

Category 7A S/FTP EuroClass Eca Cables

Datasheet: GD102248v7



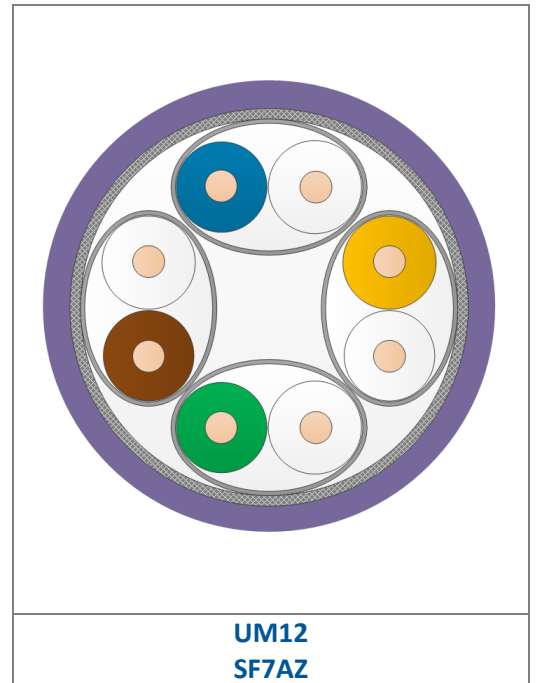
APPLICATION

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
- Meets the design requirements of 802.11ac wireless
- Recommended for PoE standards: IEEE 802.3af, 802.3at, 802.3bt, Cisco UPoE, and Power over HDBaseT™ (PoH) up to 100 watts

MATERIAL PERFORMANCE

Material Identifier	HF1	HF3
Material Description	Standard HFFR-LS	Enhanced HFFR-LS
Flammability Rating	IEC/EN 60332-1-2	IEC/EN 60332-3-24
EuroClass Level EN13501-6	Eca	Eca
Color	Violet †	Blue †
Calorific Value (kWh/m)	0.13	0.14

† 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	N/A	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
ELFEXT (dB/100m)	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
PSELFEXT (dB/100m)	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	N/A	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
ACR (dB/100m)	Typical	98.1	96.6	94.7	83.3	70.4	53.1	47.7	30.2	22.8
PSACR (dB/100m)	Typical	88.1	86.6	84.7	73.3	61.2	44.8	39.6	22.8	15.7

INSTALLATION

Temperature (Installation)	0°C to +50°C
Temperature (Operation)	-20°C to +75°C
Max Tensile Load (Installation)	10kg
Segregation Class	Class D

Min Bend Radius (Installation)	8 x Outer Diameter
Min Bend Radius (Operation)	4 x Outer Diameter
Field Test NVP Value	0.80

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PRINT LEGEND

Example print legend SF7AZ Parts:

[Length Mark]m LEVITON SF7AZ BRAND-REX UM12-HF1-Eca CAT 7A 4 PAIR 22AWG HFFR IEC 60332-1-2 EuroClass Eca NVP 0.80
MADE IN UK [ID number] [Week/Year]

Example print legend UM12 Parts:

[Length Mark]m BRAND-REX a LEVITON company UM12-HF1-Eca Cat 7A S/FTP IEC 60332-1-2 EuroClass Eca NVP 0.80 MADE IN
UK [ID number] [Week/Year]

STANDARD PACKAGING SPECIFICATIONS

Brand-Rex Part Number	Leviton 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-500WH	125-SF7AZ-5WS	500	White	7.55	59.9	465 x 390	33.0	6
UM12-HF1-Eca-500OR	128-SF7AZ-5OS	500	Orange	7.55	59.9	465 x 390	33.0	6
UM12-HF1-Eca-500BU	129-SF7AZ-5LS	500	Blue	7.55	59.9	465 x 390	33.0	6
UM12-HF1-Eca-500VT	126-SF7AZ-5VS	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
UM12-HF3-Eca-500BU*	-	500	Blue	7.75	64.6	465 x 390	35.3	6
UM12-HF3-Eca-1000BU*	-	1000	Blue	7.75	64.6	600 x 405	71.1	4

* Only available in Europe and Middle East regions

*“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.