



Cat6 4P 23AWG CMR

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APPLICATIONS

IEEE 802.3: 1000Base-T; 100Base-T; 10Base-T
IEEE 802.5: 4/6 Mbps Token Ring
155 / 662 Mbps ATM
Gigabit Ethernet

STANDARDS COMPLIANCE

TIA/EIA 568-C.2
ISO/IEC 11801
UL 444 UL# E356794
NEMA WC-66
KS C 3342

FIRE RATING

CMR: UL 1666

CONSTRUCTION

Conductor	Bare copper wire	23 AWG
Insulation	Polyethylene	Ø 0.95 mm
Twisting	4 twisted pairs with cross filler, 2 single conductors paired Twisted pair color code: 1: Blue + White/Blue 2: Orange + White/Orange 3: Green + White/Green 4: Brown + White/Brown	
Cable lay-up	4 pairs with different pitches	
Outer jacket	CMR	
Outer diameter	5.8 mm ± 0.5 mm	



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MECHANICAL PROPERTIES

Bending Radius: $\geq 4 \times OD$ (without load)
Temperature range: during operation: $-20^{\circ}\text{C} \sim 75^{\circ}\text{C}$
during installation: $0^{\circ}\text{C} \sim 60^{\circ}\text{C}$

ELECTRICAL PROPERTIES (at $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$)

DC resistance : Max. $9.38 \Omega / 100 \text{ m}$ at 20°C
Resistance unbalance : Max. 5 % at 20°C
Mutual capacitance: Max. $5.6 \text{ nf} / 100 \text{ m}$ at 1 kHz
Cap. unbalance to ground: Max. $330 \text{ pf} / 100 \text{ m}$ at 1 kHz
Nominal velocity of propagation: 67 %

TRANSMISSION CHARACTERISTICS ACC. TIA/EIA 568-C.2 CAT6 (20°C)

Freq.	RL	IL	NEXT	PS-NEXT	ACRF	PS-ACRF	delay	skew
MHz	dB	dB	dB	dB	dB	dB	ns	ns
	Min.	Max.	Min.	Min.	Min.	Min.	Max.	Max.
1	20.0	2.0	74.3	72.3	67.8	64.8	570	45
4	23.0	3.8	65.3	63.3	55.8	52.8	552	45
8	24.5	5.3	60.8	58.8	49.7	46.7	547	45
10	25.0	6.0	59.3	57.3	47.8	44.8	545	45
16	25.0	7.6	56.3	54.3	43.7	40.7	543	45
20	25.0	8.5	54.8	52.8	41.8	38.8	542	45
25	24.3	9.5	53.3	51.3	39.8	36.8	541	45
31.25	23.6	10.7	51.9	49.9	37.9	34.9	540	45
62.5	21.5	15.4	47.4	45.4	31.9	28.9	539	45
100	20.1	19.8	44.3	42.3	27.8	24.8	538	45
200	18.0	29.0	39.8	37.8	21.8	18.8	536	45
250	17.3	32.8	38.3	36.3	19.8	16.8	536	45
400	15.9	43.0	35.3	33.3	15.8	12.8	536	45