



# 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 6A S-FTP, 500MHz

### STANDARD COMPLIANCE

UL LISTED: UL 444

ISO/IEC 11801 CATEGORY 6A: HORIZONTAL CABLE & PATCH CABLE

IEC 61156-5 FOR HORIZONTAL CABLE

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

IEC 60332-1-2 FLAME TEST

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



### CONSTRUCTION

		CAT. 6A S/FTP SOLID	CAT. 6A S/FTP STRANDED
<b>CONDUCTOR</b>	<b>MATERIAL &amp; SIZE</b>	BARE COPPER, 23AWG	BARE COPPER, 26AWG
<b>INSULATION</b>	<b>MATERIAL</b>	HDPE(CMI-75E)	HDPE(CMI-75E)
	<b>THICKNESS</b>	MIN. AVERAGE THICKNESS: 0.45mm MIN. THICKNESS: 0.38mm	MIN. AVERAGE THICKNESS: 0.38mm: MIN. THICKNESS: 0.295mm
	<b>COLOR CODE</b>	Pair 1: Blue & White/Blue Pair 2: Orange & White/Orange	Pair 3: Green & White/Green Pair 4: Brown & White/Brown
<b>SHIELD</b>	<b>MATERIAL</b>	-ALUMINUM-MYLAR TAPE -DRAIN WIRE (TINNED COPPER CONDUCTOR) -TINNED COPPER BRAID	
<b>JACKET</b>	<b>MATERIAL</b>	75 ° C PVC Compound (CMI-80S) OR 75 ° C LSHF (Low-Smoke Halogen Free)	75 ° C PVC Compound (CMI-80S) OR 75 ° C LSHF (Low-Smoke Halogen Free)
	<b>THICKNESS</b>	MIN. AVERAGE THICKNESS: 0.585mm MIN. THICKNESS: 0.458mm	MIN. AVERAGE THICKNESS: 0.585mm: MIN. THICKNESS: 0.458mm
	<b>OVERALL DIAMETER</b>	8.0 mm +/- 0.3mm	6.6 mm +/- 0.3mm

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

	CAT. 6A S/FTP SOLID	CAT. 6A S/FTP STRANDED
<b>CHARACTERISTIC IMPEDENCE(Zo)</b>	85~115Ω (1~500 MHz)	85~115Ω (1~500 MHz)
<b>DC. RESISTANCE CAPACITANCE UNBALANCE</b>	2%	2%
<b>PAIR-TO-GROUND CAPACITANCE UNBALANCE</b>	330 pF/100M Max	330 pF/100M Max
<b>CONDUCTOR RESISTANCE</b>	7.32Ω/ 100M 20 ° C MAX.	14.0Ω/ 100M 20 ° C MAX.
<b>MUTUAL CAPACITANCE</b>	5600 pF/100M Max.	5600 pF/100M Max.
<b>SPARK TEST</b>	2.5KV	2.5KV
<b>NOMINAL VELOCITY OF</b>	76%	76%



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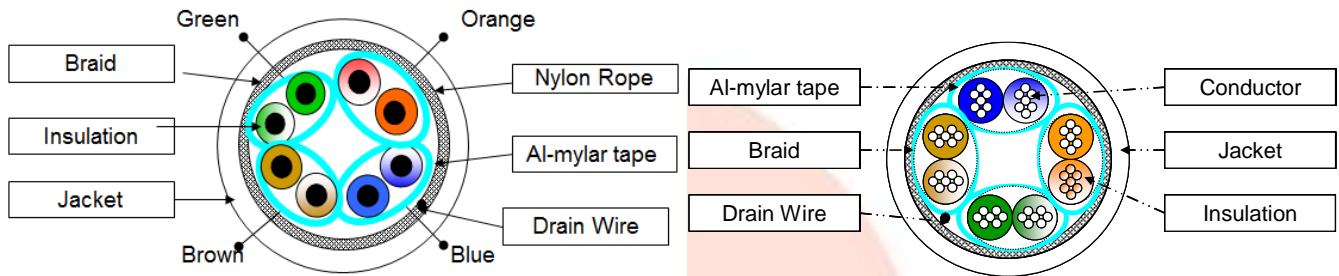
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<b>PROPAGATION (N.V.P.)</b>		
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## ENVIRONMENTAL CONDITION & USAGE

<b>TEMPERATURE RANGE</b>	<b>SHIPPING &amp; STORAGE</b>	-20°C to 75°C
	<b>INSTALLATION</b>	0°C to 60°C
	<b>OPERATION</b>	-20°C to 75°C
<b>MINIMUM BENDING RADIUS</b>	≥ 4 TIMES OF OVERALL DIAMETER	
<b>MAXIMUM PULLING TENSION</b>	≤ 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	3.4	4.5	74.3	72.3	20.0	20.0
8	6.4	6.8	60.8	58.8	24.5	24.5
16	9.1	9.5	56.2	54.2	25.0	25.0
25	11.4	11.9	53.3	51.3	24.3	24.2
100	23.8	23.8	44.3	42.3	19.0	19.0
250	39.4	39.4	38.3	36.3	15.6	15.6
400	51.6	51.6	35.3	33.3	13.8	13.8
500	56.4	56.4	33.8	31.8	13.0	13.0

Values show on tables above are for reference purpose only.