

CAT6A UTP CMP (Plenum-Rated) Made in the USA

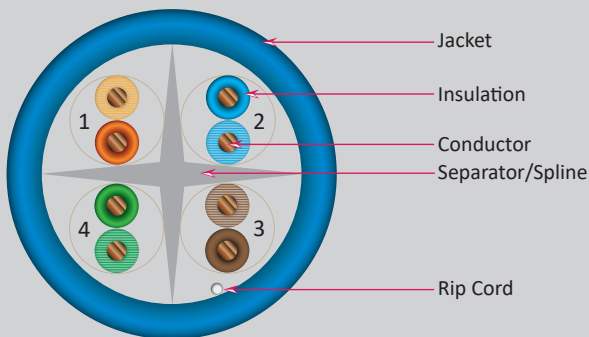


DESCRIPTION

**CAT6A UTP CMP (Plenum-Rated)
ETL-Listed Cable**

FEATURES

- Meets or exceeds ANSI/TIA-568.2-D
- Spline-based construction with ribbed jacket ensuring excellent X-talk performance
- Meets PoE Type 4 specifications
- 23 AWG/4 PAIR Solid bare copper conductors
- Unshielded with an overall plenum jacket
- Supports PoE 802.3af, 802.3at, 802.3bt (Type 3, Type 4), 802.3an, 802.3bz, 802.3ab, 802.3u
- Suitable for 10Gb High-Speed Applications
- HDBase-T A & B
- 10 Gigabit Ethernet (IEEE 802.3an)
- 5 Gigabit Ethernet (IEEE 802.3bz)
- 2.5 Gigabit Ethernet (IEEE 802.3bz)
- Gigabit Ethernet (IEEE 802.3ab)
- 100 Mbps Ethernet (IEEE 802.3u)
- 1000 Mbps ATM 622 Mbps ATM
- 15W PoE (IEEE 802.3af)
- 30W PoE+ (IEEE 802.3at)
- 60W PoE++ (IEEE 802.3bt Type 3)
- 100W PoE++ (IEEE 802.3bt Type 4)



Part# 176 SERIES

Specifications	
Construction	
Conductor Material	23 AWG Solid Copper
Stranding	Solid
Insulation Colors	P1: Blue/White-Blue P2: Orange/White-Orange P3: Green/White-Green P4: Brown/White-Brown
Insulation (All Pairs)	FEP 0.00875-0.011 in (0.222-0.279 mm)
Number of Conductors	8 (4 Pairs)
Jacket Material	PVC: Plenum-Rated, Low-Smoke, Fire-Retardant
Cable Outer Diameter	0.260 in (6.604 mm) nom.
Jacket Average Wall	0.018 in (0.457 mm)

Electrical	
Operating Voltage Rating	300 V RMS
DC Resistance	7.09Ω/100m @ 20 °C max.
Resistance Unbalance	1 %
Mutual Capacitance	4.68 NF/100m max.
Capacitance Unbalance	42.34pF/100m max.
Input Impedance	100 Ω±15% (100 MHz) ±20 Ω (100–250 MHz) ±25 Ω (251–500 MHz)
Delay Skew	20.91ns @ 1.312
NVP	71.20 %

Mechanical	
Max. Recommended Pull Tension	38 lbs.
Min. Bend Radius (Installed)	0.75 in min.

Compliance	
Safety	ETL-Listed (tested per UL 444) RoHS2 (Directive 2011/65/EU)
Fire Safety	NEC CMP (tested per NFPA 262)
Performance	ANSI/TIA-568.2-D (ETL-verified)

Packaging	Height	Diameter	Weight
Plastic Spool	14 in	15 in	40.5 lb

VERTICAL CABLE

800.749.2447 Florida
951.696.7772 California
845.391.8318 New York

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Environmental	
Storage Temperature	-20° C to +75° C
Installation Temperature	0° C to +50° C
Operating Temperature	-20° C to +75° C
Operating Humidity	≤93 % RH non-condensing
Application support	
PoE	15-W PoE Type 1 (IEEE 802.3af) 30-W PoE+ Type 2 (IEEE 802.3at) 60-W PoE++/4PPoE Type 3 (IEEE 802.3bt) 100-W PoE++/4PPoE Type 4 (IEEE 802.3bt)
HDBase-T	Class A–Class D
Ethernet	10GBASE-T (IEEE 802.3an) 2.5GBASE-T/5GBASE-T (IEEE 802.3bz) 1000BASE-T (IEEE 802.3ab) Gigabit Ethernet 100BASE-TX (IEEE 802.3u) 100-Mbps Ethernet (Fast Ethernet)
ATM	ATM LAN 25/51/155/622
Jacket Printing	
4010346 CAT6A AUGMENTED 10GIG c(ETL)us CMP-LP (0.5A) FT6 23 AWG 4PR UTP 75C TESTED TO ANSI/TIA 568.2-D ISO 11801 750 MHz MADE IN USA PO#/OP# ROHS COMPLIANT XXXXFT-XXXXFT	
Colors available	
Black, Blue, Gray, Green, Orange, Pink, Purple, Red, White, Yellow (check availability)	

Ampacity

AWG	Number of 4-pair Cables in Bundle																				
	1			2-7			8-19			20-37			38-61			62-91			92-192		
	60°C	75°C	90°C	60°C	75°C	90°C	60°C	75°C	90°C	60°C	75°C	90°C	60°C	75°C	90°C	60°C	75°C	90°C	60°C	75°C	90°C
24	2.0	2.0	2.0	1	1.4	1.6	0.8	1	1.1	0.6	0.7	0.9	0.1	0.1	0.7	0.4	0.5	0.6	0.3	0.4	0.5
23	2.5	2.5	2.5	1.2	1.5	1.7	0.8	1.1	1.2	0.6	0.8	0.9	0.5	0.7	0.8	0.5	0.7	0.8	0.4	0.5	0.6
22	3.0	3.0	3.0	1.4	1.8	2.1	1	1.2	1.4	0.7	0.9	1.1	0.6	0.8	0.9	0.6	0.7	0.8	0.5	0.6	0.7

The table above is representative of the one approved the National Fire Protection Agency for use in the next edition of the National Electrical Code known as NFPA-70. The complete table will be found in section 725.144 of the code. It will also be referenced in Article 800 Communication Circuits. The table identifies the ampacity of each conductor (in Amperes) in a 4-pair Class 2 or Class 3 data cable. Ambient temperature used for development of the table is 30°C (86° F) with all conductors in all cables carrying current. The table is based on 60°C (140°F), 75°C (167°F) and 90°C (194°F) rated cables.

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Transmission Specifications:

FREQ (MHz)	INSERTION LOSS		NEXT		PS NEXT		ACR	
	TIA-568.2-D	TRANS CABLE	TIA-568.2-D	TRANS CABLE	TIA-568.2-D	TRANS CABLE	TIA-568.2-D	TRANS CABLE
1	2.31	1.6	72.5	100.8	70.5	98.3	70.21	104.6
4	3.7	3.2	65.7	109.3	63.7	95.8	62.0	94.5
8	5.2	4.6	60.9	88.2	58.9	86.3	55.7	96.1
10	6.0	5.2	59.1	91.7	57.1	85.1	53.1	86.0
16	7.5	6.6	56.3	92.7	54.3	85.6	48.8	85.6
20	8.4	7.4	54.8	86.8	52.8	80.3	46.4	77.4
25	9.4	8.3	53.4	81.5	51.4	75.7	44.0	77.7
31.25	10.4	9.3	52.0	77.1	50.0	75.3	41.6	77.1
62.5	15.0	13.5	47.4	71.7	45.4	70.6	32.4	67.7
100	19.1	17.3	44.3	80.9	42.3	69.4	25.2	66.7
155	27.6	22.0	39.8	70.0	37.8	63.6	12.2	58.5
200	31.1	25.2	38.3	70.6	36.3	62.5	7.3	48.5
250	34.3	28.5	37.1	70.9	35.1	64.3	2.9	45.3
300	40.0	31.3	35.3	70.2	33.3	62.0	-4.8	38.7
350	45.2	34.0	33.8	68.8	31.8	60.4	-11.4	40.5
400		36.8		63.8		58.6		43.4
450		39.7		61.3		58.2		28.7
500		42.1		59.0		56.4		33.1
550		44.1		67.0		59.1		25.1
600		45.9		57.1		56.7		31.3
650		47.7		59.1		54.2		21.8
700		49.3		58.2		55.7		12.5
750		52.7		69.4		52.1		11.0

Parameter above 550MHz are for internal use only.

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Transmission Specifications:

FREQ (MHz)	PSACR		ACRF		PSACRF		RETURN LOSS	
	TIA-568.2-D	TRANS CABLE	TIA-568.2-D	TRANS CABLE	TIA-568.2-D	TRANS CABLE	TIA-568.2-D	TRANS CABLE
1	68.21	95.0	70.21	102.1	68.2	93.3	20.6	40.0
4	60.0	86.1	62.0	90.2	63.7	87.0	22.9	42.4
8	53.7	80.0	55.7	86.7	58.9	80.2	24.5	40.2
10	51.1	81.9	53.1	84.9	57.1	73.6	25.0	39.8
16	46.8	75.0	48.8	76.7	54.3	68.0	25.0	38.4
20	44.4	69.9	46.4	70.4	52.8	63.2	25.0	38.9
25	42.0	67.7	44.0	81.2	51.4	58.8	24.3	40.7
31.25	39.6	64.0	41.6	77.3	50.0	56.5	23.6	38.0
62.5	30.4	57.2	32.4	59.1	45.4	57.8	21.6	43.2
100	23.2	53.4	25.2	54.5	42.3	48.0	20.1	37.8
155	10.2	37.5	12.2	38.3	37.8	36.4	18.0	35.5
200	5.3	35.6	7.3	41.3	36.3	33.4	17.3	36.7
250	0.9	34.1	2.9	38.8	35.1	29.4	16.8	29.1
300	-6.8	27.1	-4.8	34.5	33.3	20.5	15.9	28.1
350	-13.4	20.6	-11.4	31.4	31.8	18.5	15.2	27.6
400		20.7		29.1		10.8		29.9
450		13.7		16.5		13.1		26.7
500		10.9		13.9		13.4		26.6
550		7.3		13.3		8.4		24.8
600		2.2		12.6		3.2		25.8
650		-3.2		9		-3		26.7
700		-1.5		6.4		-1.4		27.8
750		-7.8		7.1		-5		32.8

Parameter above 550MHz are for internal use only.

Part Numbers	
176-300/A/P/BK	CAT6A UTP, 1000 FT, PLENUM, BLACK
176-305/A/P/BL	CAT6A UTP, 1000 FT, PLENUM, BLUE
176-310/A/P/GR	CAT6A UTP, 1000 FT, PLENUM, GREEN
176-315/A/P/GY	CAT6A UTP, 1000 FT, PLENUM, GRAY
176-320/A/P/OR	CAT6A UTP, 1000 FT, PLENUM, ORANGE
176-325/A/P/PK	CAT6A UTP, 1000 FT, PLENUM, PINK
176-330/A/P/PR	CAT6A UTP, 1000 FT, PLENUM, PURPLE
176-335/A/P/RD	CAT6A UTP, 1000 FT, PLENUM, RED
176-340/A/P/WH	CAT6A UTP, 1000 FT, PLENUM, WHITE
176-345/A/P/YL	CAT6A UTP, 1000 FT, PLENUM, YELLOW

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