

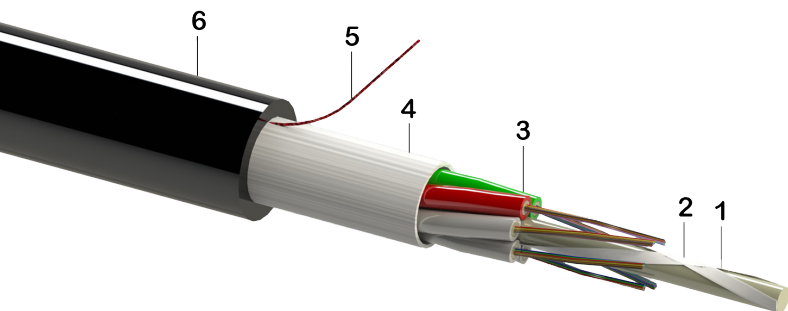
All-dielectric Duct Cables with improved rodent protection

Cable construction code

UT.x2,3GF xx.yy.zz.c

DIN code

J/A-DQ(BN)H wbg nx2,3



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

Cable general description

Multi Loose Tube non-metallic cable with improved rodent protection for indoor or outdoor duct installation.

Construction and dimensions	OT6x2,3GF	OT8x2,3GF	OT3x2,3GF	OT9x2,3GF
Max. fiber count (12 fibers/tube)	72	96	144	216
Loose-tubes count	6	8	12	18(6+12)-two layers
Loose tube nominal diameter (mm)	2,3	2,3	2,3	2,3
FRP/coat. CSM nominal thickness (mm)	2,5	2,5 / 3,9	2,8 / 6,7	2,5
Outer jacket nominal thickness (mm)	1,4	1,4	1,4	1,4
Cable nominal outer diameter (mm)	11,0	12,5	15,3	15,7
Cable informative weight (kg/km)	120	150	220	230
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	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, OM2, OM3, OM4, OM5)

Geometrical and transmission parameters are available at separate generic datasheet

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Mechanical characteristics

Test	Test method	Value					Acceptance criteria*
			UT6x..	UT8x..	UT3x..	UT9x..	
Tensile performance	EN 60794-1-21:E1	long term	1100 N	1200 N	1500 N	1500 N	$\Delta\alpha \leq 0,05$ dB $\Delta\alpha \leq 0,05$ dB after test
		short term	3500 N	4000 N	5000 N	5000 N	
Crush	EN 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	EN 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	EN 60794-1-21:E6	R=20 x cable diameter, 25 cycles					no damage
Torsion	EN 60794-1-21:E7	L = 1 m, rotation angle $\pm 180^\circ$, 10 cycles					no damage
Bend no tension	EN 60794-1-21:E11A	R=15 x cable diameter, 4 turns, 3 cycles					$\Delta\alpha \leq 0,05$ dB after test, no damage

Environmental characteristics

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

* EN 60794-3-10, EN 60794-3-11

Fire performance

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

Cable expected lifetime / min. 30 years

Order information

Construction	Diameter	CPR	Fiber count		OM3	OM4	G652.D	G657.A1
UT6x2,3GF	Ø 11,0	Eca	4 x 8f	32f	04.08.M3.B	04.08.M4.B	04.08.S2.B	04.08.S7.B
			4 x 12f	48f	04.12.M3.B	04.12.M4.B	04.12.S2.B	04.12.S7.B
			6 x 6f	36f	06.06.M3.B	06.06.M4.B	06.06.S2.B	06.06.S7.B
			6 x 8f	48f	06.08.M3.B	06.08.M4.B	06.08.S2.B	06.08.S7.B
UT8x2,3GF	Ø 12,5	Eca	8 x 8f	64f	08.08.M3.B	08.08.M4.B	08.08.S2.B	08.08.S7.B
			8 x 12f	96f	08.12.M3.B	08.12.M4.B	08.12.S2.B	08.12.S7.B
UT3x2,3GF	Ø 15,3	Eca	12 x 8f	96f	12.08.M3.B	12.08.M4.B	12.08.S2.B	12.08.S7.B
			12 x 12f	144f	12.12.M3.B	12.12.M4.B	R851129	12.12.S7.B
UT9x2,3GF	Ø 15,7	Eca	18 x 6f	108f	18.06.M3.B	18.06.M4.B	18.06.S2.B	18.06.S7.B
			18 x 8f	144f	18.08.M3.B	18.08.M4.B	18.08.S2.B	18.08.S7.B
			18 x 12f	216f	18.12.M3.B	18.12.M4.B	18.12.S2.B	18.12.S7.B

Order code e.g.: UT8x2,3GF 08.08.M3.B (see page 136/137)

Other fiber counts and/or fiber types (e.g. G657.A2) on special request