



UC^{FIBRE™} I B N LSHF-FR ES9 2.0

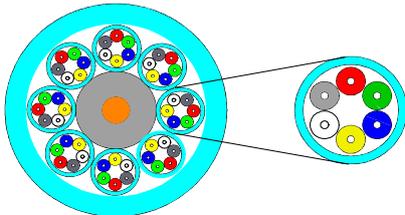
ES9 Improved tight buffer, 24 -96 fibre, 6 fibre units, aramid yarns, FireRes® sheath

DIN/VDE J-V(ZN)HH

NO

FR COMTFZ

DK



Application and Installation

This distribution or mini-break-out cable can be used for many indoor applications.

The cable features an improved tight buffer.

Typical cable applications include: LAN and WAN backbones, central office interconnections, backbones in data centres, and many other.

The cable is suited for installation in ducts and on trays.

The cable features an UV stabilised, water and moisture resistant FireRes® sheathing, the cable is thus well suited for shorter outdoor runs.

Standards

EN 187 000
IEC 60794-2
IEC 60794-2-20
ISO 11801 2nd edition
EN 501 73-1:2002

Construction

Strength member	FRP rod with LSZH covering	
Fibre	24 - 96	
Fibre unit	6 tightly buffered fibres 900 µm ± 50 µm	
	1	Red
	2	Green
	3	Blue
	4	Yellow
	5	White
	6	Grey
	Aramid yarns. Thin LSZH sheath in the same colours as the outer sheath, marked with unit number 1, 2, 3 .. Unit diameter app. 3.5 mm	
Stranding	5 – 16 fibre units in one or two layers	
Sheath colours	Cable with SM fibres	Yellow
	Cable with M5 fibres	Orange
	Cable with M6 fibres	Grey
	Cable with OM3 and OM4 fibres	Aqua
Sheath	LSHF-FR fire retardant, UV stabilised, EN 50290-2-27	

Note: The Draka policy of continuous improvement may cause in changed specifications without prior notice



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Fire rating

IEC 60332-1-2	Single vertical wire test
IEC 60332-3-24 = IEC 332-3C	Vertically-mounted bunched wires and cables
IEC 60754-1	No halogens
IEC 60754-2	No acid matters
IEC 61034-2	No dense smoke

Heat of combustion

24 – 30 fibres	2400 MJ/km	0.67 KWh/m
36 fibres	2850 MJ/km	0.76 KWh/m
42 fibres	3400 MJ/km	0.94 KWh/m
48 fibres	4000 MJ/km	1.11 KWh/m
54 fibres	4600MJ/km	1.28 KWh/m
60 fibres	5300 MJ/km	1.47 KWh/m
66 fibres	6100 MJ/km	1.69 KWh/m
72 fibres	6800 MJ/km	1.89 KWh/m
78 – 96 fibres	5900 MJ/km	1.64 KWh/m

Physical properties

IEC 60974-1-2

	E1	Permanent tensile strength	Short term tensile strength (some days)	Maximum installation load (a few hours)
24 – 30 fibres		1100 N	2200 N	3300 N
36 fibres		1200 N	2400 N	3600 N
42 fibres		1300 N	2600 N	3900 N
48 fibres		1400 N	2800 N	4200 N
54 fibres		1500 N	3000 N	4500 N
60 fibres		1600 N	3200 N	4800 N
66 fibres		1700 N	3400 N	5100 N
72 fibres		1800 N	3600 N	5400 N
78 – 96 fibres		2200 N	4400 N	6600 N
Impact	E4	20 J		
Crush (compressive strength)	E3	3000 N/ 100 mm		
Torsion	E7	5 cycles ± 1 turn		
Temperature range	F1	Operation and Installation	-40 °C to 70 °C	
		Storage	-40 °C to 70 °C	

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Mechanical properties

	Nominal diameter	Nominal cable weight	Minimum bending radius
24 – 30 fibres	12 mm	150 kg/km	150 mm
36 fibres	12.5 mm	165 kg/km	150 mm
42 fibres	14 mm	200 kg/km	150 mm
48 fibres	14.5 mm	230 kg/km	150 mm
54 fibres	16 mm	260 kg/km	200 mm
60 fibres	17 mm	300 kg/km	200 mm
66 fibres	19 mm	340 kg/km	200 mm
72 fibres	20 mm	375 kg/km	200 mm
78 – 96 fibres	19 mm	325 kg/km	200 mm

Product codes – ordering information

Item No.	Fibre count	Product code	Fibre type	Fibre data sheet
o. request	48	UC ^{FIBRE™} I B N LSHF-FR T 2.0 48 SM2D	OS2 Single mode	C03e

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