



Cable Master Electric Wire & Cable Co., Ltd

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CATEGORY 5e UTP, 100MHz

STANDARD COMPLIANCE

UL LISTED: UL 444 TYPE CM

ETL VERIFIED TO ANSI/TIA-568-C.2 CATEGORY 5e: 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. 5e UTP SOLID	CAT. 5e UTP STRANDED
CONDUCTOR	MATERIAL & SIZE	BARE COPPER, 24AWG	BARE COPPER, 24AWG
INSULATION	MATERIAL	HDPE(CMI-75E)	HDPE(CMI-75E)
	THICKNESS	MIN. AVERAGE THICKNESS: 0.178mm MIN. THICKNESS: 0.153mm	MIN. AVERAGE THICKNESS: 0.178mm: MIN. THICKNESS: 0.153mm
	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	5.0 mm +/- 0.3mm	5.0 mm +/- 0.3mm

ELECTRIC REQUIREMENT (CABLE LENGTH/100M)

	CAT. 5e UTP SOLID	CAT. 5e UTP STRANDED
CHARACTERISTIC IMPEDENCE(Zo)	85~115Ω (1~100 MHz)	85~115Ω (1~100 MHz)
DC. RESISTANCE CAPACITANCE UNBALANCE	5%	5%
PAIR-TO-GROUND CAPACITANCE UNBALANCE	330 pF/100M Max	330 pF/100M Max
CONDUCTOR RESISTANCE	9.38Ω/ 100M 20 ° C	8.76Ω/ 100M 20 ° C
MUTUAL CAPACITANCE	5600 pF/100M MAXIMUM	5600 pF/100M MAXIMUM
SPARK TEST	2.5KV	2.5KV
NOMINAL VELOCITY OF PROPAGATION (N.V.P.)	69%	69%



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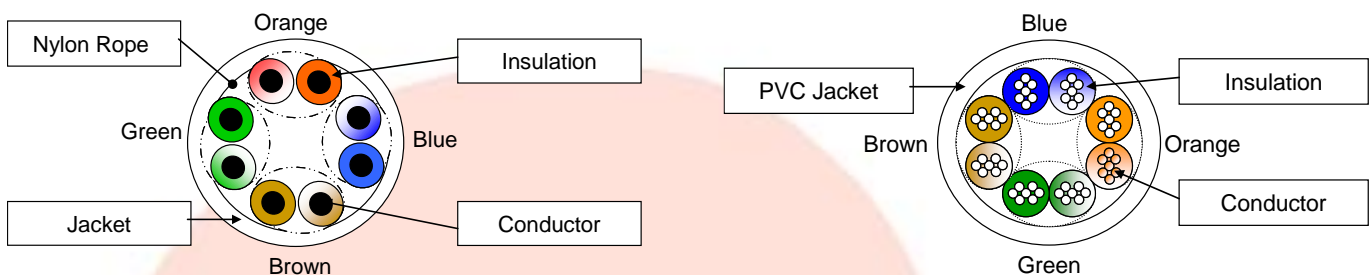
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ENVIRONMENTAL CONDITION & USAGE

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	65.3	62.3	20.0	20.0
4	4.1	4.9	56.3	53.3	23.0	23.0
10	6.5	7.8	50.3	47.3	25.0	25.0
16	8.2	9.9	47.3	44.4	25.0	25.0
20	9.3	11.1	45.8	42.8	25.0	25.0
25	10.4	12.5	44.4	41.3	24.3	24.2
31.25	11.7	14.1	42.9	39.9	23.6	23.3
62.5	17.0	20.4	38.4	35.4	21.5	20.7
100	22.0	26.4	35.3	32.3	20.1	19.0

Values show on tables above are for reference purpose only.