Draka - UC900 SS27 Cat.7 S/FTP 4P PUR for industrial applications

\*\*UC Industrial cables

Especially in difficult industrial conditions electrical reserves are needed to ensure an operation of Industrial Ethernet in each case. The cable must withstand loads as follows:

• Chemical substances such as oils, solvents etc.
• Permanent movement or vibration such as the use in cable
  carriers
• Advanced ambient electromagnetic interference
• Both the cable and through the cable

\*\*TP Cable

\*\*TECHNISCHE\_DATEN

Application
Work area and patch cord cable
IEEE 802.3: 10Base-T; 100Base-T;1000Base-T; 10GBase-T
IEEE 802.5 16 MB; ISDN; TPDDI; ATM

Standards
EIA/TIA 568A;
ISO/IEC 11801 2nd ed.; IEC 61156-6
EN 50173-1; EN 50288-4-2

Flame resistance
LSHF (FRNC): IEC 60332-1; IEC 60754-2; IEC 61034

Chemical resistance
Oil resistant against Mineral – oil, ASTM – oil
The sheath material is tested in Hydraulic oil
ARAL VITAM 32, Mobil DTE 13 M, Gear oil ARAL DEGOL BG Plus 320 and Tribol 1710/320.

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| Type | UC900 SS27 Cat.7 S/FTP |
| Conductor | Stranded bare copper wire Ø 0.42 mm (AWG 27/7) |
| Insulation | Foam Skin Polyethylene, Ø 0.98 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 | PUR, red |

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| Bending radius | Without load | ≥ 25 mm |
|   | With load | ≥ 50 mm |
| Temperature range  | During operation | -35°C to +75°C |
|   | During installation |  -5°C to +50°C |
| UV resistance of the jacket material |   | according to IEC60068-2-5 |
| Ozone resistance |   | according to EN 60811-2-1, clause 8 |
| Smoke density |   | according to EN 50268-2, IEC61034-1 and 2 |
| Corrosivity |   | according to EN 50267-1 and 2, IEC 60754-1 and 2 |

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| Loop resistance |   | ≤ 340 Ω/km |
| Resistance unbalance |   | ≤ 3% |
| Insulation resistance | (500 V) | ≥ 2000 MΩkm |
| Mutual capacitance | at 800 Hz | Nom. 43 nF/km |
| Capacitance unbalance | (pair/ground) | ≤ 1500 pF/km |
| Characteristic impedance | (1-100) MHz | (100 ± 15) Ω |
|   | (100 - 250) MHz | (100 ± 18) Ω |
|   | (250 - 600) MHz | (100 ± 25) Ω |
| Nominal velocity of propagation |   | ca. 79% |
| Propagation delay |   | ≤ 427 ns/100m |
| Delay skew |   | ≤ 12 ns/100m |
| Test voltage | (DC, 1 min) core/core and core/screen | 1000 V |
| Transfer impedance | at 1 MHz | 25 mΩ/m |
|   | at 10 MHz | 15 mΩ/m |
|   | at 30 MHz | 30 mΩ/m |
| Coupling attenuation |   | 75 dB |

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| F MHZ | Attenuation dB/10m | NEXT dB | PS- NEXT dB | ACR dB/100m | ELFEXT dB/100m | PS-ELFEXT dB/100m | Return loss dB |
| 1.0 | 0.3 | 90 | 87 | 90 | 80 | 77 | 23 |
| 4.0 | 0.6 | 90 | 87 | 89 | 80 | 77 | 24 |
| 10.0 | 1.0 | 90 | 87 | 89 | 80 | 77 | 25 |
| 16.0 | 1.3 | 90 | 87 | 89 | 76 | 73 | 25 |
| 20.0 | 1.4 | 90 | 87 | 89 | 74 | 71 | 25 |
| 31.2 | 1.8 | 90 | 87 | 88 | 70 | 67 | 25 |
| 62.5 | 2.6 | 90 | 87 | 87 | 64 | 61 | 23 |
| 100.0 | 3.2 | 87 | 84 | 84 | 60 | 57 | 21 |
| 125.0 | 3.6 | 85 | 82 | 81 | 58 | 55 | 20 |
| 155.5 | 4.0 | 84 | 81 | 80 | 56 | 53 | 19 |
| 175.0 | 4.3 | 83 | 80 | 79 | 55 | 52 | 19 |
| 200.0 | 4.6 | 82 | 79 | 77 | 54 | 51 | 18 |
| 250.0 | 5.1 | 81 | 78 | 76 | 52 | 49 | 18 |
| 300.0 | 5.6 | 80 | 77 | 74 | 50 | 47 | 17 |
| 450.0 | 6.9 | 77 | 74 | 70 | 47 | 44 | 17 |
| 600.0 | 7.9 | 75 | 72 | 67 | 44 | 41 | 17 |
| 750.0 | 8.7 | 73 | 70 | 64 | 42 | 39 |   |
| 900.0 | 9.7 | 72 | 69 | 62 | 41 | 38 |   |
| 1000.0 | 10.2 | 71 | 68 | 61 | 40 | 37 |   |

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| Outerdiameter | 5.9 mm |
| Fire load | 383 MJ/km |
|   | 0.106 kWh/m |
| Weight | 34 kg/km |
| Copper content | 24 |
| Tensile force | 100 N |