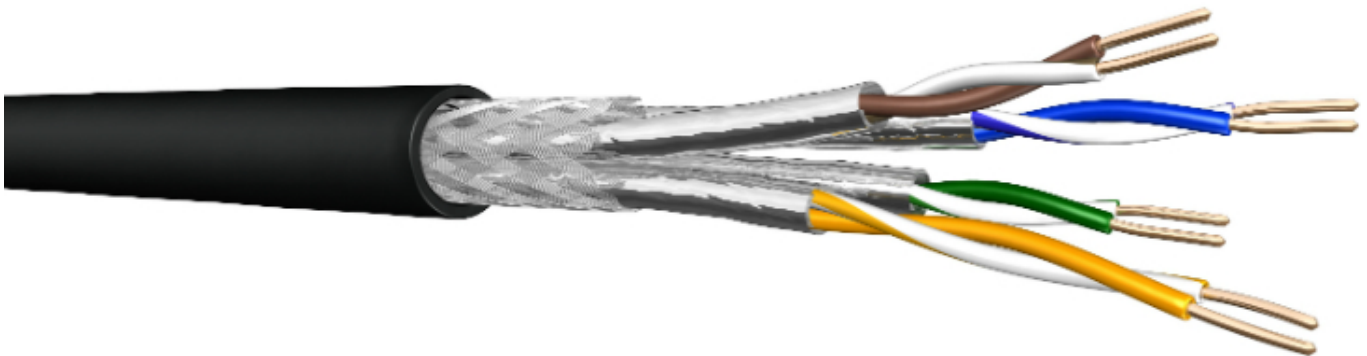


Draka - UC900 SS23 Cat.7 S/FTP, PE for industrial applications



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

Application

Primary (Campus), Secondary (Riser), Tertiary (Horizontal)
IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T; 10GBase-T
IEEE 802.5 16 MB; ISDN; TPDDI; ATM

Power over Ethernet (PoE) / PoE+

Standards

EN 50173-1; EN 50288-4-1
ISO/IEC 11801; IEC 61156-5



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Draka - UC900 SS23 Cat.7 S/FTP, PE for industrial applications

Technical Data

Construction

Conductor	bare copper wire, Ø 0.56 mm (AWG 23)
Insulation	Foamskin PE, Ø 1.4 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
Protective jacket	PE, black, for outdoor installation

Mechanical properties

Bending radius	without load	≥ 40 mm
	with load	≥ 80 mm
Temperature range	during operation	-55°C to + 60°C
	during installation	-20°C to + 50°C

Electrical properties at 20°C ± 5°C

Loop resistance		≤ 165 Ω/km
Resistance unbalance		≤ 2%
Insulation resistance	(500V)	≥ 5000 MΩ*km
Mutual capacitance	at 800 Hz	Nom. 43 nF/km
Capacitance unbalance	(pair/ground)	≤ 1500 pF/km
Mean characteristic impedance	(1-100) MHz	(100 ± 5) 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		≤ 12ns/100m
Test voltage	(DC, 1 min) core/core and core/screen	1000 V
Transfer impedance	at 1 MHz	12 mΩ/m
	at 10 MHz	10 mΩ/m
	at 30 MHz	30 mΩ/m
	at 100 MHz	60 mΩ/m
Coupling attenuation		85 dB

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Electrical data (nominal) acc. to Cat.7 (at 20°C)

F	Attenuation	NEXT	PS-NEXT	ACR	PS-ACR	ELFEXT	PS-ELFEXT	Return loss
MHZ	dB/100m	dB	dB	dB/100m	dB/100m	dB/100m	dB/100m	dB
1.0	1.8	100	97	98	95	105	105	-
4.0	3.4	100	97	97	94	105	102	27
10.0	5.4	100	97	95	92	97	94	30
16.0	6.8	100	97	93	90	93	90	30
20.0	7.7	100	97	92	89	91	88	30
31.2	9.6	100	97	90	87	87	84	30
62.5	13.7	100	97	86	83	81	78	30
100.0	17.4	100	97	83	80	77	74	30
125.0	19.5	95	92	75	72	75	72	26
155.5	21.9	94	91	72	69	73	70	26
175.0	23.3	93	90	70	67	72	69	25
200.0	25.0	92	89	67	64	71	68	25
250.0	28.1	90	87	62	59	69	66	24
300.0	30.9	89	86	58	55	67	64	24
450.0	38.3	87	84	48	45	64	61	23
600.0	44.8	85	82	40	37	61	58	22
750.0	52.0	83	80	31	28	59	56	21
900.0	59.4	82	79	23	20	58	55	20
1000.0	63.1	80	77	17	14	57	54	20

Outer diameter	7.9 mm
Weight	95 kg/km
Copper content	38
Tensile force	340 N

Product variants & accessories

Art.-No.	Description
UC900-SS23-4P-PE	Draka - UC900 SS23 Cat.7 S/FTP, PE for industrial applications