CAT 6A CABLE

High reliability Cat 6A Ethernet cable & cordsets

General construction

A 4 pairs, 26 AWG, 100 Ohm SFTP round patch cable, designed to the ISO / IEC 11801 Category 6A requirements. The cable contains 4 twisted pairs individually shielded, cabled, double shielded with kevlar reinforcement strands, jacketed in black UV resistant Polyurethane HFFR. Designed for fixed or portable applications in harsh environments.

HFFR: Halogen Free Flame Retardant

Jacket compound specification:

- Halogen free flame retardant polyether-based polyurethane
- Excellent hydrolysis resistance
- High microbial resistance
- Glossy finish
- UV resistant
- High flexibility

Applications

- Robotics
- Motion control
- Railways
- CNC machines
- Battlefield communication
- Industrial process control

Datas for the cable alone only (without RJ45 plug)

Electrical characteristics *(at 20°C - 68°F)*

DC Resistance	290 Ohm/Km
Impedance *(100 MHz)*	100 +/- 5 Ohm

Frequency	Attenuation *(dB/100m)*	N.E.X.T. *(Near-End Crosstalk Loss)*
1 MHz	3.1 dB	75.3 dB min.
4 MHz	5.7 dB	66.3 dB min.
8 MHz	8.0 dB	61.8 dB min.
10 MHz	8.9 dB	60.3 dB min.
16 MHz	11.2 dB	57.2 dB min.
20 MHz	12.6 dB	55.8 dB min.
25 MHz	14.1 dB	54.3 dB min.
31.25 MHz	15.8 dB	52.8 dB min.
62.5 MHz	22.5 dB	48.4 dB min.
100 MHz	28.7 dB	45.3 dB min.
200 MHz	41.4 dB	40.8 dB min.
250 MHz	46.6 dB	39.3 dB min.
300 MHz	51.4 dB	38.1 dB min.
400 MHz	60.1 dB	36.3 dB min.
500 MHz	67.9 dB	34.8 dB min.

Capacitance (1 kHz)	50nF/km nom.
Capacitance unbalance	1600 pF/km max.
Insulation resistance	5 GOhm/km
Voltage rating (peak)	230 V
Dielectric strength	VAC/1 min - 700 V/Min
Propagation delay	4.6 ns/m
Skew	45 ns/100m
Resistance unbalance	2%
Return loss (500 MHz)	15.6dB
Velocity of propagation	72% nom.

Reel of cable *(without RJ45 plug on ends)*

Length (m / ft)	Part number
100 m / ~328 ft	191-031190-00
300 m / ~984 ft	191-031190-01

Physical characteristics

Conductors	26 AWG (0,14 mm²) tinned copper
Insulation	Density Polyethylene, Nom. Dia. 0,039" (1mm)
Assembly	Pairs cabled with Kevlar strength members and separation tape wrapped
Shields	Inner: aluminium mylar 100% coverage Outer: tinned copper braid 80% coverage
Jacket	Black, special PUR compound
Weight	36.9 lbs / mft (55 kg/km)
Outside diam.	0.272" (6.9 mm) nom.
Min bend radius *(During installation)*	72mm (10x O. D.)
MIn bend radius *(During operation)*	36mm (5 x O.D.)
Min flexes to failure	Passes IEC 61156-6 requirements
Temperature	-40°C *(-40°F)* / + 85°C *(185°F)*

Cordsets with a RJ45 plug overmolded on each end

Length (m/ft)	Part number
0,75 m / *2,46 ft*	RJF SFTP 6A 0075
1,00 m / *3,28 ft*	RJF SFTP 6A 0100
1,50 m / *4,92 ft*	RJF SFTP 6A 0150
2,00 m / *6,56 ft*	RJF SFTP 6A 0200
2,50 m / *8,20 ft*	RJF SFTP 6A 0250
3,00 m / *9,84 ft*	RJF SFTP 6A 0300
3,50 m / *11,48 ft*	RJF SFTP 6A 0350
4,00 m / *13,12 ft*	RJF SFTP 6A 0400
4,50 m / *14,76 ft*	RJF SFTP 6A 0450
5,00 m / *16,40 ft*	RJF SFTP 6A 0500
6,00 m / *19,68 ft*	RJF SFTP 6A 0600
7,00 m / *22,96ft*	RJF SFTP 6A 0700
8,00 m / *26,24 ft*	RJF SFTP 6A 0800
9,00 m / *29,52 ft*	RJF SFTP 6A 0900
10,00 m / *32,80 ft*	RJF SFTP 6A 1000
15,00 m / *49,20 ft*	RJF SFTP 6A 1500
20,00 m / *65,60 ft*	RJF SFTP 6A 2000
25,00 m / *82,00 ft*	RJF SFTP 6A 2500
30,00 m / *98,40 ft*	RJF SFTP 6A 3000
35,00 m / *114,80 ft*	RJF SFTP 6A 3500
40,00 m / *131,20 ft*	RJF SFTP 6A 4000
45,00 m / *147,60 ft*	RJF SFTP 6A 4500
50,00 m / *164,00 ft*	RJF SFTP 6A 5000
60,00 m / *196,80 ft*	RJF SFTP 6A 6000