

# Category 6<sub>A</sub> UTP EuroClass B2<sub>ca</sub> Cables

Datasheet: GD103840v6

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

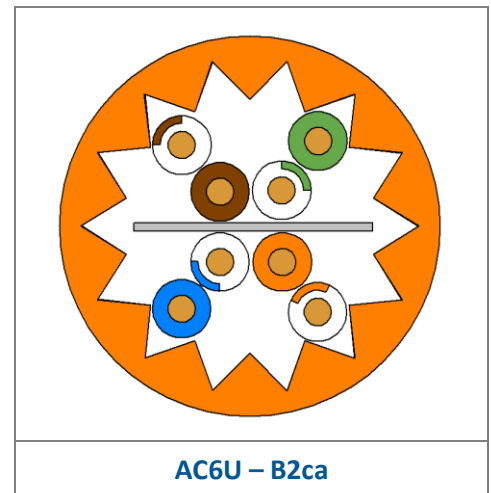
## APPLICATION

Brand-Rex AC6U cables exceed the Category 6<sub>A</sub> performance standards. They are rated to 500MHz and are suitable for use in all Class EA structured wiring cable systems.

The UTP cable construction combines superior levels of pair balance with an innovative jacket profile specially designed to reduce alien crosstalk. AC6U cables support 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 unshielded twisted pairs cabled together
- Central separator for excellent internal crosstalk performance
- Available in CPR fire performance ratings Cca and B2ca and colour coded for identification
- 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

- Designed and constructed to give optimal electrical performance to the following standards:
  - ISO/IEC 11801 Class EA, IEC 61156-5
  - EN 50173-1 and EN 50288-11-1
  - ANSI/TIA 568C.2
- Supports 10GBASE-T
- Meets the design requirements of 802.11ac wireless
- Recommended for PoE standards: IEEE 802.3af, 802.3at, Cisco UPoE, and Power over HDBaseT™ (PoH) up to 100 watts, as well as emerging 4 pair PoE standards such as the IEEE 802.3bt, including 90 watts at the powered device (PD)

## FIRE CLASSIFICATION

CHARACTERISTIC	IEC STANDARD	EN STANDARD	CPR RATING
Reaction to Fire Classification / EuroClass	-	EN 13501-6	B2ca s1a d1 a1
Single Cable Flame Rating	IEC 60332-1-2	EN 60332-1-2	Pass
Smoke Emission	IEC 61034	EN 61034	Pass
Acid Gas Emission	IEC 60754	EN 60754	Pass

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## PRIMARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION
Conductor Loop Resistance	Max 19 $\Omega$ / 100m
Conductor Resistance Unbalance	Max 2%
Insulation Resistance	>5G $\Omega$ .km
Dielectric Strength	1000 Vdc/ 1 min

## SECONDARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION
Velocity of Propagation	<538nsec/100m @ 100MHz
Delay Skew	Max 45nsec/100m @ 100MHz
Characteristic Impedance (fitted)	100 $\Omega$ +/- 15 $\Omega$

## ELECTRICAL PERFORMANCE

Frequency (MHz)	1	4	10	20	100	200	250	500
Insertion Loss (dB/100m)	2.1	3.8	5.9	8.4	19.1	27.6	31.1	45.3
NEXT (dB)	74.3	65.3	59.3	54.8	44.3	39.8	38.3	33.8
PSNEXT (dB)	72.3	63.3	57.3	52.8	42.3	37.8	36.3	31.8
ACR-F (dB) min.	67.8	55.8	47.8	41.8	27.8	21.8	19.8	13.8
PS ACR-F (dB/100m) min.	64.8	52.8	44.8	38.8	24.8	18.8	16.8	10.8
Return Loss (dB)	20.0	23.0	25.0	25.0	20.1	18.0	17.3	15.2
PSANEXT (dB) min.	67.0	67.0	67.0	67.0	62.5	58.0	56.5	52.0
PSAACR-F (dB) min.	67.0	66.2	58.2	52.2	38.2	32.2	30.2	24.2

## INSTALLATION

Temperature (Installation)	0°C to +50°C	Min Bend Radius (Installation)	8 x Outer Diameter
Temperature (Operation)	-20°C to +60°C	Min Bend Radius (Operation)	4 x Outer Diameter
Segregation Class	Class C	Field Test NVP Value	0.67

## PRINT LEGEND

Example print legend:

[Length Mark]m BRAND-REX a LEVITON company Cat 6A U/UTP EN 50399 EuroClass B2ca s1a d1 a1 NVP 0.67  
[Factory ID] [ID number] [Week/Year]

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## STANDARD PACKAGING SPECIFICATIONS - REELS

Brand-Rex Part Number	Packaging Length (m)	Colour	Nominal Diameter (mm)	Nominal Weight (kg/km)	Reel Size Flange Dia x Width (mm)	Gross Weight (kg/Item)	Items Per Pallet
AC6U-B2ca-500OR1	500	Orange†	7.9	65	400 x 410	35.3	12

† Also available in a range of non-standard colours

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*“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.