



## EC400 Cat 6 F/UTP PE F<sub>ca</sub>

### Application

10Base-T, 100Base-T, 1000Base-T, and Fieldbus 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 7.20 ± 0.20 mm PE

### Technical Properties

Cable Weight	54 kg/km
Copper Weight	20.3 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 E  
IEC 61156-5, EN 50173-1  
EN 50288-5-1

Euro Class  
F<sub>ca</sub>

### 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	83	80	85	82	83	80	25
4	3.6	73	70	70	67	70	67	31
10	6.0	73	70	65	62	60	57	30
100	19.5	55	52	40	37	35	32	25
200	28.5	50	47	25	22	30	27	22
250	32.0	45	42	25	22	22	19	22
300	33.0	40	37	15	12	20	17	22
400	39.0	40	37	7	4	20	17	20