

Draka - UC FUTURE COMPACT AWG23 Cat.7 S/FTP 8x4P LSHF



UC FUTURE - Draka Datacom Solution

The solution for Data Centre cabling. A dependable, fast and always available part of Draka Datacom Solution!

For this application Draka has developed the new UCFuture program which contains slim cable designs based on existing work area cable standards, which are perfect for zone cabling in data centres because of these characteristics:

- Up to 100% higher packing density in cable trays
- Fully compliant with established cable standards
- PIMF design to eliminate any Alien-Xtalk interferences
- Full 10GBase-T performance over a channel distance of 70m

Data centre cabling 10Gbit solution. Pair screened 100 Ohms cable especially for Zone Distribution Area and Equipment Distribution Area.



tde[®] trans data elektronik GmbH

Headquarter address:

Lingener Str. 2
D-49626 Bippen/Ohrte
Tel.: +49 5435 9511 0
Fax.: +49 5435 9511 32

Sales office address:

Prinz-Friedrich-Karl-Str. 46
D-44135 Dortmund
Tel.: +49 231 914 36 99
Fax.: +49 231 914 31 29

info@tde.de | www.tde.de

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Technical Data

Application

IEEE 802.3: 10Base-T; 100Base-T; 10GBase-T, ISDN; xDSL

IEEE 802.5 16 MB; ISDN; TPDDI; ATM155Mbit/s

The conductor diameter is smaller compared to the standard installation cables. This leads to an increased attenuation and therefore the operating distance is reduced (80 m instead of 90 m installation cable in standard permanent link).

Standards

ISO/IEC 11801 2nd ed.

EN 50173-5

IEC 61156-5

EN 50288-4-1

Flame resistance

LSHF (FRNC): IEC 60332-1; IEC 60754-2; IEC 61034; EN50399: Class E_{ca}

Construction

Conductor	Bare copper wire, Ø 0.56 mm (AWG23)
Insulation	Foam-skin PP, Ø 1.35 mm
Twisting	2 cores to the pair
Pair screening	Al-laminated plastic foil
Cable lay up	4x pimf to the core
Cable Screen	Tinned copper braid, coverage approx. 35%
Sheath	LSHF, orange RAL 2003
Stranding	8 stranded to the cable core, filler in the centre

Mechanical properties

Minimum bending radius	Without load	200 mm
	With load	100 mm
Temperature range	During operation	-20°C up to +60°C
	During installation	0°C up to +50°C

Electrical properties at 20°C

Loop resistance		≤ 176 Ω/km
Resistance unbalance		≤ 2%
Insulation resistance	500 V	≥ 2000 MΩ*km
Mutual Capacitance	at 800 Hz	Nom. 43 nF/km
Capacitance unbalance	(pair/ground)	≤ 1500 pF/km
Impedance	100 MHz	100 Ω± 5 Ω
Nominal velocity of propagation		Ca. 79%

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Propagation delay	Nominal	< 450 ns/100m
Delay skew	Nominal	< 15 ns/100m
Nominal velocity of propagation		ca. 79%
Test voltage	(DC, 1 min) core/core and core/screen	1000 V
Coupling attenuation		≥ 85 dB

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/90m	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
400.0	38.3	87	84	48	45	64	61	23
500.0	43.0	86	83	43	40	61	58	22
600.0	44.8	85	82	40	37	60	57	22

Technical Data

Designation	J-02YS(ST)CHH
Type	8x(4x2x0.56)
Outer diameter	27.1 mm
Fire load	6640 MJ/km
Fire load	1.845 kWh/m
Weight	581 kg/km
Copper content	217 kg/km
Tensile force	1200 N

Product variants & accessories

Art.-No.	Description
UC-COMPACT23X8x4P	Draka - UC FUTURE COMPACT AWG23 Cat.7 S/FTP 8x4P LSHF