60332-1-2
NEC / UL Compliance:	Article 800, CMR
CEC / C(UL) Compliance:	CMR
ICEA Compliance:	S-116-732
IEEE Compliance:	IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
NEMA Compliance:	ANSI/NEMA WC-66
Data Category:	Category 6
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 6
Third Party Performance Verification:	Category 6
ISO/IEC Compliance:	ISO/IEC 11801-1, IEC 61156-5
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16
APAC Compliance:	China RoHS II (GB/T 26572-2011)

Product Notes

Notes:	Electrical values are expected performance based on cable testing and representative performance within a typical Belden system.
--------	--

History

Update and Revision:	Revision Number: 0.22 Revision Date: 04-08-2022
----------------------	---

© 2023 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.