

## Product Information

Cat.6A cable, U/UTP, BKT 505 Z1, LSHF-FR, solid wire, blue, B2ca -s1a,d1,a1

Card No.: PI\_10157C455\_01.22



B2ca  
CPR

## Application

Primary (Campus), Secondary (Riser), Tertiary (Horizontal)  
IEEE 802.3: 10BASE-T, 100BASE-T, 1000BASE-T, 2.5GBASE-T, 5GBASE-T, 10GBASE-T  
IEEE 802.5: 16MB, ISDN, FDDI, ATM  
Power over Ethernet (PoE) Type 1÷4

## Standards

- EN 50173-1
- EN 50288-11-1
- EN 50399
- EN50575
- ISO/IEC 11801-1
- IEC 61156-5
- ANSI/TIA 568.2
- IEEE 802.3af/at/bt

## Flame Resistance

LSHF-FR (LSOH-FR, FRNC-C): IEC 60332-1, IEC 61034, IEC 60754-2, IEC 60754-2

CPR: Class B2ca -s1a,d1,a1 EN 50399, EN 50575

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## Construction

<b>Conductor</b>	Bare copper wire $\varnothing$ 0,57 mm (AWG23)
<b>Insulation</b>	Polyethylene $\varnothing$ 1,18 mm
<b>Twisting</b>	2 cores to the pair
<b>Cable lay up</b>	4 pairs to the core separated with non metallic cross separator (spline)
<b>Screen</b>	10G - Al-laminated foil with uninterrupted continuity of the screen
<b>Sheath</b>	LSHF-FR (LSOH-FR, FRNC-C) blue RAL 5024

## Mechanical Properties

Bending radius	installation	4 x D
	installed	8 x D
Temperature range	during operation	-20°C to +60°C
	during installation	0°C to +50°C

## Electrical Properties

at 20°C

DC Loop Resistance		$\leq 158 \Omega/\text{km}$
Resistance unbalance		$\leq 2 \%$
Insulation resistance	[500 V]	$\geq 2000 \text{ M}\Omega\text{km}$
Mutual capacitance	[800 Hz]	nom. 43 nF/km
Capacitance unbalance	[pair/ground]	$\leq 1500 \text{ pF}/\text{km}$
Nominal Velocity of Propagation	NVP	66 %
Propagation Delay		$\leq 427 \text{ ns}/100\text{m}$
Delay Skew		$\leq 12 \text{ ns}/100\text{m}$
Test Voltage	[DC, 1min]	1000 V
Coupling attenuation		$\geq 40 \text{ dB}$
Separation classification according to EN 50174-2		„C”

## Useful Properties

Fire Load	775 MJ/km	0,215 kWh/m
Tensile force	100 N	

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**Transmission Characteristics**

 to cat. 6<sub>A</sub> at 20°C

Frequency (MHz)	Attenuation (dB/100m)	RL (dB)	NEXT (dB)	PS NEXT (dB)	ACR-F (dB/100m)	PS ACR-F (dB/100m)
1	2,1	20,0	75,3	72,3	68,0	65,0
4	3,8	23,0	66,3	63,3	56,0	53,0
10	5,9	25,0	60,3	57,3	47,0	45,0
16	7,5	25,0	57,2	54,2	43,9	40,9
20	8,4	25,0	55,8	52,8	42,0	39,0
31,2	10,5	24,0	52,9	59,9	38,1	35,1
62,5	15,0	22,0	48,4	45,4	32,1	29,1
100	19,1	20,0	45,3	42,3	28,0	25,0
125	21,5	19,0	43,8	40,8	26,1	23,1
155,5	24,1	19,0	42,4	39,4	24,2	21,2
175	25,7	18,0	41,7	38,7	23,1	20,1
200	27,6	18,0	40,8	37,8	22,0	19,0
250	31,1	17,3	39,3	36,3	20,0	17,0
500	45,3	17,3	34,8	31,8	14,0	11,0

**Technical Data**

Product code	Cable type	Product name	Declaration of Performance (DoP)	Outer diameter (mm)	Weight (kg/km)
10157C455.500	J-2YH 4x2x0.57	Cat.6A cable, U/UTP, BKT 505 Z1, LSHF-FR, solid wire, blue, B2ca -s1a,d1,a1 (500m), resistant to AXT	11324375	7,8	64