



Cable Master Electric Wire & Cable Co., Ltd

No. 46, Lane 344, Chung Hu St., Yingko Dist., New Taipei City, Taiwan

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CATEGORY 6 UTP, 250MHz

STANDARD COMPLIANCE

UL LISTED: UL 444

ETL VERIFIED TO ANSI/TIA-568-C.2 CATEGORY 6: HORIZONTAL CABLE & PATCH CABLE

IEC 61156-5 FOR HORIZONTAL CABLE

IEC 60332-1-2 FLAME TEST

RoHS COMPLIANCE FOR THE REQUIREMENT OF EUROPEAN UNION ISSUED DIRECTIVE 2011/65/EU

UL VERIFIED TO IEC 62821-1 LSHF(Low-Smoke-Halogen-Free) JACKET



CONSTRUCTION

		CAT. 6 UTP SOLID	CAT. 6 UTP STRANDED
CONDUCTOR	MATERIAL & SIZE	BARE COPPER, 23AWG	BARE COPPER, 24AWG
CROSS	MATERIAL	HDPE	
INSULATION	MATERIAL	HDPE(CMI-75E)	HDPE(CMI-75E)
	THICKNESS	MIN. AVERAGE THICKNESS: 0.178mm MIN. THICKNESS: 0.153mm	MIN. AVERAGE THICKNESS: 0.201mm: MIN. THICKNESS: 0.175mm
	COLOR CODE	Pair 1: Blue & White/Blue Pair 2: Orange & White/Orange	Pair 3: Green & White/Green Pair 4: Brown & White/Brown
JACKET	MATERIAL	75 ° C PVC Compound (CMI-80S) OR LSHF (Low-Smoke Halogen Free)	75 ° C PVC Compound (CMI-80S) OR LSHF (Low-Smoke Halogen Free)
	THICKNESS	MIN. AVERAGE THICKNESS: 0.585mm MIN. THICKNESS: 0.458mm	MIN. AVERAGE THICKNESS: 0.585mm: MIN. THICKNESS: 0.458mm
	OVERALL DIAMETER	6.3 mm +/- 0.3mm	6.3 mm +/- 0.3mm

ELECTRIC REQUIREMENT (CABLE LENGTH/100M)

	CAT. 6 UTP SOLID	CAT. 6 UTP STRANDED
CHARACTERISTIC IMPEDENCE(Zo)	85~115Ω (1~250 MHz)	85~115Ω (1~250 MHz)
DC. RESISTANCE CAPACITANCE UNBALANCE	5%	5%
PAIR-TO-GROUND CAPACITANCE UNBALANCE	330 pF/100M Max	330 pF/100M Max
CONDUCTOR RESISTANCE	7.32Ω/ 100M 20 ° C MAX.	8.76Ω/ 100M 20 ° C MAX.
MUTUAL CAPACITANCE	5600 pF/100M MAX.	5600 pF/100M MAX.
SPARK TEST	2.5KV	2.5KV
NOMINAL VELOCITY OF PROPAGATION (N.V.P.)	69%	69%



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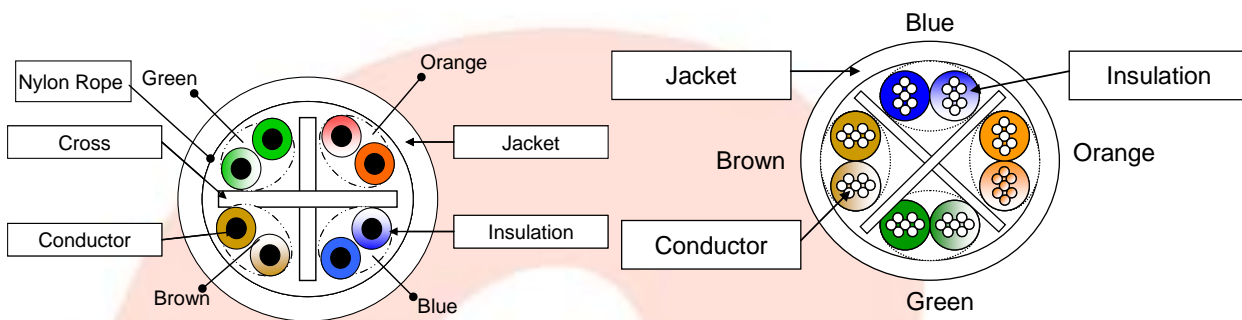
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ENVIRONMENTAL CONDITION & USAGE

TEMPERATURE RANGE	SHIPPING & STORAGE	-40°C to 75°C
	INSTALLATION	0°C to 60°C
	OPERATION	-40°C to 75°C
MINIMUM BENDING RADIUS	≥ 4 TIMES OF OVERALL DIAMETER	
MAXIMUM PULLING TENSION	≤ 110 N	

SECTION PLANS



TRANSMISSION REQUIREMENTS

FREQUENCY (MHz)	MAX. ATTENUATION (dB/100m)		MIN. Pr-Pr NEXT (dB)	MIN. PSNEXT (dB)	MIN. RETURN LOSS (dB)	
	SOLID	STRANDED			SOLID	STRANDED
1	2.0	2.4	74.3	72.3	20.0	20.0
4	3.8	4.5	65.3	63.3	23.0	23.0
10	6.0	7.1	59.3	57.3	25.0	25.0
16	8.5	10.2	54.8	52.8	25.0	25.0
20	10.7	12.8	51.9	49.9	23.6	23.3
31.25	15.4	18.5	47.4	45.4	21.5	20.7
62.5	19.8	23.8	44.3	42.3	20.1	19
100	29.0	34.8	39.8	37.8	18.0	16.4
250	32.8	39.4	38.3	36.3	17.3	15.6

Values show on tables above are for reference purpose only.