

Туре:	MK-FM6-PE	REV: 1.4
Issued:	27/03/2020	WW
Project:	23/12/2020	AM
Status:	RTM	

Single HDPE jacket ESM[™] module microcable with aramid yarns and FRP rod reinforcement MK-FM6 PE



*Schematic drawing, not to scale

CABLE DESIGNS

Variant	Quantity [pcs]				Ø nominal	Nominal weight
	FIDRAS	Fibres per	Total	Active tubes	(±5%)	(±10%)
		tube	elements		[mm]	[kg/km]
1-6T x 12F	12-72	12	6	1-6	6,0	30

APPLICATION

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

MAIN MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Test	Test Standard	Specified Value	Requirement
Max allowed tension	IEC 60794-1-21-E1	650 N	$\Delta \epsilon_{f} \leq 0.33\%$, $\Delta \alpha$ reversible
Max operating tension	IEC 60794-1-21-E1	150 N	$\Delta \epsilon_{f} \leq 0.05\%$, $\Delta \alpha \leq 0.05 \text{ dB/km}$
Crush	IEC 60794-1-21-E3	400 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, ± 180°, 10 cycles	$\Delta \alpha \leq 0.1$ dB, no significant damage
Repeated bending	IEC 60794-1-21-E6	R=20x D, 100N, 35 cycles	$\Delta \alpha \leq 0.1$ dB, no significant damage
Cable bend	IEC 60794-1-21-E11	R=20x D, 4 turns, 3 cycles	$\Delta \alpha \leq$ 0.1 dB, no significant damage
Temperature cycling	IEC 60794-1-22-F1	-30 ℃ to +60 ℃ -40 ℃ to +70 ℃	$\Delta \alpha \leq 0.1 \text{ dB/km}$ $\Delta \alpha \text{ reversible}$

(*) 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-FM6 72F SM G652D 6T12F "YEAR OF MANUFACTURE" "LASER SYMBOL" "LENGTH MARKING" "BATCH NUMBER"



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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 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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