



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

Application

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

Cable Construction

- 23 AWG Bare Copper
- PE Insulation
- Pair Separator
- Ø 6.20 ± 0.20 mm PE

Technical Properties

Cable Weight	46 kg/km
Copper Weight	20.4 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

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
Test Voltage	1000 V
Operating Voltage	125 V

at 20 °C

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	75	72	58	55	68	65	34
4	3.8	66	63	46	43	56	53	30
10	5.9	60	57	43	40	48	45	27
100	19.2	45	42	23	20	28	25	20
200	27.8	41	38	17	14	22	19	18
250	31.3	39	36	15	12	20	17	17
400	40.4	36	33	11	8	16	13	16
500	45.7	35	32	9	6	14	11	15