

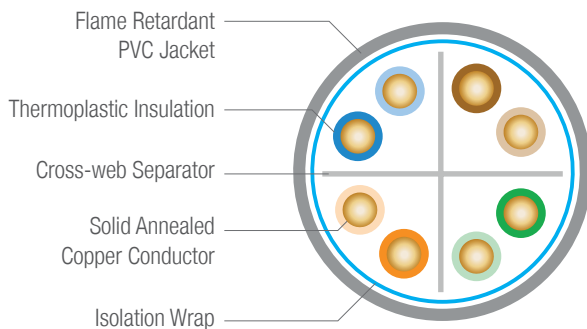
# PowerCat 6A U/UTP CMP/CMR Cable

**molex**

**PowerCat 6A U/UTP cable is capable of supporting 10GBASE-T applications and features a unique Isolation Wrap design, containing discontinuous sections of metallized material, held in place by a polymeric layer that delivers excellent alien crosstalk (AXT) protection.**

The product features a low outside diameter of 0.25" nominal (CMP) or 0.275" nominal (CMR) allowing for easier, more efficient installation and cable management. This also improves density and cooling. PowerCat 6A U/UTP cable is third party verified by UL for Category 6A component compliance and is ideal for PoE applications requiring higher levels of current and is an excellent choice for HD A/V applications.

## Features and Advantages



6A U/UTP CMP/CMR Cable

Non-Conductive Isolation Wrap for AXT protection

Tested to 650MHz

Low nominal outside diameter of 0.25" (CMP) 0.275" (CMR) allows for improved cable density and handling

High cable density and reduced bend radius lowers installation cost

No grounding or bonding required

Power over Ethernet (PoE) IEEE 802.3bt-2018 compliant

ANSI/TIA 568.2-D compliant

UL verified Category 6A

Ideal for A/V applications up to 100m channel

*PowerCat 6A U/UTP cable is compliant with the ANSI/TIA 568.2-D two connector permanent link test when installed with the PowerCat 6A jack part numbers KSJ-00062-02, KSJ-00062-04 and KSJ-00088.*

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## Applications

10BASE-T through 10GBASE-T Ethernet

Power over Ethernet (PoE) IEEE 802.3bt-2018

ATM and token ring

Backward compatible to legacy protocols and applications

HDBaseT Class A and B

## Specifications

### REFERENCE INFORMATION

Commercial Standards:

- UL 444
- CSA C22.2 No. 214-08
- UL 1666
- NFPA 262
- IEEE 802.bt-2018
- Article 800, NEC (NFPA 70)
- HDBaseT Class A and B
- UL Verified CAT 6A

Flame rating:

- UL Listed CMR-LP (0.5)
- c(UL) Listed CMR
- UL Listed CMP-LP (0.6)
- c(UL) Listed CMP

Environmental Standards:

- RoHS compliant
- REACH compliant

### MECHANICAL

Tensile Strength: 25lb

### ELECTRICAL:

DC Resistance Ohm/100m:

- CMR: 7.66
- CMP: 7.81

Skew ns/100m:

- CMR: 23.4
- CMP: 34.7

Velocity of Propagation %:

- CMR: 66
- CMP: 71

### PHYSICAL

Pair Count: 4

Conductor: Solid annealed copper

AWG: 23

Cable Diameter inches:

- CMR: 0.275
- CMP: 0.25

Weight lb/kft:

- CMR: 29
- CMP: 35

Jacket:

- CMR: FEP
- CMR: Thermoplastic

Isolation tape: Aluminium/Polyester

Operating Temperature:

- CMP: -4 to 194°F
- CMR: -4 to 167°F

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## Electrical Specifications

Frequency MHz	Insertion Loss @ 20° C Maximum dB/100m		NEXT Minimum dB/100m		ACR Minimum dB/100m		PSNEXT Minimum dB/100m		PSACR Minimum dB/100m	
	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical
1	2.1	2.0	74.3	78.3	72.2	77.3	72.3	77.3	70.2	76.3
4	3.8	3.7	65.3	69.3	61.5	66.6	63.3	68.3	59.5	65.6
8	5.3	5.1	60.8	64.8	55.4	60.6	58.8	63.8	53.4	59.6
10	5.9	5.7	59.3	63.3	53.4	58.6	57.3	62.3	51.4	57.6
16	7.5	7.3	56.2	60.2	48.8	54.0	54.2	59.2	46.8	53.0
20	8.4	8.1	54.8	58.8	46.4	51.7	52.8	57.8	44.4	51.2
25	9.4	9.1	53.3	57.3	44.0	49.7	51.3	56.3	42.0	49.0
31.25	10.5	10.2	51.9	55.9	41.4	47.2	49.9	54.9	39.4	46.7
62.5	15.0	14.4	47.4	51.4	32.4	39.0	45.4	50.4	30.4	38.4
100	19.1	18.4	44.3	48.3	25.2	32.4	42.3	47.3	23.2	31.7
200	27.6	26.5	39.8	43.8	12.2	20.1	37.8	42.8	10.2	19.5
250	31.1	29.8	38.3	42.3	7.3	15.5	36.3	41.3	5.3	15.1
300	34.3	32.9	37.1	41.1	2.9	11.4	35.1	40.1	0.9	10.8
400	40.1	38.3	35.3	39.3		4.6	33.3	38.3		3.6
500	45.3	43.0	33.8	37.8			31.8	36.8		
600		47.5		36.4				35.6		
650		49.7		35.9				35.1		
700		51.4		35.5				34.6		
750		53.3		35.1				34.2		

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# PowerCat 6A U/UTP CMP/CMR Cable



## Electrical Specifications

Frequency MHz	Return Loss Minimum dB/100m		ACRF Minimum dB/100m		PSACRF Minimum dB/100m		PSANEXT Minimum dB/100m		PSAACRF Minimum dB/100m	
	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical
1	20.0	22.0	67.8	73.8	64.8	70.8	74.0	96.5	74.0	80.0
4	23.0	25.0	55.8	61.8	52.8	58.8	74.0	87.5	73.2	79.2
8	24.5	26.5	49.7	55.7	46.7	52.7	74.0	83.0	67.1	73.1
10	25.0	27.0	47.8	53.8	44.8	50.8	74.0	81.5	65.2	71.2
16	25.0	27.0	43.7	49.7	40.7	46.7	74.0	80.0	61.1	67.1
20	25.0	27.0	41.8	47.8	38.8	44.8	74.0	80.0	59.2	65.2
25	24.3	26.3	39.8	45.8	36.8	42.8	74.0	80.0	57.2	63.2
31.25	23.6	25.6	37.9	43.9	34.9	40.9	74.0	80.0	55.3	61.3
62.5	21.5	23.5	31.9	37.9	28.9	34.9	72.6	78.6	49.3	55.3
100	20.1	22.1	27.8	33.8	24.8	30.8	69.5	75.5	45.2	51.2
200	18.0	20.0	21.8	27.8	18.8	24.8	65.0	71.0	39.2	45.2
250	17.3	19.3	19.8	25.8	16.8	22.8	63.5	69.5	37.2	43.2
300	16.8	18.8	18.3	24.3	15.3	21.3	62.3	68.3	35.7	41.7
400	15.9	17.9	15.8	21.8	12.8	18.8	60.5	66.5	34.2	39.2
500	15.2	17.2	13.8	19.8	10.8	16.8	59.0	65.0	31.2	37.2
600		16.7		18.2		15.2		63.8		35.6
650		16.4		17.5		14.5		63.3		34.9
700		16.2		16.9		13.9				
750		16.0		16.3		13.3				

## Ordering Information

Series No.	SAP No	Description
CAA-00420P-02	1810000001	PowerCat 6A U/UTP Plenum White 1000ft
CAA-00420P-08	1810000002	PowerCat 6A U/UTP Plenum Grey 1000ft
CAA-00420P-BL	1810000003	PowerCat 6A U/UTP Plenum Blue 1000ft
CAA-00420P-04	1810000004	PowerCat 6A U/UTP Plenum Black 1000ft
CAA-00420P-GR	1810000005	PowerCat 6A U/UTP Plenum Green 1000ft
CAA-00420R-02	1810000006	PowerCat 6A U/UTP Riser White 1000ft
CAA-00420R-08	1810000007	PowerCat 6A U/UTP Riser Grey 1000ft
CAA-00420R-BL	1810000008	PowerCat 6A U/UTP Riser Blue 1000ft
CAA-00420R-04	1810000009	PowerCat 6A U/UTP Riser Black 1000ft
CAA-00420R-GR	1810000010	PowerCat 6A U/UTP Riser Green 1000ft

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