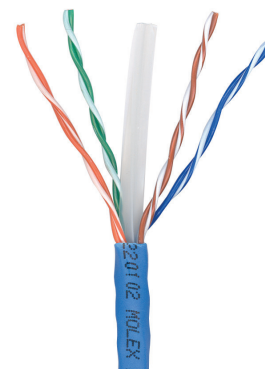


PowerCat 6 U/UTP Cable PVC >

Molex Connected Enterprise Solutions PowerCat 6 (Category 6) 4 Pair U/UTP cable has been designed to support high speed data transmission systems such as Gigabit Ethernet. The cable is part of the PowerCat 6 range of products that are designed to comply with the Category 6 specification.

We recommend that the full range of PowerCat 6 products are used in a system to maximize cabling performance, providing extended frequency response and enhanced bandwidth.



FEATURES AND ADVANTAGES >

Enhanced performance 4 pair PVC cable

Category 6 compliant

Color coded for ease of termination

500m reel

PVC sheath

SPECIFICATIONS

Reference Information

COMMERCIAL STANDARDS:

ISO/IEC 11801, EIA/TIA -568-B2.1, EN50173

FIRE PROPAGATION TEST:

IEC 60332-1

Technical Information

MECHANICAL CHARACTERISTICS:

Tested in accordance with IEC 61300-3-3 and IEC 61300-3-4

Conductor Size: 23 AWG

Primary Insulation: Polyolefin

Sheath Type: PVC

External O.D.: 6.3mm (nominal)

Average NVP%: 68%

Temperature Range:

0°C to +50°C (Installation)-20°C to +70°C (Operational)

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/>

www.molexces.com/products/copper/cat6/

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PowerCat 6 U/UTP Cable PVC

SPECIFICATIONS (CONT.)

Electrical Characteristics @ 20°C	
DC Resistance	80 Ohms/km (Max)
Resistance Unbalance	2% (Max)
Mutual capacitance @ 1kHz	42 nF/km (Max)
Capacitance Unbalance	1000 pF/km (Max)
Delay Skew	450 nsec/km (Max)
Velocity of Propagation	0.68 c
Characteristic Impedance	100 Ohms ±15% @ 1.0 Mhz - 100 Mhz
	100 Ohms ±(15 + 0.05 (f-100)) @ 100 Mhz - 250 Mhz

Electrical Characteristics for Category 6								
Frequency MHz	Attenuation dB/100m	NEXT dB	PSNEXT dB	ACR	PSACR	ELFEXT dB	PSELFEXT dB	Return Loss
1	2.0	74.3	72.3	72.3	70.3	67.8	64.8	20.0
4	3.8	65.3	63.3	61.5	59.5	55.8	52.8	23.0
8	5.3	60.8	58.8	55.4	53.4	49.7	46.7	24.5
10	6.0	59.3	57.3	53.3	51.3	47.8	44.8	25.0
16	7.6	56.2	54.2	48.6	46.7	43.7	40.7	25.0
20	8.5	54.8	52.8	46.3	44.3	41.8	38.8	25.0
25	9.5	53.3	51.3	43.8	41.8	39.8	36.8	24.3
31.25	10.7	51.9	49.9	41.1	39.2	37.9	34.9	23.6
62.5	15.4	47.4	45.4	32	30	31.9	28.9	21.5
100	19.8	44.3	42.3	24.5	22.5	27.8	24.8	20.1
200	29.0	39.8	37.8	10.8	8.8	21.8	18.8	18.0
250	32.8	38.3	36.3	5.5	3.5	19.8	16.8	17.3

ORDERING INFORMATION

Order No.	SAP No.	Description
CAA-00277-0H	181740151	PowerCat 6 U/UTP Cable PVC (per meter) - Blue
CAA-00277-0E	181740152	PowerCat 6 U/UTP Cable PVC (per meter) - Gray
CAA-00277-0J	181740153	PowerCat 6 U/UTP Cable PVC (per meter) - Green
CAA-00277-0K	181740154	PowerCat 6 U/UTP Cable PVC (per meter) - Yellow
CAA-00277-0N	181740155	PowerCat 6 U/UTP Cable PVC (per meter) - Orange
CAA-00277-0C	181740156	PowerCat 6 U/UTP Cable PVC (per meter) - Red
CAA-00277-BK	181740157	PowerCat 6 U/UTP Cable PVC (per meter) - Black
CAA-00277-0W	181740191	PowerCat 6 U/UTP Cable PVC (per meter) - White
CAA-00277-VL	181740192	PowerCat 6 U/UTP Cable PVC (per meter) - Violet

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

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