



EC500 Cat 6A F/UTP PE F_{ca}

Application

10Base-T, 100Base-T, 1000Base-T, 10GBase-T, and Fibredbus systems. Applicable for Power over Ethernet PoE / PoE+

Cable Construction

- 23 AWG Bare Copper
- PE Insulation
- Pair Separator
- Polyester Band
- Tinned Copper Drain Wire
- Al-Pet Foil
- 100% Coverage
- Ø 7.80 ± 0.20 mm PE

Technical Properties

Cable Weight	51 kg/km
Copper Weight	22 kg/km
Min. Bending radius during draw in	60 mm
Min. Bending radius permanently installed	30 mm
Max. Tensile Strength	90 N
Min. Crush Resistance	1000 N/10 cm
Min. Impact	10 Impacts
Installation Temperature	0°C ... +50°C
Operating Temperature	-20°C ... +70°C
Packing	305 / 500 m

Electrical Properties

	at 20 °C
Max. Conductor Resistance	< 9.5 Ω / km
Max. Resistance Unbalance	< 2%
Min. Insulation Resistance	5000 MΩ x m
Mutual Capacitance	< 60 pF / m
Capacitance Unbalance	1600 pF / km
Impedance at 100 MHz	100 ± 5 Ω
Velocity of Propagation	66 %
Delay Skew	< 45 ns / 100 m
Coupling Attenuation	> 55 dB
Segregation Class	C
Transfer Impedance 1/10/30	< 50/100/200 mΩ/m
Test Voltage	1000 V
Operating Voltage	125 V

Standards

EIA/TIA-568
ISO/IEC 11801 Class F
IEC 61156-5, EN 50173-1
EN 50288-4-1

Euro Class

F_{ca}

Electrical Data (Nominal)

@ 20 °C

Frequency (MHz)	Attenuation (dB/100 m)	NEXT (dB)	PS - NEXT (dB)	ACR (dB/100 m)	PS-ACR (dB/100 m)	ACRF (dB/100 m)	PS-ACRF (dB/100 m)	Return Loss (dB)
1	2.0	95	92	90	87	100	97	25
4	3.6	95	92	90	87	100	97	25
10	5.4	95	92	85	82	90	87	28
100	18.3	87	84	75	72	75	72	25
200	25.0	87	84	75	72	70	67	25
250	29.1	85	82	52	49	65	62	23
400	37.4	75	72	41	48	55	52	23
500	41.5	75	72	30	27	55	52	21