

Category 7A S/FTP EuroClass Eca Cables

Datasheet: GD102248v12



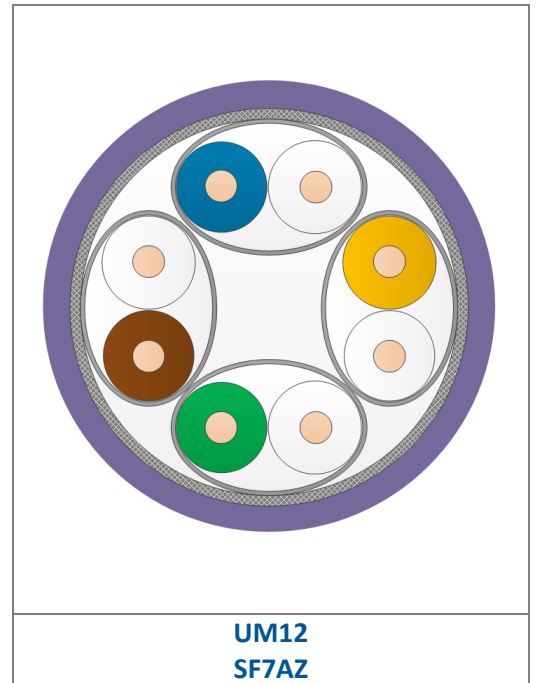
APPLICATION

Leviton Category 7A S/FTP cables exceed Category 7A performance standards. They are specified to 1000MHz and rated to 1200MHz and are suitable for use in all Class F_A structured wiring cable systems. The applications supported include 10 Gigabit Ethernet, Gigabit Ethernet, Power over Ethernet, and broadband video transmissions at frequencies up to 1000MHz.

FEATURES AND BENEFITS

- 22 AWG solid annealed copper wire
- Gas injection foamed polyolefin core insulation – offering superior signal speed
- 4 twisted pairs individually screened and cabled together – providing EMI immunity
- Overall braided screen – for improved shielding efficiency, increased mechanical robustness and heat dissipation
- Available in a range of jacket materials – to suit a variety of installation environments and color coded for identification
- HFFR-LS* versions meet the requirements of the Construction Products Regulation (CPR) EuroClass Eca
- 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

* Halogen Free Flame Retardant – Low Smoke



STANDARDS

- Designed and constructed to give optimum electrical performance to the following standards:
 - ISO/IEC 11801 Class F_A, IEC 61156-5
 - EN50173-1 and EN 50288-9-1
- Supports 10GBASE-T and meets the design requirements of 802.11ac wireless. Recommended for PoE standards:
 - IEEE 802.3bt PoE Type 1 (15.4 Watts) formerly 802.3af and IEEE 802.3bt PoE Type 2 (30 Watts) formerly 802.3at
 - IEEE 802.3bt PoE Type 3 (60 Watts) and IEEE 802.3bt PoE Type 4 (90 Watts)
 - Cisco UPoE (60 Watts), Cisco UPoE+ (90 Watts) and Power over HDBaseT™ PoH (95 Watts)

REACTION TO FIRE

Material Identifier	HF1
Material Description	Standard HFFR-LS
Flammability Rating	IEC/EN 60332-1-2
EuroClass Level EN13501-6	Eca
Color	Violet †
Calorific Value (kWh/m)	0.13

† Also available in a range of non-standard colors

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PRIMARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Conductor Loop Resistance	Max 19 Ω/100m	12Ω/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	7mΩ/m @ 10MHz

ELECTRICAL PERFORMANCE

Frequency (MHz)		1	4	10	100	250	500	600	1000	1200
Insertion Loss (dB/100m)	Standard	2.0	3.7	5.8	18.5	29.7	42.8	47.1	61.9	N/A
	Typical	1.9	3.4	5.3	16.7	26.9	38.7	42.7	56.2	62.1
NEXT (dB)	Standard	78.0	78.0	78.0	75.4	69.4	64.9	63.7	60.4	N/A
	Typical	100.0	100.0	100.0	100.0	97.2	91.8	90.4	86.4	85.0
PSNEXT (dB)	Standard	75.0	75.0	75.0	72.4	66.4	61.9	60.7	57.4	N/A
	Typical	90.0	90.0	90.0	90.0	88.0	83.5	82.3	79.0	77.8
ACR-F (dB)	Standard	78.0	78.0	78.0	65.3	57.3	51.3	49.7	45.3	N/A
	Typical	100.0	99.0	91.0	71.0	63.0	57.0	55.4	51.0	49.4
PSACR-F (dB)	Standard	75.0	75.0	75.0	62.3	54.3	48.3	46.7	42.3	N/A
	Typical	90.0	90.0	84.5	64.5	56.5	50.5	48.9	44.5	42.9
Return Loss (dB)	Standard	20.0	23.0	25.0	20.1	17.3	17.3	17.3	15.1	N/A
	Typical	30.0	33.0	36.0	35.1	32.3	31.3	30.5	28.3	27.5
PSANEXT (dB)	Standard	67.0	67.0	67.0	67.0	67.0	67.0	65.8	62.5	N/A
	Typical	98.1	96.6	94.7	83.3	70.4	53.1	47.7	30.2	22.8
PSAACR-F (dB)	Standard	67.0	67.0	67.0	53.2	45.2	39.2	37.6	33.2	N/A
	Typical	88.1	86.6	84.7	73.3	61.2	44.8	39.6	22.8	15.7

- 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 D		

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STANDARD PACKAGING SPECIFICATIONS

Part Number	Packaging Length (m)	Color	Nominal Cable Diameter (mm)	Nominal Cable Weight (kg/km)	Reel Size Flange Diameter x Width (mm)	Gross Weight (kg/Item)	Items Per Pallet
UM12-HF1-Eca-500VT	500	Violet	7.55	59.9	465 x 390	33.0	6
UM12-HF1-Eca-1000VT	1000	Violet	7.55	59.9	600 x 405	66.4	4

COUNTRY OF ORIGIN

COO: United Kingdom

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