



# 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 F-UTP, 250MHZ

### STANDARD COMPLIANCE

UL LISTED: UL 444

ISO/IEC 11801 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 F/UTP SOLID	CAT. 6 F/UTP STRANDED
CONDUCTOR	MATERIAL & SIZE	BARE COPPER, 23AWG	BARE COPPER, 26AWG
INSULATION	MATERIAL	HDPE(CMI-75E)	HDPE(CMI-75E)
	THICKNESS	MIN. AVERAGE THICKNESS: 0.201mm MIN. THICKNESS: 0.175mm	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
SHIELD	MATERIAL	DRAIN WIRE (TINNED COPPER) & ALUMINUM-MYLAR TAPE	
CROSS	MATERIAL	HDPE	
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	6.8 MM +/- 0.3mm	6.6 mm +/- 0.3mm

### ELECTRIC REQUIREMENT (CABLE LENGTH/100M)

	CAT. 6 F/UTP SOLID	CAT. 6 F/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.	14.0Ω/ 100M 20 ° C MAX.
MUTUAL CAPACITANCE	5600 pF/100M MAXIMUM	5600 pF/100M MAXIMUM
SPARK TEST	2.5KV	2.5KV
NOMINAL VELOCITY OF PROPAGATION (N.V.P.)	70%	76%



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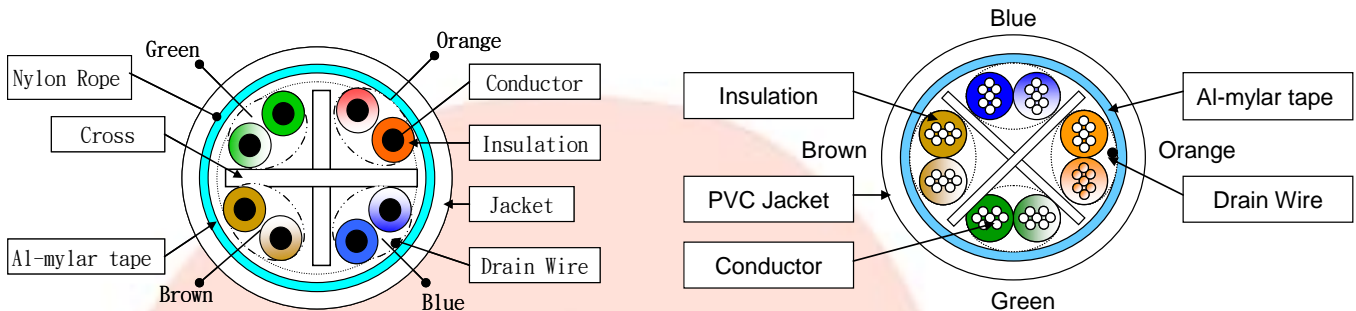
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## ENVIRONMENTAL CONDITION & USAGE

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	2.8	3.2	74.3	72.3	20.0	20.0
10	6.5	9.9	59.3	57.3	25.0	25.0
20	8.5	13.8	54.8	52.8	25.0	25.0
31.25	10.7	17.7	51.9	49.9	23.6	23.3
62.5	15.4	25.6	47.4	45.4	21.5	20.7
100	19.8	33.0	44.3	42.3	20.1	19.0
200	29.0	34.9	39.8	37.8	18.0	16.4
250	32.8	39.5	38.3	36.3	17.3	15.6

Values show on tables above are for reference purpose only.