

# EUROLAN Copper cable

## C6<sub>A</sub> S/FTP



### Ordering information

| Part number      | E-number | Description                                             |
|------------------|----------|---------------------------------------------------------|
| 19D-SA-23WT-R500 | 4903235  | Eurolan C6 <sub>A</sub> 4 pair S/FTP LSZH Dca 500m/reel |

### Construction

|                 |                                       |
|-----------------|---------------------------------------|
| Conductor       | Bare copper wire Ø 0,56 mm (AWG23)    |
| Insulation      | Foamskin Polyethylene, Ø 1.38±0,05 mm |
| Twisting        | 2 cores to the pair                   |
| Pair screen     | Al-laminated plastic foil             |
| Cable lay up    | 4 pairs (PiMF) to the core            |
| Screen          | Copper braid, tinned                  |
| Sheath          | Ø 7,5 ± 0,5mm FR-LSZH (complies RoHS) |
| Fire load       | 608 MJ/km; 0,185 kWh/m                |
| Weight kg/km    | 58,6                                  |
| Copper content  | 29                                    |
| Tensile force N | 110                                   |

### Mechanical Properties

|                   |                     |                 |
|-------------------|---------------------|-----------------|
| Bending radius    | Installation        | 8 x OD          |
|                   | Installed           | 4 x OD          |
| Temperature range | During operation    | -20°C to + 60°C |
|                   | During installation | 0°C to + 50°C   |

### DoP

|                      |                                                                   |
|----------------------|-------------------------------------------------------------------|
| Documentno           | ZMEU-100010                                                       |
| Certification date   | 2017-07-24                                                        |
| AVCP                 | System 3                                                          |
| Notified body        | 3P Third Party Testing, Denmark                                   |
| Declared performance | Reaction to Fire: Dca-s2,d2,a2 according to EN-50575:2014+A1:2016 |



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✓ Verified for high-speed applications up to 650 MHz (10Gbit Ethernet)

✓ **Application:**  
Primary (campus), Secondary (riser), Tertiary (horizontal)  
IEEE 802.3:  
10/100/1000/10000/10GBaseT  
IEEE 802.5 16MB; ISDN; TPDDI; ATM  
Power over Ethernet (PoE)/ PoE+

✓ **Standards:**  
EIA/TIA 568-C.2  
ISO/IEC 11801 2nd ed; IEC 61156-5  
EN 50173-1; EN 50288-10  
IEEE 802.3af

✓ **Fire rating:**  
EN 50399: Class Dca s2 d1 a1  
LSZH: IEC 60332-1; IEC 60754-2;  
IEC 61034

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### Electrical Properties (at 20°C +/- 5°C)

|                                            |                                       |                |
|--------------------------------------------|---------------------------------------|----------------|
| Loop resistance                            |                                       | ≤ 154 Ω/km     |
| Resistance unbalance                       |                                       | ≤ 2%           |
| Insulation resistance                      | (500 V)                               | ≥ 5000 MΩxkm   |
| Capacitance                                | At 800 Hz                             | Nom. 43 nF/km  |
| Capacitance unbalance                      | (pair to ground)                      | ≤ 1500 pF/km   |
| Nominal velocity propagation (NVP)         |                                       | Approx. 79%    |
| Mean impedance 100MHz                      | 100 MHz                               | 100+/- 5Ω      |
| Propagation delay                          | Nominal                               | ≤ 427 ns/100 m |
| Delay skew                                 | Nominal                               | ≤ 12 ns/100 m  |
| Test voltage                               | (DC, 1 min) Core/Core and Core/Screen | 1000 V         |
| Transfer impedance                         | At 1 MHz                              | ≤ 10 mΩ/m      |
|                                            | At 10 MHz                             | ≤ 8 mΩ/m       |
|                                            | At 30 MHz                             | ≤ 10 mΩ/m      |
| Coupling attenuation                       |                                       | 80dB           |
| Segregation classification acc. EN 50174-2 |                                       | „D“            |

### Electrical Data (nominal) acc. to C6<sub>A</sub> (at 20°C)

| F     | Attenuation | NEXT | PS-NEXT | ACR-F     | PS-ACR-F  | Return loss |
|-------|-------------|------|---------|-----------|-----------|-------------|
| (MHz) | (dB/100m)   | (dB) | (dB)    | (dB/100m) | (dB/100m) | (dB)        |
| 4,0   | 3,5         | 100  | 97      | 84        | 81        | 24          |
| 10,0  | 5,6         | 100  | 97      | 83        | 80        | 30          |
| 20,0  | 7,9         | 100  | 97      | 81        | 78        | 30          |
| 62,5  | 14,2        | 100  | 97      | 67        | 64        | 30          |
| 100,0 | 18,5        | 100  | 97      | 63        | 60        | 30          |
| 250,0 | 29,1        | 90   | 87      | 55        | 52        | 25          |
| 500,0 | 44,8        | 83   | 80      | 52        | 49        | 21          |
| 600,0 | 49,6        | 82   | 79      | 47        | 44        | 20          |
| 650,0 | 51,8        | 82   | 79      | 45        | 42        | 20          |