



ELECTRICAL DATA

The electrical data in this document is relevant for the following copper dimensions: 0.4, 0.6 and 0.9 mm.

1. Attenuation (values at 1 MHz)

Conductor diameter (mm)	Maximum average (dB/km)	Maximum individual (dB/km)
0.4	22.9	23.4
0.6	16.2	16.6
0.9	12.2	13.0

2. Crosstalk (values at 1 MHz)

NEXT/FEXT	Minimum average (dB)	Minimum individual (dB)
NEXT 2 pair cable		46
NEXT within sub unit	58	48
NEXT between sub units	63	50
FEXT 2 pair cable		36
FEXT within sub unit	56	39
FEXT between sub units	61	44

3. Characteristic impedance (values at 1 MHz)

Conductor diameter (mm)	Nominal (ohm)	Tolerance (ohm)
0.4	115	10
0.6	110	10
0.9	110	10

4. Conductor resistance

Conductor diameter (mm)	Maximum average (ohm/km)	Maximum individual (ohm/km)	Unbalance (%)
0.4	143.9	149.9	4
0.6	63.9	66.6	2
0.9	27.8	29	2

5. Dielectric strength and insulation resistance

Voltage test:

conductor-conductor: 1000 V DC for 3 sec.
 conductor-screen: 2000 V DC for 3 sec.

Insulation resistance: ≥ 5000 Mohm km



6. *Mutual capacitance*

Number of pairs	Maximum average (nF/km)	Maximum individual (nF/km) Conductor diameter (mm)	
		0.4 and 0.6	0.9
2		52	52
5 and 10	45±3	52	49
20 and more	45±2	49	49

7. *Capacitance unbalance (values at 1 kHz)*

	Maximum individual (pF/km) Conductor diameter (mm)		80% values per cable (pF/km) Conductor diameter (mm)	
	0.4 and 0.6	0.9	0.4 and 0.6	0.9
Pair-pair, 2 pairs	800	800		
Pair-pair, 5 pairs	300	300		
Pair-pair, ≥10 pairs	150	100		
Pair-earth, ≤10 pairs	3000	2900	1200	1150
Pair-earth, >10 pairs	3000	2000	1200	800