

Features and Benefits

Molex Premise Networks PowerCat 6 (C6) 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 maximise cabling performance, providing extended frequency response and enhanced bandwidth.

- Compliant to TIA / EIA 568-B,2-1 Category 6 cable specifications
- Supports ultrahigh speed data networks such as Gigabit Ethernet (1000 Base-T and 1000 Base-TX) and beyond
- Incorporates central spine maintaining pair separation during installation to ensure premium performance after installation
- UL listed
- CM rated cable
- Supplied in convenient 305m "Reel in a box"
- RoHS compliant

Commercial Standards

Category 6 EIA/TIA 568 C.2

Technical Information

Mechanical Characteristics

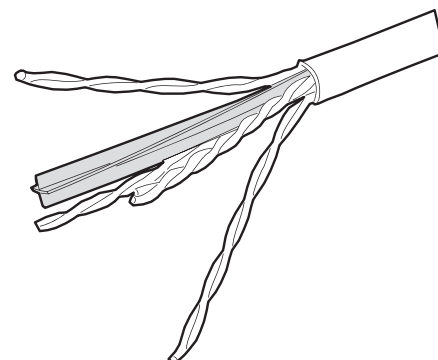
Conductor: Solid Bare Copper
 AWG: 23
 Insulation: PE
 Average Thickness ($\pm 0.03\text{mm}$): 0.23
 Min. Point Thickness (mm): 0.18
 Insulation Dia. ($\pm 0.05\text{mm}$): 1.04
 Twisting Lay Length (mm): 30 underneath
 Cabling Lay Length ($\pm 10\text{mm}$): 140
 Filler: PE
 Jacket: PVC
 Average Thickness ($\pm 0.05\text{mm}$): 0.50
 Min. Point Thickness (mm): 0.46
 Weight (kg/km): 14
 Operating Temperature: maximum 75°C
 Maximum Pulling Force: 100N

Electrical/Optical Characteristics

NVP (%): As listed on sheath
 Delay Skew: 45ns Max
 Impedance: 100 ± 15 Ohms
 Current Rating: 1.5 A Max
 Conductor DC Resistance: 66.5Ω/km
 Voltage: 150VAC
 Propagation delay: 535ns/100m @ 250MHz
 Mutual Capacitance: 5.6nF/100m Nominal
 Insulation Resistance: 500 MΩ Minimum
 Dielectric Strength: 1000 V RMS
 Contact Resistance: 10 mΩ Max

Electrical/Optical Characteristics

Frequency	Return Loss	Attenuation	NEXT	ACR	PSNEXT	ELFEXT	PSELFEXT	Delay
1	20.0	2.0	74.3	72	72.3	67.8	64.8	570.0
4	23.0	3.8	65.3	61	63.3	55.8	52.8	552.0
10	25.0	6.0	59.3	53	57.3	47.8	44.8	545.4
20	25.0	8.5	54.8	46	52.8	41.8	38.8	542.0
31.25	23.6	10.7	51.9	41	49.9	37.9	34.9	540.4
62.5	21.5	15.4	47.4	32	45.4	31.9	28.9	538.6
100	20.1	19.8	44.3	25	42.3	27.8	24.8	537.6
150	18.9	24.7	41.7	16.9	39.7	24.3	21.3	536.9
200	18	29.0	39.8	10.8	37.8	21.8	18.8	536.5
250	17.3	32.8	38.3	5.5	36.3	19.8	16.8	536.3



ORDERING INFORMATION

Order No.	SAP No.	Description
CAA-00076	Consult Molex	PowerCat 6 4 Pair Cable, CM Rated, 305m, Reel in a Box - Blue
CAA-00176	Consult Molex	PowerCat 6 4 Pair Cable, CM Rated, 305m, Reel in a Box - Grey

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