



Cat.6A SF/UTP AWG23/1

LAN cable with 4 pairs,
category 6A , with cable core screen
and screen braiding



Standards: ISO/IEC 11801, IEC 61156-5
EN 50173-1, EN 50288-11-1; EIA/TIA 568-B



Ambient installation T°
C range
0 + 50 °C



Operating temp.
-20 + 60 °C



Storage temperature
range
-20 + 70 °C



Flame retardant
IEC 60332-1



Smoke density

Application

Cat. 6A SF/UTP cables with 4 twisted pairs, 100 ohms very high speed, for horizontal floor or backbone distribution. This cables enable the use of protocols supported by Class EA for 10G Base-T applications. It is characterised up to 500 MHz 802.3 bt PoE++ up to type 4 applications compatible according to installation standards ISO/IEC 14763-2 : 2019 and EN 50174-2 : 2018

Category 6A SF/UTP cables are specifically designed to deliver robust standards based performance ensuring optimum bandwidth for today's high speed network applications. The cable is designed to support horizontal networking applications over distances up to 100 meters. Each Category 6A SF/UTP exceed the minimum specified performance for Category 6A SF/UTP cables and support all CLASS EA applications. Conform to IEC, EIA-TIA performance requirements ,23AWG premium grade copper conductor and cable structure with cross separator inside for better cable performance. The cable is future-proof for all applications according to Class C, D, E and EA and suitable for the operation of PoE and

PoE+over a channel length of up to 100m. It is suitable for the following applications: Telephony, Ethernet, Fast Ethernet, Gigabit Ethernet and 10Gigabit Ethernet, 10BaseT, 100BaseT, 1000BaseT, 1GBase-T, 10GBaseT or up to 10,000 Mbit/s.

Temperature limit conditions:

- Ambient installation temperature, range: from 0°C to +50°C
- Operating temperature, range: from -20 °C to +60°C

Mechanical properties:

Minimum internal bending radius:

(D = cable outer diameter)

- No load 4xD
- during installation (under load): 8xD
- packaging: 305m in box, 500m on wooden reel

Flame resistance:

- the cable is self-extinguishing according to IEC 60332-1 / EN 60332-1
- LSHF version additionally:
 - halogen-free according to IEC 60754-2; IEC 60332-1
 - non-corrosive combustion gases according to IEC 60754-2
 - minimal smoke emission according to IEC 61034-2

Cable construction

Conductor category class:	1 = solid conductor
Conductor material	Pure copper
AWG size	23/1
Insulation material	Skin-Foam-Skin or Polyethylene (HDPE)
Nominal diameter through insulation	1.28 mm
Twisting:	2 cores in a pair
Cable lay up:	4 pairs to the core
	PE cross separator (spline)
Screen	Aluminum Polyester Tape
Screen braiding	Tinned copper
Sheath:	LSHF (LSZH,FRNC)
Outer diameter:	7.1-7.4 mm
Sheath color:	Blue (RAL 5012)

Conductor color marking:

- 1st suit: blue/white with blue line
- 2nd suit: orange/white with orange line
- 3rd suit: green/white with green line
- 4th suit: brown/white with brown line

Electrical characteristics at 20°C ± 5°C

Characteristic impedance	1-100 MHz	100 ± 15 Ω
	100-250 MHz	100 ± 22 Ω
	250-500 MHz	100 ± 25 Ω
Resistance unbalance, max.		% 4
Loop resistance at 20°C, max.		(Ω/100m) ≤ 16
Test voltage (DC, 1min)		v 1000
Capacitance unbalance		(pF/100m) ≤ 330
Capacitance at 1000 Hz		(nF/100m) ≤ 5.6

Transmission characteristics

Propagation delay at 500 MHz
Delay skew
Nominal velocity of propagation

(ns/100m) ≤536
(ns/100m) ≤ 45
approx. 68 %

Technical data

Cable type	Number of pairs (23AWG)	insulation diameter mm	Outer diameter mm	weight kg/km
Cat 6A SF/UTP LSZH	4	1.28	7.1-7.4	55-57

Electrical performance

f (MHz)	Attenuation (dB/100 m)	NEXT (dB)	PS-NEXT (dB)	ACR-F (dB/100m)	PS-ACRF (dB/100m)	Return loss (dB)
1	2.1	75	73	68.2	65.2	20
4	3.8	66	64	56.1	53.1	23
16	7.5	57	55	43.9	40.9	25
100	19.1	45	43	28.1	25.1	20.1
250	31.1	39	37	19.9	16.9	17.3
500	45.3	34	32	13.8	10.8	15.2



The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.