

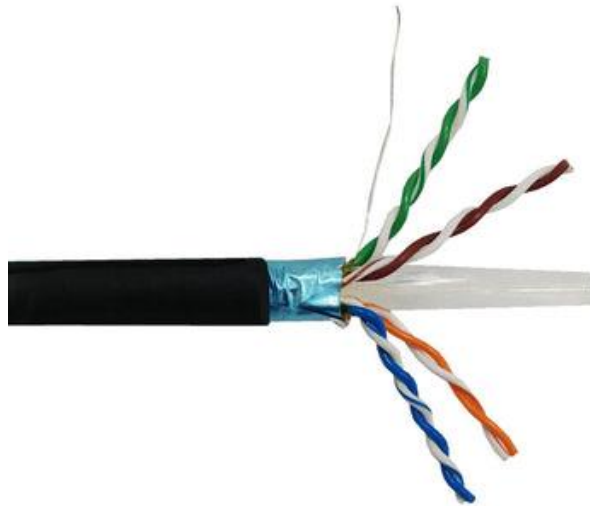


## Cat.6A F/UTP PE AWG23/1

LAN cable with 4 pairs, outdoor  
category 6A , with cable core screen



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 F/UTP PE outdoor 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 F/UTP PE 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 F/UTP PE exceed the minimum specified performance for Category 6A F/UTP PE 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. Its PE sheath makes it ideal for direct burial, underground ducts and outdoor cable ducts that require long service life and consistent signal quality.

**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 (HDPE)	Skin-Foam-Skin or Polyethylene
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)
Sheath:	LDPE
Outer diameter:	6.5-6.8 mm
Sheath color:	Black(RAL 9005)

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**

Resistance unbalance , max.	% 2
Loop resistance at 20°C , max.	(Ω/km) ≤ 178
Test voltage ( DC,1min)	v 1000
Operating voltage, max.	v 125
Capacitance unbalance	(pF/km) ≤ 1500
Capacitance at 800 Hz	nF/km 43

**Transmission characteristics**

Propagation delay (max. 100MHz)	(ns/100m) ≤427
Delay skew	(ns/100m) ≤ 12

**Technical data**

Cable type	Number of pairs (23AWG)	insulation diameter mm	Outer diameter mm	weight kg/km
Cat 6A F/UTP PE outdoor	4	1.28	6.5-6.8	46-48

**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.