Category 5e F/UTP Euroclass D_{ca} Cables

Datasheet: GD103437v3

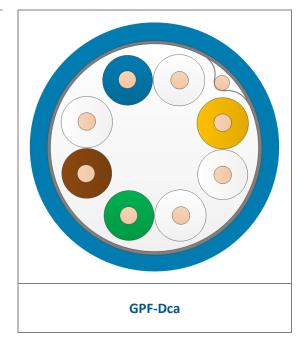


APPLICATION

The Brand-Rex GigaPlus GPF cables exceed the Category 5e performance standards. They are rated to 100MHz and are suitable for use in all Class D structured wiring cable systems. The GigaPlus GPF cable supports Gigabit Ethernet, PoE and voice transmissions at frequencies up to 100MHz.

FEATURES AND BENEFITS

- 24 AWG Solid Annealed Copper Wire
- 4 Unshielded Twisted Pairs Cabled Together
- Aluminium Polyester screen
- Designed to Support all Class D protocols including Gigabit Ethernet
- Supports Power Over Ethernet (PoE / PoE+) Applications
- HFFR-LS* jacket material meets the requirements of the Construction Products Regulation (CPR) Euroclass Dca
- Blue+ Coloured Jacket to identify Euroclassification level Dca
- 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: IEC 61156-5 and EN 50288-2-1

REACTION TO FIRE

CHARACTERISTIC	STANDARD	RATING		
Single Cable Flame Rating	IEC 60332-1-2	Pass		
Bundled Cable Flame Rating	EN 50399 20.5kW source	D _{ca}		
Smoke Production	EN 50399	s2		
Flaming Droplets / Particles	EN 50399	d1		
Acid Gas Emission / Acidity	EN 50267-2-3	a1		
Euroclassification	EN 13501-6	D _{ca} s2 d1 a1		

^{*} Halogen Free Flame Retardant – Low Smoke

[†] Also available in a range of non-standard colours

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PRIMARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C		
Conductor Loop Resistance	Max 19Ω/100m	16Ω/100m		
Conductor Resistance Unbalance	Max 2%	0.1% >310GΩ.km		
Insulation Resistance	>5GΩ.km			
Dielectric Strength	2500 Vdc/2secs	Pass		

SECONDARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C 480nsec/100m @ 100MHz 11nsec/100m @100MHz 100Ω +/- 3Ω @ 100MHz		
Propagation Delay	<534nsec/100m @ 100MHz			
Delay Skew	Max 45nsec/100m @100MHz			
Mean Characteristic Impedance	100Ω +/- 5Ω @ 100MHz			
Transfer Impedance	Grade 2	14mΩ/m @ 10MHz		

ELECTRICAL PERFORMANCE

Frequency (MHz)		1	4	10	16	20	31.25	100	200	250
Insertion Loss (dB/100m)	Standard	2.1	4.0	6.3	8.0	9.0	11.4	21.4	na	na
	Typical	2.0	3.8	6.0	7.6	8.6	10.8	20.4	30.3	34.5
21777 (17)	Standard	65.3	56.3	50.3	47.2	45.8	42.9	35.3	na	na
NEXT (dB)	Typical	73.3	64.3	58.3	55.2	53.8	50.9	43.3	38.8	37.3
DCNEVT (AD)	Standard	62.3	53.3	47.3	44.2	42.8	39.9	32.3	na	na
PSNEXT (dB)	Typical	70.3	61.3	55.3	52.2	50.8	47.9	40.3	35.8	34.3
ELFEXT	Standard	63.8	51.8	43.8	39.7	37.8	33.9	23.8	na	na
(dB/100m)	Typical	78.8	66.8	58.8	54.7	52.8	48.9	38.8	32.8	30.8
PSELFEXT	Standard	60.8	48.8	40.8	36.7	34.8	30.9	20.8	na	na
(dB/100m)	Typical	76.8	64.8	56.8	52.7	50.8	46.9	36.8	30.8	28.8
Return loss (dB)	Standard	na	23.0	25.0	25.0	25.0	23.6	20.1	na	na
	Typical	25.0	28.0	30.0	30.0	30.0	28.6	25.1	23.0	22.3
ACR (dB/100m)	Typical	71.3	60.5	52.3	47.6	45.2	40.0	22.9	8.5	2.9
PSACR (dB/100m)	Typical	68.3	57.5	49.3	44.6	42.2	37.0	19.9	5.5	-0.1

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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	0.68
Segregation Class	Class C		

PRINT LEGEND

Example print legend:

[Length Mark]m BRAND-REX a LEVITON company GPF-Dca Cat 5e F/UTP EN 50399 Euroclass Dca s2 d1 a1 NVP 0.68 MADE IN UK [ID number] [Week/Year]

STANDARD PACKAGING SPECIFICATIONS

Brand-Rex Part Number	Packaging Length (m)	Colour	Nominal Cable Diameter (mm)	Nominal Cable Weight (kg/km)	Reel Size Flange x Width (mm)	Gross Weight (kg/Item)	Items Per Pallet
GPF-Dca-500BU	500	Blue†	6.1	40.0	400 x 315	22.0	18
GPF-Dca-1000BU	1000	Blue+	6.1	40.0	465 x 390	43.1	6

†Also available in a range of non-standard colours

"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.