U/UTP-DF CAT6A-4P-LSZH
D-INSTAKAB6AC-305
Art.nr. 502-000

U/UTP 4 Pairs cable

Short Description

High-performance Category 6A U/UTP installation cable with solid copper conductors, designed for 10 Gigabit Ethernet and high-bandwidth data applications. The cable features an LSZH (Low Smoke Zero Halogen) jacket and Cca fire classification, ensuring both optimal performance and enhanced fire safety for modern structured cabling systems. Supplied in a 305 m pull-out box for easy installation.

Properties

- **Category:** CAT6A U/UTP
- **Conductor:** Solid bare copper, AWG23
- **Construction:** 4 unshielded twisted pairs
- **Insulation:** Polyolefin
- **Jacket Material:** LSZH (Low Smoke Zero Halogen)
- **Color:** White
- **Fire Class:** Cca – suitable for fixed installation in buildings with high fire safety requirements
- **Length:** 305 m (supplied in pull-out box)
- **Bandwidth:** 500 MHz
- **Standards Compliance:** ISO/IEC 11801 Class EA, EN 50173-1, ANSI/TIA-568.2-D
- **Performance:** Supports 10GBASE-T Ethernet, PoE, PoE+
- **Packaging:** Pull box for smooth and efficient installation

Mechanical specifications

- **Conductor Diameter:** 0.57 mm (AWG23)
- **Cable Diameter:** ±6.5 mm
- **Weight:** ±9.0 kg per 305 m
- **Operating Temperature:** -20°C to +60°C
- **Installation Temperature:** 0°C to +50°C
- **Minimum Bending Radius:** 8 × cable diameter
- **Installation Type:** Fixed installation, indoor use
- **Pulling Tension:** ≤ 110 N
- **Jacket Type:** LSZH – halogen-free, low smoke, flame retardant

Variations

- **502-001 D-INSTAKAB6AC-500**
  CAT6A U/UTP Cca LSZH AWG23, solid copper White, spool 500m

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Spécifications

Sheath Printing	TBD		
Customer No.		Customer Reference	
Category	U/UTP-DF CAT 6A-4P-LSZH (B2ca-s1a,d,a1)		
Reference Standard	ISO/IEC11801 , ANSI/TIA-568.2-D		

Conductor	Material	Solid-Bare Copper		
	Nom.O.D. (mm)	0.550	up	+0.005
			down	-0.005

Insulation 1	Material	PE
	Diameter	1.08± 0.08mm
Insulation 2	Material	PE
	Diameter	1.16±0.08 mm
Filling	Plastic Separator: FRPE	
Wrapping	Polyester Tape + Isolation Wrap	

Sheath	Thickness	0.60± 0.05 mm
	External O.D.	7.4± 0.5 mm
	Surface	Clean, Frap, Satiation
	Material	FR-LSZH (complies RoHS)
	Color	TBD

Surface Printing	Letter height	3.0± 0.3mm
	Color	Black
	Print error & Space	≤± 0.5%, 1m

Core Color	1 White-Blue /Blue	2 White-Orange /Orange
	3 White-Green /Green	4 White-Brown /Brown

Packing	Drum
Carton dimension	--
Packing length	305± 1.5m

Ripcord	Yes	Drain wire	No

Sheath Physical Properties	Before Aging Tensile Strength(Mpa) ≥ 9.0 Elongation (%) ≥ 100
	Aging Period(°C× hrs) 100 × 24h× 7d
	After Aging Tensile Strength(Mpa) ≥ 8.0 Elongation (%) ≥ 70
	Cold bend(-20±2*C×4h) 8×Cable O.D., No visible cracks

Electrical Characteristics (20°C)	Impedance(Ω) 1.0-250.0MHz 100± 15 250.0-500.0MHz 100± 22
	1.0-500.0MHz Delay Skew (ns/100m) ≤ 45
	DC Resistance (Ω/100m) max 9.38
	DC Conductor Resistance Unbalance(%) max 5.0

Reaction to fire Classification ：B2ca,s1a,d1,a1

White-Blue /Blue
Separator
White-Orange /Orange
Sheath
Polyester Tape
Isolation Wrap
Ripcord
White-Brown /Brown
White-Green /Green

Technical Performance (100m):

Frequency	RL	ATT(20°C)	NEXT	PHASE DELAY
(MHz)	≥dB	≤dB	≥dB	≤ns
1	20.0	2.03	74.3	570.00
4.0	23.0	3.78	65.3	552.00
8.0	24.5	5.32	60.8	546.73
10.0	25.0	5.95	59.3	545.38
16.0	25.0	7.55	56.2	543.00
20.0	25.0	8.47	54.8	542.05
25.0	24.3	9.51	53.3	541.20
31.25	23.6	10.67	51.9	540.44
62.5	21.5	15.38	47.7	538.55
100	20.1	19.80	44.3	537.60
200	18.0	28.98	39.8	536.54
250	17.3	32.85	38.3	536.27

Frequency	PSNEXT	ELFEXT	PSELFEXT
(MHz)	≥dB	≥dB	≥dB
1	72.3	67.8	64.8
4	63.3	55.8	52.8
8	58.8	49.7	46.7
10	57.3	47.8	44.8
16	54.2	43.7	40.7
20	52.8	41.8	38.8
25	51.3	39.8	36.8
31.25	49.9	37.9	34.9
62.5	45.4	31.9	28.9
100	42.3	27.8	24.8
200	37.8	21.8	18.8
250	36.3	19.8	16.8