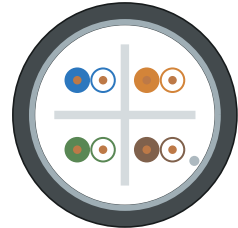


Cat6 F/UTP

4 pairs / 23 AWG / PE / 250 MHz



Ø 7.1 mm approx.

SCHEMATIC / NOT TO SCALE

UPCOM series illustration. Jacket colour and conductor size follow the specification below.

7.10 mm

APPROX. OUTER DIAMETER

45 kg/km

APPROX. CABLE WEIGHT

19 kg/km

COPPER WEIGHT

An overall foil screen encloses four twisted pairs arranged around a cross separator. The 250 MHz cable is intended for fixed Cat6 networks using screened connecting hardware.

CONSTRUCTION

Conductor	Solid annealed copper, 23 AWG
Insulation	Solid polyethylene (PE); EN 50290-2-23
Core assembly	4 twisted pairs around a cross separator
Pair identification	Colour coded to ANSI/TIA-568
Individual pair screen	None
Overall screen	Aluminium/polyester foil
Drain wire	Tinned copper
Outer jacket	Polyethylene (PE); EN 50290-2-24
Jacket colour	RAL 9005 Black; other colours on request

APPLICATION

10BASE-T, 100BASE-TX and 1000BASE-T. IEEE 802.3af / 802.3at (Types 1 and 2).

Link length, connecting hardware and PoE bundle temperature must be checked for the complete installation.

Cat6 F/UTP

4 pairs / 23 AWG / PE

ELECTRICAL CHARACTERISTICS / 20°C

Conductor resistance at 20°C	< 85 Ω/km	Delay skew	< 45 ns/100 m
Resistance unbalance	< 1%	Operating voltage	72 V
Insulation resistance, 500 V DC / 1 min	> 5000 MΩ·km	Dielectric test, 1 min	1000 V
Mutual capacitance	50 pF/m	Transverse conversion loss (TCL)	Minimum level 2
Capacitance unbalance	1600 pF/km	Coupling attenuation	Type II
Characteristic impedance at 100 MHz	100 ± 5 Ω	Transfer impedance	Grade 2
Velocity of propagation	67%	Segregation class	c

SELECTED TRANSMISSION CHARACTERISTICS

Frequency MHz	Insertion loss dB / 100 m	NEXT dB	PS NEXT dB	Return loss dB
4	3.6	78	75	32
10	5.7	75	72	25
16	7.2	70	66	25
31.25	10.5	70	64	30
62.5	14.6	60	60	30
100	18.5	60	58	30
250	30	55	52	24

Cable reference values over the stated operating band. Channel performance depends on the installed link.

INSTALLATION AND JACKET

Operating temperature	-20°C to +60°C	PE-jacketed version for routes specifying a polyethylene outer sheath. UV exposure, water blocking and direct burial requirements must be specified separately.
Minimum bend radius	8 × D / approx. 56.8 mm	
D	Actual cable outer diameter	

PE jacket fire performance and installation exposure are confirmed for the specified order.

Reference specifications: IEC 61156-5, ISO/IEC 11801, EN 50173-1, EN 50288-5-1, ANSI/TIA-568.2-D.

State any required fire class explicitly when requesting a PE-jacketed construction.