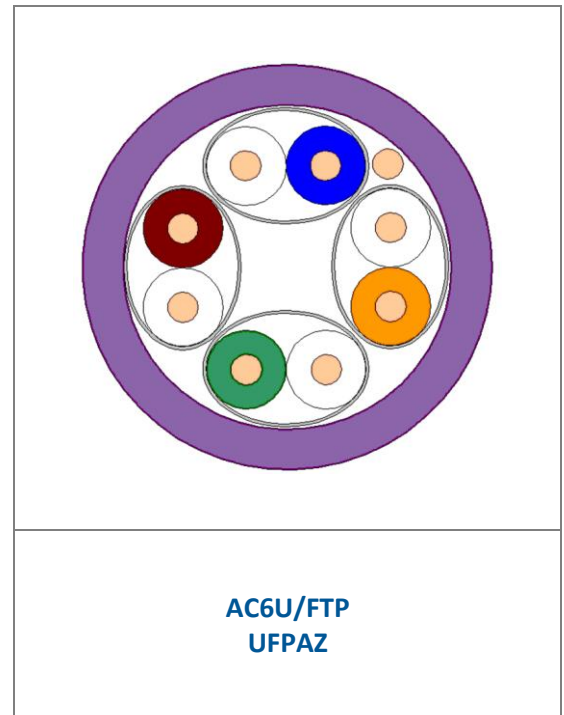


APPLICATION

The Brand-Rex AC6U/FTP and Leviton UFPAZ cables exceed the Category 6A performance standards. They are specified to 500MHz and are suitable for use in all Class EA structured wiring cable systems. The applications supported include 10 Gigabit Ethernet, Gigabit Ethernet, PoE, voice and broadband video transmissions.

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
- Available in a Range of Sheath Materials – to suit a variety of installation environments and colour coded for identification
- Designed to Support all Class EA protocols including 10GBASE-T
- Supports Power Over Ethernet (PoE) and Power Over Ethernet Plus (PoE+) Applications
- HFFR-LS versions meet the requirements of the Construction Products Regulation (CPR) Euroclass Eca
- Included in the Leviton and Brand-Rex 25 Year System Warranties when used in conjunction with Leviton or Brand-Rex copper connectivity. System warranties available for qualified projects installed by certified contractors



STANDARDS

Applicable Cable Standards: ANSI/TIA-568-C.2 Cat 6A , IEC 61156-5 and EN 50288-10-1

MATERIAL IDENTIFICATION

Material Identifier	HF1	HF3	HF1-X
Material Description	Standard HFFR-LS*	Enhanced HFFR-LS	Inner - HFFR-LS Outer - Polyethylene
Flammability Rating	IEC 60332-1-2	IEC 60332-3-24	n/a – External Only
Fire Euroclass EN13501-6	Eca	Eca	n/a – External Only
Smoke Emission	IEC 61034-1 & 2	IEC 61034-1 & 2	n/a – External Only
Acid Gas Emission	IEC 60754-2	IEC 60754-2	n/a – External Only

* Halogen Free Flame Retardant – Low Smoke

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 25nsec/100m @ 100MHz	4nsec/100m @ 100MHz
Mean Characteristic Impedance	100Ω +/- 5Ω @ 100MHz	100Ω ± 3Ω @ 100MHz
Coupling Attenuation	Type 1b	75dB
Transfer Impedance	Grade 2	28mΩ/m @ 10MHz

ELECTRICAL PERFORMANCE

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

INSTALLATION

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

PRINT LEGEND

Example print legend Leviton Parts:

[Length Mark]m LEVITON UFPАЗ BRAND-REX AC6U/FTP-HF1-Eca Cat 6A 4 PAIR 23AWG HFFR IEC 60332-1-2 Euroclass Eca NVP 0.80 MADE IN UK [ID number] [Week/Year]

Example print legend Brand-Rex Parts:

[Length Mark]m BRAND-REX a LEVITON company AC6U/FTP-HF1-Eca-D Cat 6A U/FTP IEC 60332-1-2 Euroclass Eca NVP 0.80 MADE IN UK [ID number] [Week/Year]

STANDARD PACKAGING SPECIFICATIONS - REELS

Brand-Rex Part Number	Leviton Part Number	Packaging Length (m)	Colour	Nominal Cable Diameter (mm)	Nominal Cable Weight (kg/km)	Reel Size Flange Diameter x Width (mm)	Gross Weight (kg/Item)	Items Per Pallet
AC6U/FTP-HF1-Eca-500WH	UFPАЗ-5WS	500	White	6.8	45.0	400 x 390	25	12
AC6U/FTP-HF1-Eca-500VT	UFPАЗ-5VS	500	Violet	6.8	45.0	400 x 390	25	12
AC6U/FTP-HF1-Eca-1000VT	-	1000	Violet	6.8	45.0	600 x 405	51.5	4
AC6U/FTP-HF1-Eca-D500VT [†]	-	500	Violet	6.8 x 13.7	90.0	600 x 405	51.5	4
AC6U/FTP-HF1-Eca-D1000VT [†]	-	1000	Violet	6.8 x 13.7	90.0	750 x 405	99.0	2
AC6U/FTP-HF3-Eca-500BU	-	500	Blue	7.2	52.9	400 x 390	28.9	12
AC6U/FTP-HF3-Eca-1000BU	-	1000	Blue	7.2	52.9	600 x 405	59.4	4

[†]'D' denotes duplex cable

STANDARD PACKAGING SPECIFICATIONS - BOXES

Brand-Rex Part Number	Leviton Part Number	Packaging Length (m)	Colour	Nominal Cable Diameter (mm)	Nominal Cable Weight (kg/km)	Box Size L x W x H (mm)	Gross Weight (kg/Item)	Items Per Pallet
AC6U/FTP-HF1-Eca-Rlx-305VT	-	305	Violet	6.8	45.0	405 x 265 x 405	14.7	27 or 18

"Brand-Rex 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. Brand-Rex reserves the right to modify details without notice in light of subsequent standard/specification changes and ongoing technical developments.