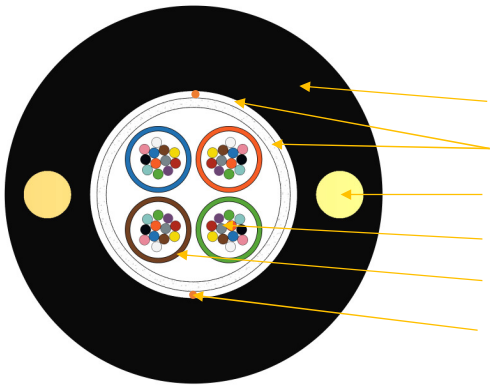
Single HDPE jacket duct cable with Easy Section Modules™
MDC-FM *(modulo 12)*



*schematic drawing of 48F configuration, not to scale

APPLICATION:

Duct cable
FTTH access networks
Fully dielectric

DESIGN:

Highly resistant, UV stabilized HDPE outer sheath
1,3mm ESM™ modules with 12 fibres each
Dry design, no filling compound inside ESM™
Water swellable and tensile strength elements
FRP rods embedded into outer jacket as a strength and anti-buckling elements
Polyester ripcord, two pieces on opposite sides

DESIGNS:

Variant	Quantity [pcs]				Ø nominal (typ. ±0,3)	Nominal weight (±10%)	Max allowed tension	Max static tension
	Fibres	Fibres per module	Total elements	Active modules	[mm]	[kg/km]	[N]	[N]
1M x 12F	12	12	1	1	5,9 (max 6,4)	30	800	400
2M x 12F	24	12	2	2	7,0 (max 7,5)	40	800	400
3M x 12F	36	12	3	3	7,2 (max 7,7)	42	800	400
4M x 12F	48	12	4	4	7,9 (max 8,4)	49	1000	500
6M x 12F	72	12	6	6	9,0 (max 9,5)	55	1600	800
8M x 12F	96	12	8	8	10,2 (max 10,7)	85	1800	900
12M x 12F	144	12	12	12	11,2 (max 11,7)	110	2200	1100
16M x 12F	192	12	16	16	13,0 (max 13,5)	140	2300	1100
18M x 12F	216	12	18	18	14,0 (max 14,5)	155	2500	1200
24M x 12F	288	12	24	24	14,5 (max 15,0)	147	2700	1300
Other variants, designs, mechanical and environmental properties available on demand								

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Bending performance:	15 x D (10 cycles)	IEC 60794-1-21-E6, Δα reversible
Temperature range:		IEC 60794-1-22-F1,
Installation	-5... +40 [℃]	
Operation	-30… +60 [℃]	Δα≤0,1 dB/km
Transport & Storage	-40… +70 [℃]	Δα reversible

Test	Specification	Method	Requirements
Tensile strength	IEC60794-1-21 Method E1	**Mandrel diameter**: ≥ 30 x OD **Load**: as provided in table above	**Fibre strain:** < 0.5%(during test) ≤ 0.05%(after test) Δα reversible (after test)
		Mandrel diameter: ≥ 30 x OD **Sustained Load**: as provided in table above	**Fibre strain:** ≤ 0.25%
Crush resistance	IEC60794-1-21 Method E3	**Load:** 2000 N / 10 cm / 5 minutes **Plate size:** 100 mm x 100mm **Number of pts**: 3 (500mm apart)	Δα ≤ 0.05dB @ 1550nm (after test) No jacket cracking and fibre breakage
Impact resistance	IEC60794-1-21 Method E4	**Impact energy**: 5J **Radius**: 300 mm **Distance**: 1m **No. of impacts**: 3 at different points 500mm apart	Δα≤0.1dB @ 1550nm (after test) No jacket cracking and fibre breakage
Torsion	IEC60794-1-21 Method E7	**Cable length to be twisted:** 1m **No. of cycles:** 5 **Twist angle:** ± 180° **Load:** 50N	Δα≤0.1dB @ 1550nm (after test) No jacket cracking and fibre breakage
Bending	IEC60794-1-21 Method E11	**Mandrel radius**: 12 x OD / 5 turns (wrapped and unwrapped) / 10 flexing cycles *All fibres to be monitored*	Δα≤0.05dB @ 1550nm (after test) No jacket cracking and fibre breakage
Water penetration	IEC 60794-1-22 Method F5B	**Water head**: 1m **Sample length**: 3m (3 samples of each cable) **Time**: 24 hrs	No water leakage

OPTICAL FIBRE AND LOOSE TUBES COLOUR IDENTIFICATION

For optical fibres and loose tube identification information please see DSH_Colors_CODE_XXXX document.

FIBRE PARAMETERS

For selected post-production optical fibres parameters please see DSH_OFP document.

MARKING

The following print (hot stamped, laser or other suitable printing method) is applied at 1-meter intervals:

[length] [GIGAMEDIA 288FO 12F/T G657A2 EXTER PE] [week/year]

Example:
0001m GIGAMEDIA 288FO 12F/T G657A2 EXTER PE 09/2019

The accuracy of marking is ±0,5%. Remarking is in accordance with Bellcore GR 20 and supersedes earlier markings. Occasional loss of marking is possible. Cables can be supplied with a range of single mode or multimode fibres and customized print.

PACKING

Cables will be shipped on disposable wooden or treated wooden drums. Both ends of the cable will be capped and accessible for testing. Identification information will be placed on the drum.

DELIVERY LENGTH

Cable length on one reel is 4000m ±5%. Can be changed upon arrangement and it depends on fibre count.