Category 6$_A$ F/FTP EuroClass D$_{ca}$ Cables

Datasheet: GD103611v3

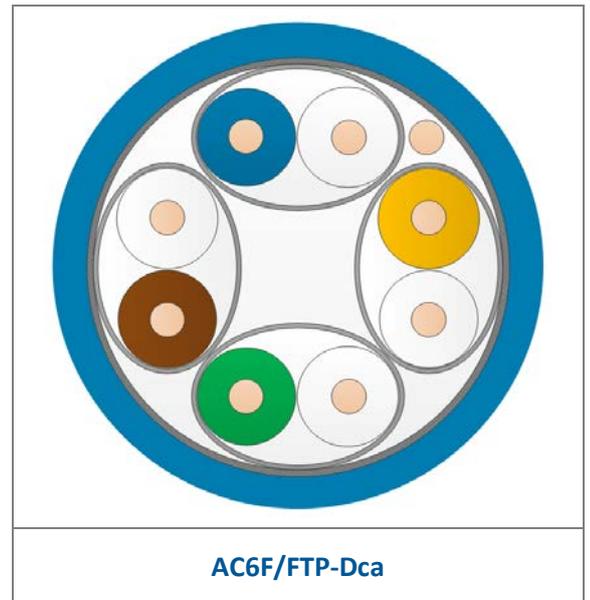**Brand-Rex** | a **LEVITON** company

APPLICATION

Brand-Rex 10GPlus cables exceed the Category 6$_A$ 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 up to 500MHz.

FEATURES AND BENEFITS

- 23 AWG solid annealed copper wire
- 4 twisted pairs individually screened and cabled together – providing EMI immunity
- Overall aluminium polyester screen – for improved shielding efficiency and increased heat dissipation
- Designed to support all class E$_A$ protocols including 10GBASE-T
- Supports Power over Ethernet (PoE) and Power over Ethernet Plus (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

AC6F/FTP-Dca

STANDARDS

Applicable Cable Standards: IEC 61156-5 and EN50288-10-1

REACTION TO FIRE

CHARACTERISTIC	STANDARD	RATING	DUPLEX RATING
Single Cable Flame Rating	IEC 60332-1-2	Pass	Pass
Smoke Production	EN 61034	n/a	Pass
Acid Gas Emission / Acidity	EN 50267-2-3	Pass	Pass
Classification	EN 13501-6	D$_{ca}$ s1 d2 a1	D$_{ca}$ s1a d1 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 45nsec/100m @ 100MHz	4nsec/100m @ 100MHz
Mean Characteristic Impedance	100Ω +/- 5Ω @ 100MHz	100Ω ± 3Ω @ 100MHz
Coupling Attenuation	Type 1b	84dB
Transfer Impedance	Grade 2	11mΩ/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 *(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 D		

PRINT LEGEND

Example print legend:

[Length Mark]m BRAND-REX a LEVITON company AC6F/FTP-Dca Cat 6A F/FTP EN 50399 EuroClass Dca s1 d2 a1 NVP 0.80 MADE IN UK [ID number] [Week/Year]

STANDARD PACKAGING SPECIFICATIONS

Brand-Rex Part Number	Packaging **Length** (m)	Colour	Nominal **Cable Dimension** *(mm)*	Nominal **Cable Weight** *(kg/km)*	**Reel Size** *Flange Diameter x Width (mm)*	Gross **Weight** *(kg/Item)*	Items **Per Pallet**
AC6F/FTP-Dca-500BU	500	Blue†	7.1	50.4	465 x 390	27.7	12
AC6F/FTP-Dca-1000BU	1000	Blue†	7.1	50.4	600 x 325	56.4	6
AC6F/FTP-Dca-D500BU††	500	Blue†	7.1 x 14.4	100.9	600 x 325	56.9	6

†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.