

Category 6_A U/FTP EuroClass D_{ca} Cables

Datasheet: GD103438v4

Brand-Rex | a **LEVITON**
company

APPLICATION

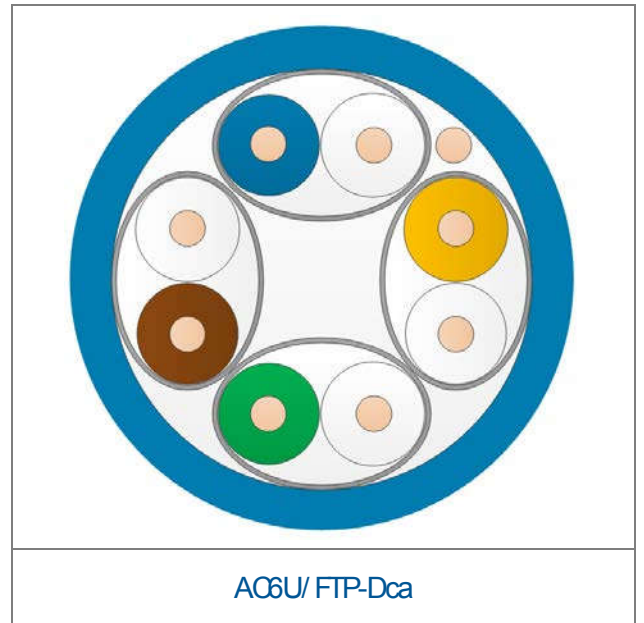
Brand-Rex 10GPlus AC6U/FTP cables exceed the Category 6_A performance standards. They are specified to 500MHz and are suitable for use in all Class E_A structured wiring cable systems. 10GPlus AC6U/FTP cable supports 10 Gigabit Ethernet, Gigabit Ethernet, Power over Ethernet, voice and broadband video transmissions at frequencies up to 500MHz.

FEATURES AND BENEFITS

- 23 AWG solid annealed copper wire
- 4 twisted pairs individually screened and cabled together – providing EMI immunity
- Designed to support all Class E_A protocols including 10GBASE-T
- Supports Power over Ethernet (PoE & PoE+) applications
- HFFR-LS* material enables the cable to meet the requirements of the Construction Products Regulation (CPR) EuroClass D_{ca}
- Blue† coloured jacket to identify EuroClass level D_{ca}
- 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

* Halogen Free Flame Retardant – Low Smoke

† Also available in a range of non-standard colours



STANDARDS

Applicable Cable Standards: ISO/IEC 11801 Class E_A, IEC 61156-5 and EN 50288-10-1

REACTION TO FIRE

CHARACTERISTIC	STANDARD	RATING	DUPLEX RATING
Single Cable Flame Rating	IEC/EN 60332-1-2	Pass	Pass
Acid Gas Emission / Acidity	EN 50267-2-3	Pass	Pass
Classification	EN 13501-6	D _{ca} s2 d1 a1	D _{ca} s2 d2 a1

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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

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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
Segregation Class	Class C		

PRINT LEGEND

Example print legend:

[Length Mark]m BRAND-REX a LEVITON company AC6U/ FTP-Dca Cat 6A U/ FTP EN 50399 EuroClass Dca s2 d1 a1 NVP 0.80
MADE IN UK [ID number] [Week/ Year]

STANDARD PACKAGING SPECIFICATIONS - REELS

Brand-Rex Part Number	Packaging Length (m)	Colour	Nominal Cable Dimension (mm)	Nominal Cable Weight (kg/km)	Reel Size Flange x Width (mm)	Gross Weight (kg/Item)	Items Per Pallet
AC6U/ FTP-Dca-500BU	500	Blue†	6.8	45.2	400 x 390	25.1	12
AC6U/ FTP-Dca-1000BU	1000	Blue†	6.8	45.2	600 x 325	51.2	6
AC6U/ FTP-Dca-D500BU ††	500	Blue†	6.8 x 13.8	90.6	600 x 325	51.7	6

STANDARD PACKAGING SPECIFICATIONS - BOXES

Brand-Rex 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-Dca-Rlx-305BU	305	Blue†	6.8	45.2	475 x 295 x 475	14.8	12

† Also available in a range of non-standard colours

†† Duplex Cable

“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.