

# PowerCat 6 U/UTP Cable >

Molex PowerCat 6 U/UTP cable is a key component of our end-to-end Category 6 solution designed for Gigabit Ethernet support.

## FEATURES AND ADVANTAGES

23AWG Conductors

ETL verified to TIA-568.2-D Category 6 standard

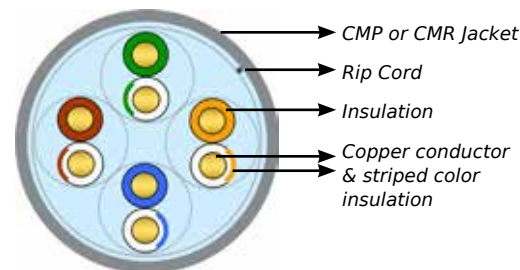
Plenum and Riser

Foot length markers

1000ft Reel in a Box

Splineless for quicker installation

UL & CSA Compliant



## SPECIFICATIONS

### Commercial Standards

ANSI/TIA-568.2-D  
PoE: IEEE 802.3bt-2018  
UL, CSA approved. File no E316962

### Fire Propagation Tests

CMP and CMR Listed

### Mechanical Characteristics

#### Riser

**Conductor:** Bare Copper Wire 23AWG  
**Cable diameter - in. (mm):**  
0.23 (5.8) Nom.  
**Nominal weight 1000ft reel - lbs. (kg):**  
Riser: 34.9 (15.83)  
**Nominal cable weight - lb./kft. (kg/km):**  
26 (38)  
**Maximum installation tension - lb. (N):**  
25 (110)  
**Minimum bend radius - in. (mm):**  
≥ 4 O.D @-20° C / -4°F  
**Insulation:** Polyethylene

#### Plenum

**Conductor:** Bare Copper Wire 23AWG  
**Cable diameter - in. (mm):** 0.23 (5.8) Nom.  
**Nominal weight 1000ft reel - lb. (kg):**  
29.6 (13.44)  
**Nominal cable weight - lb./kft. (kg/km):**  
26 (38)  
**Maximum installation tension - lb. (N):**  
25 (110)  
**Minimum bend radius:**  
≥ 4 O.D @-20° C / -4°F

#### Operating Temperature:

14°F to +140°F (-10°C to 60°C)

### Electrical / Optical Characteristics

**Mutual Capacitance:**  
5.6nF/100 m nom.  
**DC Resistance Maximum:**  
9.38 Ω/100 m maximum  
**Skew:** 45 ns/100 m maximum  
**Pair to Ground Unbalance:**  
**Plenum:** 330 pF/100m maximum

**Riser:** 160 pF/100m maximum

**Nominal Velocity of Propagation (NVP):**  
67-69% Nom.

### Environmental Compliance

RoHS Compliant

#### Sheath color RAL reference:

Blue RAL 5017 or 5015  
White RAL 9003  
Gray RAL 7037 or 7035  
Green RAL 6029  
Yellow RAL 1018

	Wire 1	Wire 2	
		Either	Or
Pair 1	Blue	White, Blue stripe	White
Pair 2	Orange	White, Orange stripe	White
Pair 3	Green	White, Green stripe	White
Pair 4	Brown	White, Brown stripe	White

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## SPECIFICATIONS (CONT.)

### PoE

#### Our PowerCat 6 system is suitable for PoE applications as defined below:

IEEE 802.3bt from Type 1 to Type 4, and CISCO UPoE+

#### Notes:

For new installations of PoE Type 3 / Class 5 and above that wish to be eligible for the Molex 25 year Application Assurance Warranty, we require Category 6A cable to be used throughout.

To confirm your PoE / RP3 cabling design is eligible for the Molex 25 year Application Assurance Warranty, your design must be verified and validated with the Molex PoE Calculator. Read more

<https://www.molexces.com/poe-calculator>

Molex recommends that the PoE feature on an individual switch port are power disabled prior to unplugging the associated powered Device.

Molex recommends that the full range of PowerCat 6 products be used in a system to maximize cabling and PoE performance. Details on Molex requirements for Warranty can be found at

<https://www.molexces.com/about-us/our-warranty/>

## TECHNICAL INFORMATION

Frequency	Insertion Loss Max. (dB)	NEXT (dB) Min.	RL (dB) Min.	PS NEXT (dB) Min.	ACR-F (dB) Min.	PS ACR-F (dB) Min.
1	2.0	74.3	20.0	72.3	67.8	64.8
4	3.8	65.3	23.0	63.3	55.8	52.8
8	5.3	60.8	24.5	58.8	49.7	46.7
10	6.0	59.3	25.0	57.3	47.8	44.8
16	7.6	56.2	25.0	54.2	43.7	40.7
20	8.5	54.8	25.0	52.8	41.8	38.8
25	9.5	53.3	24.3	51.3	39.8	36.8
31.25	10.7	51.9	23.6	49.9	37.9	34.9
62.5	15.4	47.4	21.5	45.4	31.9	28.9
100	19.8	44.3	20.1	42.3	27.8	24.8
125	22.4	42.8	19.4	40.8	25.9	22.9
200	29.0	39.8	18.0	37.8	21.8	18.8
250	32.8	38.3	17.3	36.3	19.8	16.8

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## ORDERING INFORMATION

Order No.	SAP No.	Description
CMR Riser		
CAA-0195R-BL	181740026	PowerCat 6 U/UTP Cable, 4 Pair, CMR Riser, PVC, 1000ft Reel in a box - Blue
CAA-0195R-02	181740027	PowerCat 6 U/UTP Cable, 4 Pair, CMR Riser, PVC, 1000ft Reel in a box - White
CAA-0195R-08	181740028	PowerCat 6 U/UTP Cable, 4 Pair, CMR Riser, PVC, 1000ft Reel in a box - Gray
CAA-0195R-GR	181740034	PowerCat 6 U/UTP Cable, 4 Pair, CMR Riser, PVC, 1000ft Reel in a box - Green
CAA-0195R-YL	181740033	PowerCat 6 U/UTP Cable, 4 Pair, CMR Riser, PVC, 1000ft Reel in a box - Yellow
CMP Plenum		
CAA-0195P-BL	181740023	PowerCat 6 U/UTP Cable, 4 Pair, CMP Plenum, PVC Alloy, 1000ft Reel in a box - Blue
CAA-0195P-02	181740024	PowerCat 6 U/UTP Cable, 4 Pair, CMP Plenum, PVC Alloy, 1000ft Reel in a box - White
CAA-0195P-08	181740025	PowerCat 6 U/UTP Cable, 4 Pair, CMP Plenum, PVC Alloy, 1000ft Reel in a box - Gray
CAA-0195P-GR	181740031	PowerCat 6 U/UTP Cable, 4 Pair, CMP Plenum, PVC Alloy, 1000ft Reel in a box - Green
CAA-0195P-3KBL	181740029	PowerCat 6 U/UTP Cable, 4 Pair, CMP Plenum, PVC Alloy, 3000ft Reel - Blue
CAA-0195P-YL	181740030	PowerCat 6 U/UTP Cable, 4 Pair, CMP Plenum, PVC Alloy, 1000ft Reel in a box - Yellow

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