



## EC900 Cat 7 S/FTP LSZH E<sub>ca</sub>



### 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
- Skin/Foam/Skin PE Insulation
- Al-Pet Foil 100% Coverage
- Tinned Copper Wire Braiding
- Ø 7.30 mm ± 0.20 LSZH

### Technical Properties

|                                           |                 |
|-------------------------------------------|-----------------|
| Cable Weight                              | 58 kg/km        |
| Copper Weight                             | 24.9 kg/km      |
| Min. Bending radius during draw in        | 60 mm           |
| Min. Bending radius permanently installed | 30 mm           |
| Max. Tensile Strength                     | 95 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                | < 56 pF / m     |
| Capacitance Unbalance             | 1600 pF / km    |
| Impedance at 100 MHz              | 100 ± 5 Ω       |
| Velocity of Propagation           | 76 %            |
| Delay Skew                        | < 25 ns / 100 m |
| Coupling Attenuation              | > 80 dB         |
| Segregation Class                 | D               |
| Transfer Impedance at 1/10/30 MHz | < 10/10/30 mΩ/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  
E<sub>ca</sub>  
Flame Retardancy  
EN 60332-1-2  
Corrosive Gases Test  
EN 50267-2-3  
Smoke Density  
EN 61034-2

### 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                    | 104       | 101            | 99             | 96                | 101             | 98                 | 24               |
| 4               | 3.4                    | 104       | 101            | 97             | 94                | 98              | 95                 | 30               |
| 10              | 4.9                    | 101       | 98             | 95             | 92                | 98              | 95                 | 32               |
| 100             | 17.3                   | 100       | 97             | 82             | 79                | 84              | 81                 | 34               |
| 250             | 28.2                   | 95        | 92             | 63             | 60                | 70              | 67                 | 27               |
| 500             | 42.0                   | 95        | 92             | 56             | 53                | 61              | 58                 | 24               |
| 600             | 44.0                   | 88        | 85             | 45             | 42                | 59              | 56                 | 22               |
| 700             | 53.5                   | 84        | 81             | 30             | 27                | 52              | 49                 | 20               |
| 800             | 55.5                   | 83        | 80             | 28             | 25                | 50              | 47                 | 19               |
| 900             | 57.3                   | 80        | 77             | 23             | 20                | 49              | 46                 | 18               |
| 1000            | 59.1                   | 77        | 75             | 23             | 20                | 48              | 45                 | 18               |