

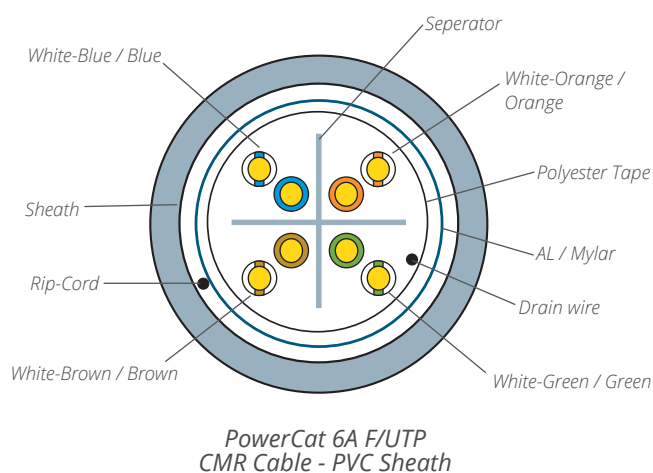
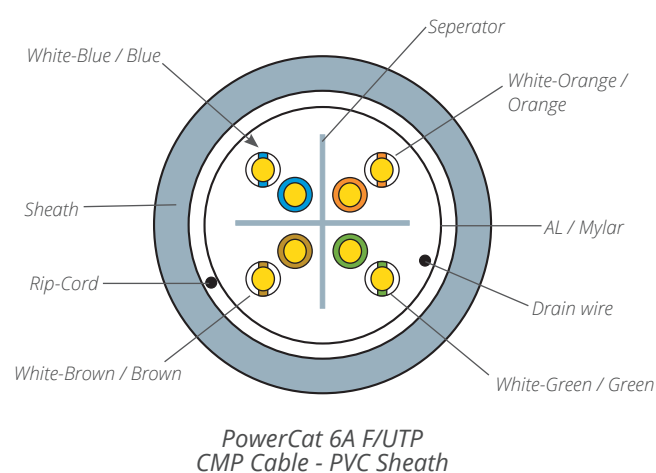
PowerCat 6A F/UTP Cable >

The PowerCat 6A Shielded Cable is a key component of the PowerCat 6A end-to-end solution.

Molex PowerCat 6A F/UTP Cable is specifically designed to support high speed data network applications such as 10-Gigabit Ethernet (10GBASE-T). The cable is constructed of four insulated copper twisted pairs that are wrapped around aluminum foil and polyester jacket. This cable minimizes alien crosstalk, provides excellent signal isolation and provides superior electromagnetic interference (EMI) protection.

Molex recommends that the full range of PowerCat 6A Shielded products be used in a system to maximize cabling performance.

This system is fully compliant with channel requirements specified by the ANSI/TIA-568.2-D, TIA-568-C.2, Cat 6A and ISO/IEC 11801 for 10GBASE-T applications.



FEATURES AND ADVANTAGES

Outstanding signal isolation

ETL verified to ANSI/TIA-568.2-D, TIA-568-C.2 Cat 6A

1000 foot to 0 foot markers

Resistant to alien crosstalk

www.molex.com/products/copper/cat6/

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SPECIFICATIONS

Commercial Standards

North American: ANSI/TIA-568.2-D, TIA-568-C.2 Cat 6A and UL

International: EU Directive 2002/95/EC (RoHS)

Fire Propagation Tests

Plenum:-NFPA 262

Non-Plenum: UL1666

ETL Listed

Mechanical

Materials:

0.57 mm (23 AWG), bare copper wire insulated with FEP (Plenum) or PE (polyethylene). Two insulated conductors twisted together with varying lays to form a pair and four pairs laid up to form the basic unit. The cable is shielded with an overall polyester/aluminum foil with stranded tinned copper drain wire and jacketed in flame-retardant PVC.

Color Code

Pair 1: White/Blue Blue

Pair 2: White/Orange Orange

Pair 3: White/Green Green

Pair 4: White/Brown Brown

Temperature Rating

Installation: -5 °C to +50 °C

Operation: -20 °C to +75 °C

Conductor diameter: 0.023 in. (0.58 mm)

Insulated Conductor diameter: 0.043 in. (1.09 mm)

Cable diameter:

CMR: 0.291 in. (7.4 mm)

CMP: 0.271 in. (6.9 mm)

Max installation tension - lb. (N): 25 (110)

Min. bend radius: 4*OD

Pulling tension: 110 N (25 lbf)

Electrical

Mutual Capacitance:

CMR:(nominal): 5.4nF Ohms/100m

CMP:(nominal): 5.4nF Ohms/100m

DC resistance maximum: 9.38 Ohms/100m maximum

Pair to ground Unbalance: 330 pF/100m max

Coupling Attenuation: IEC 61156-5 Type II

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TECHNICAL INFORMATION

Technical Performance (100m)

Category 6A F/UTP CMP Cable - PVC Sheath							
Freq.	RL	ATT	NEXT	DELAY	PSNEXT	ELFEXT	PSELFEXT
MHz	≥dB	≤dB	≥dB	≤ns	≥dB	≥dB	≥dB
1	20.0	-	74.3	570.0	72.3	67.8	64.8
4.0	23.0	3.8	65.3	552.0	63.3	55.8	52.8
8.0	24.5	5.3	60.8	546.7	58.8	49.7	46.7
10.0	25.0	5.9	59.3	545.4	57.3	47.8	44.8
16.0	25.0	7.5	56.2	543.0	54.2	43.7	40.7
20.0	25.0	8.4	54.8	542.1	52.8	41.8	38.8
25.0	24.3	9.4	53.3	541.2	51.3	39.8	36.8
31.25	23.6	10.5	51.9	540.4	49.9	37.9	34.9
62.5	21.5	15.0	47.4	538.6	45.4	31.9	28.9
100	20.1	19.1	44.3	537.6	42.3	27.8	24.8
200	18.0	27.6	39.8	536.5	37.8	21.8	18.8
250	17.3	31.1	38.3	536.3	36.3	19.8	16.8
300	16.8	34.3	37.1	536.1	35.1	18.3	15.3
500	15.2	45.3	33.8	535.6	31.8	13.8	10.8

IMPORTANT: Molex performance guarantees are based on swept-frequency testing and apply to all frequencies for the entire specified frequency range and are not limited to the tables of data shown which are presented to demonstrate our guarantees at "representative" frequencies. Electrical characteristics above 500MHz are for engineering information.

Category 6A F/UTP CMR Cable - PVC Sheath							
Freq.	RL	ATT	NEXT	DELAY	PSNEXT	ELFEXT	PSELFEXT
MHz	≥dB	≤dB	≥dB	≤ns	≥dB	≥dB	≥dB
1	19.1	3.0	65.0	521	62.0	64.2	61.2
4.0	21.0	3.5	64.1	504	61.8	52.1	49.1
8.0	21.0	5.0	59.4	500	57.0	46.1	43.1
10.0	21.0	5.5	57.8	498	55.5	44.2	41.2
16.0	20.0	7.0	54.6	496	52.2	40.1	37.1
20.0	19.5	7.9	53.1	495	50.7	38.2	35.2
25.0	19.0	8.9	51.5	495	49.1	36.2	33.2
31.25	18.5	10.0	50.0	494	47.5	34.3	31.3
62.5	16.0	14.4	45.1	492	42.7	28.3	25.3
100	14.0	18.6	41.8	491	39.9	24.2	21.2
200	11.0	27.4	36.9	490	34.3	18.2	15.2
250	10.0	31.1	35.3	490	32.7	16.2	13.2
300	8.0	38.4	29.9	490	27.1	12.1	9.1
500	8.0	43.8	26.7	490	23.8	10.2	7.2

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ORDERING INFORMATION

Order No.	SAP No.	Description
CAA-0320P-02	183020078	CBL C6A F/UTP 4PR 23 AWG CMP 1KFT WHITE TH
CAA-0320P-04	183020079	CBL C6A F/UTP 4PR 23 AWG CMP 1KFT BLACK TH
CAA-0320P-08	183020080	CBL C6A F/UTP 4PR 23 AWG CMP 1KFT GRAY TH
CAA-0320P-3K08	183020081	CBL C6A F/UTP 4PR 23 AWG CMP 3KFT GRAY TH
CAA-0320P-BL	183020082	CBL C6A F/UTP 4PR 23 AWG CMP 1KFT BLUE TH
CAA-0320P-GR	183020083	CBL C6A F/UTP 4PR 23 AWG CMP 1KFT GREEN TH
CAA-0320P-RD	183020084	CBL C6A F/UTP 4PR 23 AWG CMP 1KFT RED TH
CAA-0320P-YL	183020085	CBL C6A F/UTP 4PR 23 AWG CMP 1KFT YELLOW TH
CAA-0320R-02	183020086	CBL C6A F/UTP 4PR 23 AWG CMR 1KFT WHITE TH
CAA-0320R-08	183020087	CBL C6A F/UTP 4PR 23 AWG CMR 1KFT GRAY TH
CAA-0320R-BL	183020088	CBL C6A F/UTP 4PR 23 AWG CMR 1KFT BLUE TH

Standard Lengths: 1,000 feet (305 meters). Specifications subject to change without notice. Part numbers listed are for reels.

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