

Category 6A F/FTP EuroClass Eca Cables

Datasheet: GD102423v9



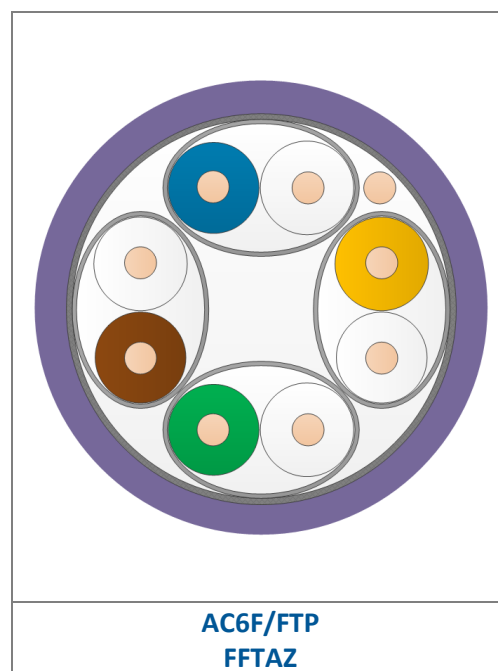
APPLICATION

Leviton Category 6A F/FTP cables exceed Category 6A performance standards. They are rated to 500MHz and are suitable for use in all Class E_A structured wiring cable systems. The applications supported include 10 Gigabit Ethernet, Gigabit Ethernet, Power over Ethernet, and broadband video transmissions at frequencies as high as 500MHz.

FEATURES AND BENEFITS

- 23 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 aluminum polyester screen – for improved shielding efficiency and increased 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 E_A, IEC 61156-5
 - EN 50173-1 and EN 50288-10-1
 - ANSI/TIA 568.2-D
- 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	HF3
Material Description	Standard HFFR-LS	Enhanced HFFR-LS
Flammability Rating	IEC 60332-1-2	IEC 60332-3-24
Fire EuroClass EN13501-6	Eca	Eca
Smoke Emission	IEC 61034-1 & 2	IEC 61034-1 & 2
Acid Gas Emission	IEC 60754-2	IEC 60754-2
Color	Violet	Blue

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PRIMARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Conductor Loop Resistance	Max 19 Ω /100m	14 Ω /100m
Conductor Resistance Unbalance	Max 2%	0.1%
Insulation Resistance	>5G Ω .km	>50G Ω .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 Ω +/- 5 Ω @ 100MHz	100 Ω \pm 3 Ω @ 100MHz
Coupling Attenuation	Type 1b	84dB
Transfer Impedance	Grade 2	11m Ω /m @ 10MHz

ELECTRICAL PERFORMANCE

Frequency (MHz)		1	4	10	20	100	200	250	500	550
Insertion Loss (dB/100m)	Standard (Max)	N/A	3.8	5.9	8.4	19.1	27.6	31.1	45.3	N/A
	Typical	1.9	3.5	5.5	7.8	18.0	26.1	29.4	43.0	45.4
NEXT (dB)	Standard (Min)	N/A	66.3	60.3	55.8	45.3	40.8	39.3	34.8	N/A
	Typical	100.0	100.0	100.0	100.0	94.3	88.9	87.1	81.7	81.0
PSNEXT (dB)	Standard (Min)	N/A	63.3	57.3	52.8	42.3	37.8	36.3	31.8	N/A
	Typical	97.0	97.0	97.0	97.0	91.3	85.9	84.1	78.7	78.0
ACR-F (dB)	Standard (Min)	N/A	56.0	48.0	42.0	28.0	22.0	20.0	14.0	N/A
	Typical	90.0	90.0	90.0	84.8	70.8	64.8	62.8	56.8	56.0
PSACR-F (dB)	Standard (Min)	N/A	53.0	45.0	39.0	25.0	19.0	17.0	11.0	N/A
	Typical	87.0	87.0	87.0	81.8	67.8	61.8	59.8	53.8	53.0
Return Loss (dB)	Standard (Min)	20.0	23.0	25.0	25.0	20.1	18.0	17.3	17.3	N/A
	Typical	27.0	30.0	30.0	30.0	25.1	23.0	22.3	20.2	19.9
PSANEXT (dB)	Standard (Min)	67.0	67.0	67.0	67.0	62.5	58.0	56.5	52.0	N/A
	Typical	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PSAACR-F (dB)	Standard (Min)	67.0	66.2	58.2	52.2	38.2	32.2	30.2	24.2	N/A
	Typical	98.1	96.5	94.5	92.2	82.0	73.9	70.6	57.0	54.6

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INSTALLATION

Temperature (Installation)	0°C to +50°C
Temperature (Operation)	-20°C to +75°C
Max Tensile Load (Installation)	10kg per simplex cable
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

STANDARD PACKAGING SPECIFICATIONS - REELS

Part Number	Alternative** 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
AC6F/FTP-HF1-Eca-500GY*	121-FFTAZ-5SS*	500	Gray	7.1	49.7	400 x 390	27.4	12
AC6F/FTP-HF1-Eca-500VT†	-	500	Violet	7.1	49.7	400 x 390	27.4	12
AC6F/FTP-HF1-Eca-1000VT†	-	1000	Violet	7.1	49.7	600 x 405	56.2	4
AC6F/FTP-HF1-Eca-D500VT‡§	-	500	Violet	7.1 x 14.3	99.5	600 x 405	56.2	4
AC6F/FTP-HF3-Eca-500BU†	-	500	Blue	7.5	57.9	465 x 390	31.9	6
AC6F/FTP-HF3-Eca-1000BU†	-	1000	Blue	7.5	57.9	600 x 405	64.4	4

* Only available in Middle East region

** May be ordered using alternative part number in some regions

† Only available in Europe and Middle East regions

§ 'D' denotes Duplex Cable

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.