

Description

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.

Technical Data

Construction

Type	UC FUTURE COMPACT AWG26/1 Cat.7 S/FTP 24P
Conductor	Bare copper wire, diameter 0.4 mm (AWG26)
Insulation	Foam-skin PP, diameter 1.0 mm
Twisting	2 insulated wires to the pair
Pair screening	Pet-Al foil around each pair
Stranding	6 (5+1) bundles with 4 foiled pairs blue, orange, green, brown
	Coloured tapes are around each bundle
Screen	Tinned copper braid 85% coverage
Sheath	LSHF-FR, diameter 13.9 mm

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 (60m instead of 90m installation cable in standard permanent link).

Standards

IEC 61156-6 work area cable

Draka - UC FUTURE COMPACT AWG26 Cat.7 S/FTP 24P LSHF-FR

ISO/IEC 11801 2nd ed.
EN 50173-5
EN 50288-4-2

Flame resistance

PVC IEC 60332-1
LSHF-FR IEC 60332-3-24; IEC 60754-2; IEC 61034 ; EN 50399 Class D_{ca}

Mechanical properties

Minimum bending radius	Without load	≥ 55 mm
	With load	≥ 110 mm
Temperature range	During operation	-20°C up to +60°C
	During installation	10°C up to +40°C

Electrical properties at 20°C

Loop resistance		≤ 280 Ω/km
Resistance unbalance		≤ 2%
Test voltage	core/core	1000 V _{DC} 1 min
	core/screen	1000 V _{DC} 1 min
Capacitance	800 Hz	Nom. 44 nF/km
Capacitance unbalance		≤ 1600 pF/km
Impedance	100 MHz	100 Ω ± 5 Ω
Nominal velocity of propagation		ca. 76%
Insulation resistance	500 V	≥ 2000 MΩkm
Transfer impedance	at 1 MHz	≤ 5 mΩ /m
	at 10 MHz	≤ 5 mΩ /m
	at 30 MHz	≤ 10 mΩ /m

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

F	Attenuation	NEXT	PS-NEXT	ELFEXT	PS-ELFEXT	Return loss
MHZ	dB/10m	dB	dB	dB/100m	dB/100m	dB
1.0	0.3	90	87	80	77	23
4.0	0.6	90	87	80	77	24
10.0	1.0	90	87	80	77	25
16.0	1.3	90	87	76	73	25

20.0	1.4	90	87	74	71	25
31.2	1.8	90	87	70	67	25
62.5	2.6	90	87	64	61	23
100.0	3.2	87	84	60	57	21
125.0	3.6	85	82	58	55	20
155.5	4.0	84	81	56	53	19
175.0	4.3	83	80	55	52	19
200.0	4.6	82	79	54	51	18
250.0	5.1	81	78	52	49	18
300.0	5.6	80	77	50	47	17
450.0	6.9	77	74	47	44	17
600.0	7.9	75	72	44	41	17

Technical Data

Designation	J-02YS(ST)CH
Type	24x2x0.4PiMF
Outer diameter	13.9 mm
Fire load	2.171 MJ/km
Fire load	0.603 kWh/m
Reaction to Fire	D _{Ca} -s2, d2, a1
Weight	230 kg/km
Copper content	115 kg/km
Tensile force	500 N

Art.-No.	Description
UC-COMPACT26X24P	Draka - UC FUTURE COMPACT AWG26 Cat.7 S/FTP 24P LSHF-FR