



## EC500 Cat 6A F/UTP

### 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
- LSZH or PE

### Technical Properties

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

### Electrical Properties

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

### Standards

EIA/TIA-568  
ISO/IEC 11801 Class EA  
IEC 61156-5, EN 50173-1  
EN 50288-11-1

### 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

Product Name	Euro Class (CPR)	Flame Retardancy	Corrosive Gases Test	Smoke Density	Cable Weight
EC500 Cat 6A F/UTP LSZH C <sub>ca</sub>	C <sub>ca</sub>	EN 60332-1-2	EN 50267-2-3	EN 61034-2	60
EC500 Cat 6A F/UTP LSZH D <sub>ca</sub>	D <sub>ca</sub>	EN 60332-1-2	EN 50267-2-3	EN 61034-2	60
EC500 Cat 6A F/UTP LSZH E <sub>ca</sub>	E <sub>ca</sub>	EN 60332-1-2	EN 50267-2-3	EN 61034-2	60
EC500 Cat 6A F/UTP PE F <sub>ca</sub>	F <sub>ca</sub>	N/A	N/A	N/A	51