

# Category 6A S/FTP MarineSafe

Datasheet: GD100762v8

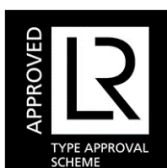
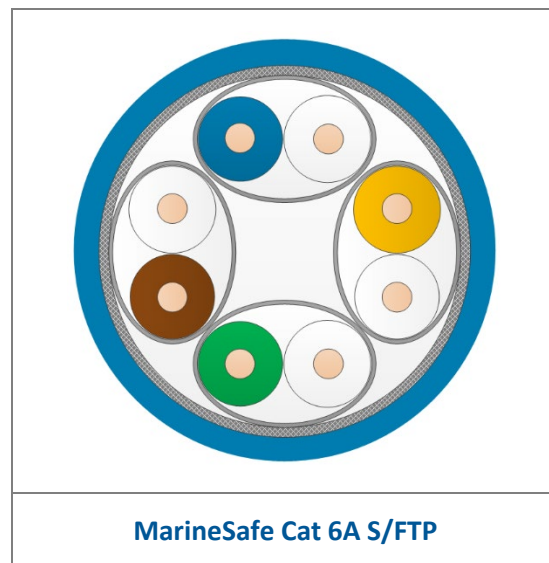


## APPLICATION

Leviton MarineSafe Category 6A S/FTP cables exceed Category 6A performance standards. They are rated to 500MHz and are suitable for use in all Class E<sub>A</sub> structured wiring cable systems. The applications supported include 10 Gigabit Ethernet, Gigabit Ethernet, Power over Ethernet, and broadband video transmissions at frequencies up to 500MHz. Leviton MarineSafe cables are third party certified to meet the requirements of Lloyd's Register Type Approval for marine and offshore environments.

## FEATURES AND BENEFITS

- 23 AWG solid annealed copper wire
- 4 twisted pairs individually shielded and cabled together providing EMI immunity
- Overall braided shield for improved shielding efficiency, increased mechanical robustness and heat dissipation
- Enhanced LSHF\* sheath
- CE and UKCA 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
- Lloyd's Register type approved



\*Low Smoke halogen free

## STANDARDS

- Designed and constructed to give optimum electrical performance to the following standards:
  - ISO/IEC 11801 Class EA, IEC 61156-5
  - EN 50173-1 and EN 50288-10-1
  - ANSI/TIA 568.2-D
- Supports 10GBASE-T
- Meets the design requirements of 802.11ac wireless
- 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

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Acid Gas Emission

IEC 60754-2

## PRIMARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Conductor Loop Resistance	Max 19 Ω/100m	14Ω/100m
Conductor Resistance Unbalance	Max 2%	0.1%
Insulation Resistance	>5GΩ.km	>50GΩ.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	100Ω +/- 5Ω @ 100MHz	100Ω ± 3Ω @ 100MHz
Coupling Attenuation	Type 1	90dB
Transfer Impedance	Grade 1	8mΩ/m @ 10MHz

## ELECTRICAL PERFORMANCE

Frequency (MHz)		1	4	10	20	100	200	250	500	550
Insertion Loss (dB/100m)	Standard	2.1	3.8	5.9	8.4	19.1	27.6	31.1	45.3	N/A
	<b>Typical</b>	<b>1.9</b>	<b>3.6</b>	<b>5.5</b>	<b>7.8</b>	<b>18.0</b>	<b>25.7</b>	<b>28.7</b>	<b>41.1</b>	<b>43.1</b>
NEXT (dB)	Standard	75.3	66.3	60.3	55.8	45.3	40.8	39.3	34.8	N/A
	<b>Typical</b>	<b>103.2</b>	<b>107.3</b>	<b>108.8</b>	<b>109.3</b>	<b>104.6</b>	<b>103.4</b>	<b>102.2</b>	<b>100.2</b>	<b>98.2</b>
PSNEXT (dB)	Standard	72.3	63.3	57.3	52.8	42.3	37.8	36.3	31.8	N/A
	<b>Typical</b>	<b>95.5</b>	<b>100.9</b>	<b>101.4</b>	<b>102.6</b>	<b>98.4</b>	<b>96.1</b>	<b>95.6</b>	<b>92.5</b>	<b>88.9</b>
ACR-F (dB)	Standard	68.0	56.0	48.0	42.0	28.0	22.0	20.0	14.0	N/A
	<b>Typical</b>	<b>102.7</b>	<b>105.4</b>	<b>103.1</b>	<b>101.8</b>	<b>87.9</b>	<b>78.2</b>	<b>75.7</b>	<b>65.2</b>	<b>62.5</b>
PSACR-F (dB)	Standard	65.0	53.0	45.0	39.0	25.0	19.0	17.0	11.0	N/A
	<b>Typical</b>	<b>93.6</b>	<b>97.3</b>	<b>96</b>	<b>94.7</b>	<b>80.4</b>	<b>70.4</b>	<b>66.9</b>	<b>51.4</b>	<b>45.8</b>
Return Loss (dB)	Standard	20.0	23.0	25.0	25.0	20.1	18.0	17.3	17.3	N/A
	<b>Typical</b>	<b>28.2</b>	<b>28.4</b>	<b>32.6</b>	<b>34.3</b>	<b>40.1</b>	<b>38.4</b>	<b>33.9</b>	<b>28.7</b>	<b>27.8</b>
PSANEXT (dB)	Standard	67.0	67.0	67.0	67.0	62.5	58.0	56.5	52.0	N/A
	<b>Typical</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
PSAACR-F (dB)	Standard	67.0	66.2	58.2	52.2	38.2	32.2	30.2	24.2	N/A
	<b>Typical</b>	<b>98.1</b>	<b>96.5</b>	<b>94.5</b>	<b>92.2</b>	<b>82.0</b>	<b>73.9</b>	<b>70.6</b>	<b>57.0</b>	<b>54.6</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 per simplex cable	Field Test NVP Value	0.80

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Segregation Class	Class D	Crush Resistance to BS EN 50289-3-5	1000N
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## STANDARD PACKAGING SPECIFICATIONS

Part Number	Color	Packaging Length (m)	Nominal Cable Dimensions (mm)	Nominal Cable Weight (kg/km)	Reel Size Flange Diameter x Width (mm)	Gross Weight (kg/Item)	Items Per Pallet
MarineSafe AC6S/FTP-500BU	Blue*	500	7.2	54.3	400 x 390	29.7	12
MarineSafe AC6S/FTP-1000BU	Blue*	1000	7.2	54.3	600x 405	60.8	4

\*Alternative colors available

## 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.