

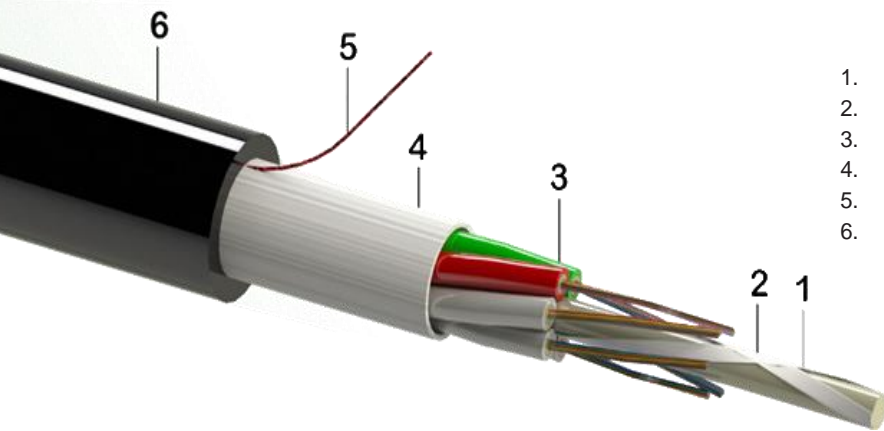
All-dielectric Duct Cables

Cable construction code

UT.x1,7F xx.yy.zz.c

DIN code

J/A-DQ(ZN)H nx1,7



1. FRP central strength member
2. Water swell-able yarn
3. Gel filled PBT loose tube with optical fibers
4. Water swell-able tape or e-glass yarn
5. Rip-cord
6. FRLSZH UV stable outer jacket

Cable general description

Multi-loose-tube non-metallic cable for indoor or outdoor duct installation.

Construction and dimensions	UT6x1,7F	UT8x1,7F	UT3x1,7F	UT9x1,7F
Max. fibre count (12 fibres/tube)	72	96	144	216
Loose-tubes count	6	8	12	18(6+12) - two layers
Loose tube nominal diameter (mm)	1,7	1,7	1,7	1,7
FRP/coat. CSM nominal thickness (mm)	1,7	2,8	2,5/5,0	1,7
Outer jacket nominal thickness (mm)	1,2	1,2	1,2	1,2
Cable nominal outer diameter (mm)	7,8	9,5	11,7	11,8
Cable informative weight (kg/km)	70	90	130	135
Standard put-up length (m)	2100/4100 ± 5%	2100/4100 ± 5%	2100/4100 ± 5%	2100/4100 ± 5%

Outer jacket

Material	UV stable FRLSZH
Jacket colour	Black. Other colours available on request
Sheath marking	Ink-Jet, white or black depending on the jacket colour
Print legend	Trademark, construction name, cable type, batch-number, meter-marking, CE marking Customer print legend available on request

Optical fibers

Colour coding (IEC 60304)	1.-12.: red, green, blue, yellow, white, grey, brown, violet, turquoise, black, orange, pink
Loose-tube colour coding	1.red, 2.green (in each layer), rest of tubes white (fillers uncoloured or black)
Fiber type	Single- and multi-mode fibers (OS2, OM1, OM2, OM3, OM4)

Geometrical and transmission parameters are available at separate generic datasheet

All-dielectric Duct Cables

**Mechanical characteristics**

Test	Test method	Value	Acceptance criteria*				
			UT6x	UT8x	UT3x	UT9x	
Tensile performance	IEC 60794-1-21:E1	long term	800 N	800 N	800 N	800 N	$\Delta\alpha \leq 0,05$ dB $\Delta\alpha \leq 0,05$ dB after test
		short term	2000 N	2000 N	2000 N	2000 N	
Crush	IEC 60794-1-21:E3A	1000 N/100mm (long term) 2000 N/100mm (short term)	$\Delta\alpha \leq 0,05$ dB prior release, no damage $\Delta\alpha \leq 0,05$ dB after release, no damage				
Impact	IEC 60794-1-21:E4	10 Nm, 3 impacts, d=20 mm, R=300 mm	$\Delta\alpha \leq 0,05$ dB after test, no damage				
Repeated bending	IEC 60794-1-21:E6	R=20 x cable diameter, 25 cycles	no damage				
Torsion	IEC 60794-1-21:E7	L=1 m, rotation angle $\pm 180^\circ$ , 10 cycles	no damage				
Bend	IEC 60794-1-21:E11A	d=20 x cable diameter, 4 turns, 3 cycles	$\Delta\alpha \leq 0,05$ dB after test, no damage				

**Environmental characteristic**

Test	Test method	Value	Acceptance criteria*
Temperature cycling	IEC 60794-1-22:F1	-40°C ÷ 70°C	$\Delta\alpha \leq 0,05$ dB
Temperature range of use		-5°C ÷ 50°C	installation
		-40°C ÷ 70°C	operation
		-40°C ÷ 70°C	storage, transport
Moisture resistance	IEC 60794-1-22:F5B	L=3 m, 1 m water height, 24 h	no water leakage

\* IEC 60794-3-10, IEC 60794-3-11

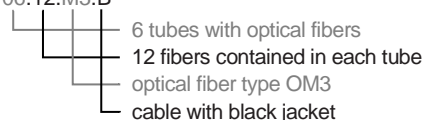
Cable expected lifetime / min. 30 years

**Fire performance**

Test	Test method	Result
Flammability - cable bundle	EN 60332-3-22 (cat.A)	Pass
Smoke density	EN 61034-1, EN 61034-2	Pass
Halogen Free, Acid gases	EN 60754-2	Pass
Euro classification to CPR	EN 50575, EN 13501-6	Eca

**Order information**

Order code e.g.: UT6x1,7F 06.12.M3.B



Detailed explanation of the FOC constructions coding found in the file *FOC coding*.