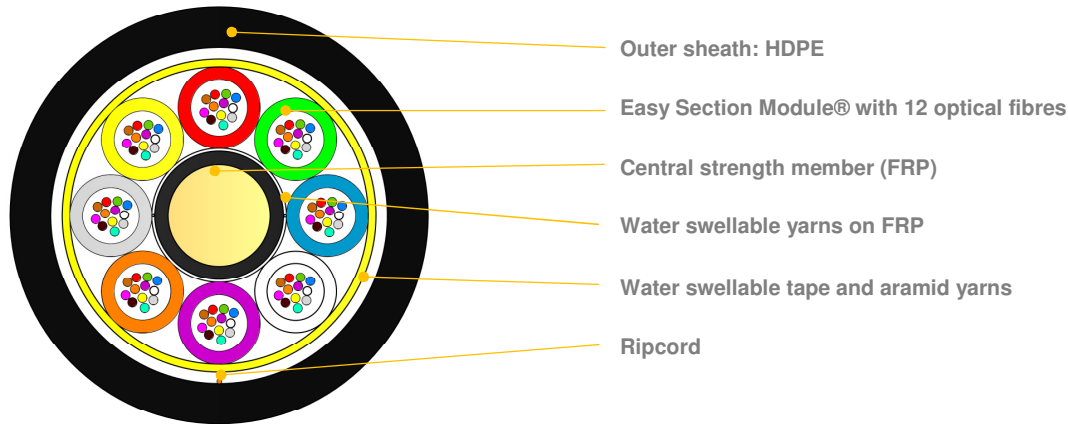


## Single HDPE jacket ESM™ module microcable with aramid yarns and FRP rod reinforcement MK-FM7 PE



\*Schematic drawing, not to scale

### CABLE DESIGNS

Variant	Quantity [pcs]				Ø nominal (±0,2) [mm]	Nominal weight (±10%) [kg/km]
	Fibres	Fibres per tube	Total elements	Active tubes		
8T x 12F	96	12	8	8	6.3	40

### APPLICATION

Temperature range	Transport & storage:	- 40 to + 70 °C	Minimum Bending Radius	
	Installation:	- 15 to + 60 °C		Under tension: 20 x cable Ø
	Operation:	- 30 to + 70 °C		Without tension: 15 x cable Ø

### MAIN MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Test	Test Standard	Specified Value	Requirement
Max allowed tension	IEC 60794-1-21-E1	900 N	$\Delta\epsilon \leq 0.33\%$ , $\Delta\alpha$ reversible
Max long term tension	IEC 60794-1-21-E1	100 N	$\Delta\epsilon \leq 0.05\%$ , $\Delta\alpha \leq 0.05$ dB/km
Crush	IEC 60794-1-21-E3	300 N / 100 mm, max. 15 min	$\Delta\alpha \leq 0.1$ dB, no significant damage
Impact	IEC 60794-1-21-E4	5 Nm, 3 impacts, R= 300 mm	$\Delta\alpha \leq 0.1$ dB, no significant damage
Torsion	IEC 60794-1-21-E7	100N, $\pm 180^\circ$ , 10 cycles	$\Delta\alpha \leq 0.1$ dB, no significant damage
Repeated bending	IEC 60794-1-21-E6	R=20 x D, 50N, 35 cycles	$\Delta\alpha \leq 0.1$ dB, no significant damage
Cable bend	IEC 60794-1-21-E11	R=15 x D, 5 turns, 2 cycles	$\Delta\alpha \leq 0.1$ dB, no significant damage
Temperature cycling	IEC 60794-1-22-F1	-30 °C to +70 °C -40 °C to +70 °C	$\Delta\alpha \leq 0.1$ dB/km $\Delta\alpha$ reversible

(\*) values for single-mode fibres, all optical measurements performed at @1550nm

### OPTICAL FIBRES AND LOOSE TUBES COLOUR IDENTIFICATION

For optical fibres and modules identification information please see **DSH\_Colors\_CODE\_XXXX** document.

### FIBRES PARAMETERS

For selected post-production optical fibres parameters please see **DSH\_OFP** document.

### MARKING

The following print (ink jet, laser or other suitable method depending on availability) is applied at 1-meter intervals:

- Supplier: FIBRAIN
- Standard code (product type, fibre type, fibre count)
- Year of manufacture: xxxx
- Length marking in meters
- Cable ID / Drum No

Example: FIBRAIN METROJET MK-FM7 96F SM G652D 8M12F "YEAR OF MANUFACTURE" "LASER SYMBOL" "LENGTH MARKING" "BATCH NUMBER"

Type:	MK-FM7-PE	REV: 1.6
Issued:	27/03/2020	PB
Modified:	23/12/2020	AM
Status:	RTM	

The accuracy of marking is  $\pm 0,5\%$ . 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 label will be placed on the drum.

#### DELIVERY LENGTH

2000 – 6000 meters  $\pm 5\%$ , with possibility of supplying up to 5% of total contract quantity as short length cables which should be above 1000 meters long. Tolerance of 5 % of order quantity shall be allowed.

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