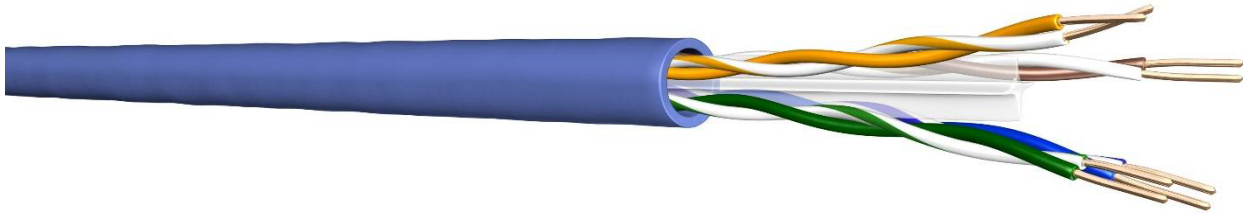


# UC400 23 Cat. 6 U/UTP LSHF D65 B2<sub>ca</sub>

## U/UTP AWG23/1 Installation Cable



### Application

Primary (Campus), Secondary (Riser), Tertiary (Horizontal)  
IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T;  
IEEE 802.5 16 MB; ISDN; TPDDI; ATM  
Power over Ethernet (PoE) / Type 1-4

### Standards

EIA/TIA-568-C.2  
ISO/IEC 11801.; IEC 61156-5  
EN 50173-1, EN 50288-6-1  
IEEE 802.3af / at / bt

### Flame resistance

EN 50399: Class B2<sub>ca</sub> s1a d1 a1  
LSHF-FR Cca (FRNC-C): IEC60332-3-24; IEC 60332-1; 60754-2; IEC 61034;

### Construction

|              |  |
|--------------|--|
| Conductor    | bare copper wire Ø 0.56 mm (AWG23/1)                         |
| Insulation   | Polyethylene, Ø 1.0 mm                                       |
| Twisting     | 2 cores to the pair  |
| Cable lay up | 4 pairs to the core<br>non metallic cross separator (spline) |
| Sheath       | LSHF-FR (FRNC, LSOH), blue RAL 5012                          |

### Mechanical properties

|                        |                     |                    |
|------------------------|---------------------|--------------------|
| Minimum bending radius | Installation        | 8 x D              |
|                        | Installed           | 4 x D              |
| Temperature range      | during operation    | -20°C up to + 60°C |
|                        | during installation | 0°C up to + 50°C   |

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### Electrical properties

at 20°C

|  |                     |
|--|---------------------|
| DC loop resistance                     | 154 Ω/km            |
| Resistance unbalance                   | ≤ 2%                |
| Insulation resistance (500 V)          | ≥ 5000 MΩ *km       |
| Capacitance at 800 Hz                  | Nom. 48 nF/km       |
| Capacitance unbalance (pair to ground) | ≤ 1500 pF/km        |
| Mean impedance 100 MHz                 | 100 ± 5 Ω           |
| Nominal velocity of propagation        | Approx. 67 %        |
| Propagation delay                      | Nominal 535 ns/100m |
| Delay skew                             | Nominal 20 ns/100m  |
| Test voltage (DC, 1 min)               | 1000 V              |
| Core/Core                              |                     |
| Coupling attenuation                   | ≥ 40 dB             |

### Transmission characteristics acc. to Category 6

at 20°C

| f<br>(MHz) | Attenuation<br>(dB/100m) |      | NEXT<br>(dB) |      | PS-NEXT<br>(dB) |      | ACR<br>(dB/100m) |      | PS-ACR<br>(dB/100m) |      | ACRF<br>(dB/100m) |      | PS-ACRF<br>(dB/100m) |      | Return loss<br>(dB) |
|------------|--------------------------|------|--------------|------|-----------------|------|------------------|------|---------------------|------|-------------------|------|----------------------|------|---------------------|
|            | max.                     | Nom. | min.         | nom. | min.            | Nom. | Min.             | Nom. | Min.                | Nom. | min.              | Nom. | min.                 | Nom. |                     |
| 1          | 2.1                      | 1.9  | 74           | 78   | 72              | 75   | 72.0             | 76.1 | 70.0                | 73.1 | 68                | 82   | 65                   | 80   | 20                  |
| 4          | 3.8                      | 3.8  | 65           | 69   | 63              | 66   | 61.2             | 65.2 | 59.2                | 62.2 | 56                | 70   | 53                   | 68   | 23                  |
| 10         | 6.0                      | 6.0  | 59           | 63   | 57              | 60   | 53.0             | 57.0 | 51.0                | 54.0 | 48                | 62   | 45                   | 60   | 25                  |
| 16         | 7.6                      | 7.6  | 56           | 60   | 54              | 57   | 48.4             | 52.3 | 46.4                | 49.3 | 44                | 58   | 41                   | 56   | 25                  |
| 20         | 8.5                      | 8.5  | 55           | 59   | 53              | 56   | 46.5             | 50.0 | 44.5                | 47.0 | 42                | 56   | 39                   | 54   | 25                  |
| 31.2       | 10.7                     | 10.7 | 52           | 56   | 50              | 53   | 41.3             | 45.0 | 39.3                | 42.0 | 38                | 52   | 35                   | 50   | 23.6                |
| 62.5       | 15.5                     | 15.1 | 47           | 51   | 45              | 48   | 31.5             | 36.0 | 29.5                | 33.0 | 32                | 46   | 29                   | 44   | 21.5                |
| 100        | 19.9                     | 19.1 | 44           | 48   | 42              | 45   | 24.1             | 28.9 | 22.1                | 25.9 | 28                | 42   | 25                   | 40   | 20.1                |
| 125        | 22.5                     | 21.3 | 43           | 47   | 41              | 44   | 20.5             | 25.2 | 18.5                | 22.2 | 26                | 40   | 23                   | 38   | 19.5                |
| 155.5      | 25.4                     | 23.8 | 42           | 45   | 40              | 42   | 16.6             | 21.3 | 14.6                | 18.3 | 24                | 38   | 21                   | 36   | 18.8                |
| 175        | 27.1                     | 25.3 | 41           | 44   | 39              | 41   | 13.9             | 19.1 | 11.9                | 16.1 | 23                | 37   | 20                   | 35   | 18.4                |
| 200        | 29.2                     | 27.0 | 40           | 44   | 38              | 41   | 10.8             | 16.5 | 8.8                 | 13.5 | 22                | 36   | 19                   | 34   | 18.0                |
| 250        | 33.0                     | 32.0 | 38           | 42   | 36              | 39   | 5.0              | 10.0 | 2.0                 | 7.0  | 20                | 34   | 17                   | 32   | 17.3                |
| 300        |                          | 36.1 |              | 41   |                 | 38   |                  | 4.8  |                     | 1.8  |                   | 32   |                      | 30   |                     |
| 400        |                          | 41.7 |              | 39   |                 | 36   |                  | -2.7 |                     | -5.7 |                   | 30   |                      | 28   |                     |

## UC400 23 Cat. 6 U/UTP LSHF D65 B2<sub>ca</sub>

### Product order data

| Product code | Designation         | Product name  | Outer diameter<br>mm | Euro Class               | Fire load |       | Weight<br>kg/km | Copper content<br>kg/km | Tensile force<br>N |
|--------------|---------------------|---|----------------------|--------------------------|-----------|-------|-----------------|-------------------------|--------------------|
|              |                     |   |                      |                          | MJ/km     | kWh/m |                 |                         |                    |
| 60080761     | J-2YH<br>2x4x2x0.56 | UC400 23 C6 U/UTP 4P LSHF<br>D65 B2 <sub>ca</sub> BU 500DW  | 6.1                  | B2 <sub>ca</sub> s1ad1a1 | 527       | 0.15  | 46              | 20.5                    | 100                |
| 60080772     |                     | UC400 23 C6 U/UTP 4P LSHF<br>D65 B2 <sub>ca</sub> BU 1000DW |                      | B2 <sub>ca</sub> s1ad1a1 | 527       | 0.15  | 46              | 20.5                    | 100                |