

PowerCat 6 Cable

U/UTP LS0H ➤

Molex PowerCat 6 (C6) 4 Pair UTP cable has been designed to support high speed data transmission systems. 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.



PowerCat 6 U/UTP LS0H Cable

FEATURES AND ADVANTAGES

4 pair LS0H cable

Category 6 compliant

Color coded for ease of termination

305m reel in a box

SPECIFICATIONS

Commercial Standards

EN 50173 2nd Edition, ISO/IEC 11801
2nd Edition, EIA / TIA 568.2-D
IEC 60754-2, IEC 61034-2
Fire Propagation Test: UL 1581
VW1, IEC 60332.1, EN0256-2-1
Performance Characters - Category 6 EIA / TIA 568.2-D
Support IEEE 802.3 1000Base-T Zero BER
INSTANT VOLT rated 300V

Oxygen index > 29% (ASTM D 2863)
Temperature index: 250 deg.C. (ASTM D 2863)
Acid Gas generation: max 0.5% by weight
(BS EN 50267-2-1)

RoHS Compliant

Mechanical

Conductor Size: 23 AWG Solid Bare
Copper Wire
Primary Insulation: Solid Polyethylene
Nominal O.D.: 1.045 + 0.02mm

Twinning: Right hand lay
Sheath Type: LS0H 332.1
Minimal Wall: 0.55mm
Nominal O.D.: 6.1mm
Cable weight: 13.6 Kgs Nominal
NVP: 67%
Bending Radius: <4 X Cable Diameter
(mm) at -20°C ± 1°C

Pulling Force:

Short Term: 400N
Long Term: 110N

Temperature Range

Installation: 0°C to +50°C
Operation: -20°C to +70°C

Electrical

Characteristic Impedance: 100±15Ω
Conductor Resistance: ≤9.38Ω/100m
Mutual Capacitance: <5.6nF/100m
Resistance Unbalance: 5% Max
Capacitance Unbalance: 330pF/100m
Delay Skew: <45nS

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+
- IEEE 802.3bt Type 1 up to 15.4W (350mA per pair / 2 pairs energized)
- IEEE 802.3bt Type 2 up to 30W (600mA per pair / 2 pairs energized)
- IEEE 802.3bt Type 3 up to 60W and CISCO UPoE (600mA per pair / 4 pairs energized)
- IEEE 802.3bt Type 4 up to 90W and CISCO UPoE+ (1000mA per pair / 4 pairs energized)

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.

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

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PowerCat 6 Cable

U/UTP LSOH

SPECIFICATIONS (CONT)

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/>

TRANSMISSION PROPERTIES

Frequency MHz	Insertion Loss dB/100m	RL dB	NEXT dB	PSNEXT dB	ELFEXT dB	PSELFEXT dB	ACR dB	PSACR dB
1	2.0	20.00	74.30	72.3	67.8	64.8	72.3	70.3
4	3.8	23.00	65.30	63.3	55.8	52.8	61.5	59.5
8	5.3	24.50	60.80	58.8	49.7	46.7	55.5	53.5
10	6.0	25.00	59.30	57.3	47.8	44.8	53.3	51.3
16	7.6	25.00	56.20	54.2	43.7	40.7	48.6	46.6
20	8.5	25.00	54.80	52.8	41.8	38.8	46.3	44.3
25	9.5	24.30	53.30	51.3	39.8	36.8	43.8	41.8
31.25	10.7	23.60	51.90	49.9	37.9	34.9	41.2	39.2
62.5	15.4	21.50	47.40	45.4	31.9	28.9	32.0	30.0
100	19.8	20.10	44.30	42.3	27.8	24.8	24.5	22.5
200	29.0	18.00	39.80	37.8	21.8	18.8	10.8	8.8
250	32.8	17.30	38.30	36.3	19.8	16.8	5.5	3.5
350	39.8	16.20	36.20	34.2	16.9	13.9	-	-
450	46.3	15.50	34.50	32.5	14.7	1.7	-	-
550	51.8	14.90	33.20	31.2	13.0	0.9	-	-
600	54.5	14.70	32.60	30.6	12.5	0.4	-	-

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ORDERING INFORMATION

Order No.	SAP No.	Description
CAA-00267	0181740086	PowerCat Cat6 Cable 305m reel in a box U/UTP LS0H 332.1 - Violet
CAA-00267-BL	0181740176	PowerCat Cat6 Cable 305m reel in a box U/UTP LS0H 332.1 - Blue
CAA-00267-GY	0181740180	PowerCat Cat6 Cable 305m reel in a box U/UTP LS0H 332.1 - Gray
CAA-00267-YL	0181740182	PowerCat Cat6 Cable 305m reel in a box U/UTP LS0H 332.1 - Yellow
CAA-00267-RD	Consult Molex	PowerCat Cat6 Cable 305m reel in a box U/UTP LS0H 332.1 - Red
CAA-00267-GR	Consult Molex	PowerCat Cat6 Cable 305m reel in a box U/UTP LS0H 332.1 - Green

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