

# Category 6 U/FTP MarineSafe

Datasheet: SS1323-AP-EU-ME ENv1



## APPLICATION

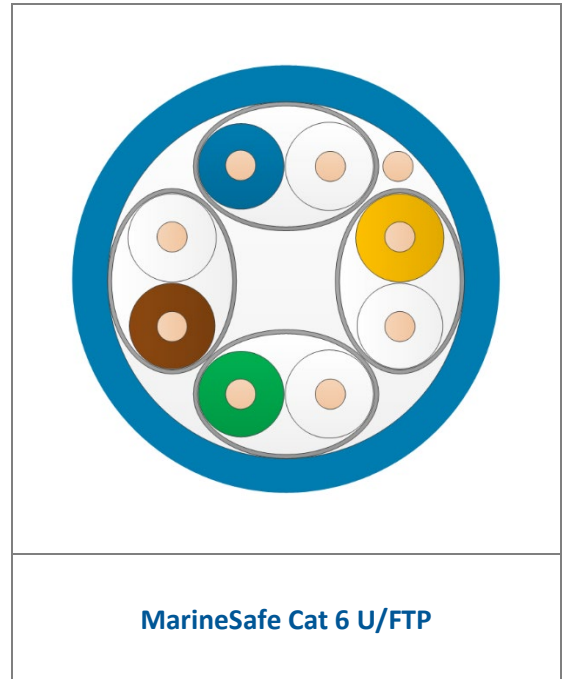
Leviton MarineSafe Category 6 U/FTP cables exceed Category 6 performance standards. They are specified to 250MHz and are suitable for use in all Class E structured wiring cable systems. The applications supported include Gigabit Ethernet, Power over Ethernet, and broadband video transmissions at frequencies up to 250MHz. Leviton MarineSafe cables are third party certified to meet the requirements of Lloyds Register Type Approval for marine and offshore environments.

## FEATURES AND BENEFITS

- 23 AWG solid annealed copper wire
- 4 twisted pairs individually screened and cabled together – providing EMI immunity
- Designed to support all Class E protocols including Gigabit Ethernet
- Enhanced LSHF\* sheath
- CE marked for CPR
- Included in the Leviton Limited 25-Year System Warranty when used in conjunction with Leviton copper connectivity. System warranties are available for qualified projects installed by certified contractors
- Lloyds Register type approved



\* Low Smoke halogen free



## STANDARDS

- Designed and constructed to give optimum electrical performance to the following standards:
  - ISO/IEC 11801 Class E, IEC 61156-5
  - EN50173-1 and EN 50288-5-1
  - ANSI/TIA 568.2-D
- Recommended for PoE standards:
  - IEEE 802.3bt PoE Type 1, 2, 3, 4 (90 watts max)
  - Exceeds IEEE 802.3bt standard up to 0.5 amps per conductor (100 watts) continuously
  - Cisco UPOE, UPOE+ (90 watts max)
  - Power over HDBaseT™ PoH (95 watts max)

## REACTION TO FIRE

Flammability Rating	IEC 60332-1-2, IEC 60332-3-24
CPR Rating	Eca
Acid Gas Emission	IEC 60754-2

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## PRIMARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Conductor Loop Resistance	Max 19 $\Omega$ /100m	14 $\Omega$ /100m
Conductor Resistance Unbalance	Max 2%	0.1%
Insulation Resistance	>5G $\Omega$ .km	>50G $\Omega$ .km
Dielectric Strength	2500 Vdc/2secs	Pass

## SECONDARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Velocity of Propagation	<534nsec/100m @ 100MHz	413nsec/100m @ 100MHz
Delay Skew	Max 45nsec/100m @ 100MHz	4nsec/100m @ 100MHz
Mean Characteristic Impedance	100 $\Omega$ +/- 5 $\Omega$ @ 100MHz	100 $\Omega$ $\pm$ 3 $\Omega$ @ 100MHz
Coupling Attenuation	Type 1b	75dB
Transfer Impedance	Grade 2	28m $\Omega$ /m @ 10MHz

## ELECTRICAL PERFORMANCE

Frequency (MHz)		1	4	10	20	100	200	250	500	550
Insertion Loss (dB/100m)	Standard	2.0	3.8	6.0	8.5	19.8	29.0	32.8	N/A	N/A
	<b>Typical</b>	<b>1.9</b>	<b>3.5</b>	<b>5.5</b>	<b>7.8</b>	<b>18.0</b>	<b>26.1</b>	<b>29.4</b>	<b>43.0</b>	<b>45.4</b>
NEXT (dB)	Standard	75.3	66.3	60.3	55.8	45.3	40.8	39.3	N/A	N/A
	<b>Typical</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>94.3</b>	<b>88.9</b>	<b>87.1</b>	<b>81.7</b>	<b>81.0</b>
PSNEXT (dB)	Standard	72.3	63.3	57.3	52.8	42.3	37.8	36.3	N/A	N/A
	<b>Typical</b>	<b>97.0</b>	<b>97.0</b>	<b>97.0</b>	<b>97.0</b>	<b>91.3</b>	<b>85.9</b>	<b>84.1</b>	<b>78.7</b>	<b>78.0</b>
ACR-F (dB)	Standard	67.8	58.0	50.0	44.0	30.0	24.0	22.0	N/A	N/A
	<b>Typical</b>	<b>90.0</b>	<b>90.0</b>	<b>90.0</b>	<b>84.8</b>	<b>70.8</b>	<b>64.8</b>	<b>62.8</b>	<b>56.8</b>	<b>56.0</b>
PSACR-F (dB)	Standard	64.8	55.0	47.0	41.0	27.0	21.0	19.0	N/A	N/A
	<b>Typical</b>	<b>87.0</b>	<b>87.0</b>	<b>87.0</b>	<b>81.8</b>	<b>67.8</b>	<b>61.8</b>	<b>59.8</b>	<b>53.8</b>	<b>53.0</b>
Return Loss (dB)	Standard	20.0	23.0	25.0	25.0	20.1	18.0	17.3	N/A	N/A
	<b>Typical</b>	<b>27.0</b>	<b>30.0</b>	<b>30.0</b>	<b>30.0</b>	<b>25.1</b>	<b>23.0</b>	<b>22.3</b>	<b>20.2</b>	<b>19.9</b>

- The standard values shown are the most demanding taken from the relevant IEC, TIA and EN specifications. These standard values are the maximum permissible for Insertion loss and the minimum permissible for other parameters
- N/A – Not Applicable

## INSTALLATION

Temperature (Installation)	0°C to +50°C	Min Bend Radius (Installation)	8 x Outer Diameter
Temperature (Operation)	-20°C to +75°C	Min Bend Radius (Operation)	4 x Outer Diameter
Max Tensile Load (Installation)	10kg	Field Test NVP Value	0.80
Segregation Class	Class C		

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## STANDARD PACKAGING SPECIFICATIONS - REELS

Part Number	Color	Packaging Length (m)	Nominal Cable Diameter (mm)	Nominal Cable Weight (kg/km)	Reel Size Flange Diameter x Width (mm)	Gross Weight (kg/Item)	Items Per Pallet
MarineSafe C6U/FTP-500BU	Blue*	500	7.4	57.6	400 x 390	31.3	12
MarineSafe C6U/FTP-1000BU	Blue*	1000	7.4	57.6	600x 405	64.2	4

\*Also available in a range of non-standard colors

## COUNTRY OF ORIGIN

COO: United Kingdom

*“Leviton is **dedicated to designing, developing and manufacturing** sustainable **high-performance** structured cabling and specialty **cabling solutions.**”*

The information contained in this document is valid and correct at the time of issue. Leviton reserves the right to modify details without notice in light of subsequent standard/specification changes and ongoing technical developments.