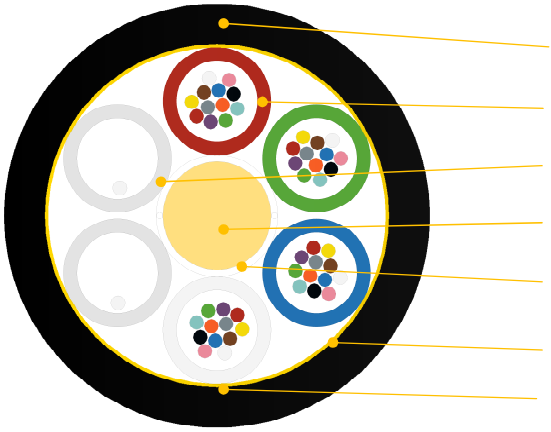
FIBRAIN® metrojet

MetroJET microduct cabling air-blowing system

Type:	Metrojet MK-LXS6	REV: 1.2
Issued:	11/02/2014	SK
Modified:	15/05/2017	PB

MetroJET MK-LXS6 - Multi loose tube microcable (up to 72F)



*Schematic drawing, not to scale

APPLICATION:

Microduct cabling air-blowing system application
Metro networks
Flexible network design
Distribution network

DESIGN:

HDPE, UV stabilized outer jacket with low coefficient of friction
Loose tubes (and fillers), SZ stranded around the FRP
Each PBT tube containing up to 12 optical fibres
Smallest outer diameter for blowing into 8mm (ID) ducts

CABLE DESIGNS:

Variant	Quantity [pcs]				Ø nominal (±5%)	Nominal weight (±10%)
	Fibres	Fibres per tube	Total elements	Active tubes	[mm]	[kg/km]
1-6T x 2F	2-12	2	6	1-6	5.3	18
1-6T x 4F	4-24	4	6	1-6	5.3	18
1-6T x 6F	6-36	6	6	1-6	5.3	18
1-6T x 8F	8-48	8	6	1-6	5.3	19
1-6T x 10F	10-60	10	6	1-6	5.3	19
1-6T x 12F	12-72	12	6	1-6	5.3	21

APPLICATION:					
Suggested duct - Ø (min)	16/12mm, 14/12mm, 12/10mm, 14/10mm, 12/8mm, 10/8mm				
Temperature range	Transport & Storage:	- 40 to + 70°C		**Minimum Bending Radius**	
	Installation:	- 15 to + 60°C		Under maximum tension:	20 x cable Ø
	Operation:	- 30 to + 70°C		Without tension:	10 x cable Ø

MAIN MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS (according to IEC 60794-5 and EN 187000)			
Test	**Test Standard**	**Specified Value**	**Requirement**
Max allowed tension	IEC 60794–1-2-E1	650 N	$\Delta\varepsilon_f \leq 0.33\%$, $\Delta\alpha$ reversible
Max operating tension	IEC 60794–1–2-E1	200 N	$\Delta\varepsilon_f \leq 0.05\%$, $\Delta\alpha \leq 0.05$ dB/km
Crush	IEC 60794–1–2-E3	500 N / 100 mm, max. 15 min	$\Delta\alpha \leq 0.05$ dB no damage, reversible
Impact	IEC 60794–1–2-E4	10 Nm, 3 impacts, R= 300 mm	$\Delta\alpha \leq 0.05$ dB after the test
Torsion	IEC 60794–1–2-E7	100N, ± 180°, 10 cycles	$\Delta\alpha \leq 0.05$ dB no damage
Repeated bending	IEC 60794–1–2-E6	R=20x D, 100N, 35 cycles	no damage
Cable bend	IEC 60794–1–2-E11	R=20x D, 4 turns, 3 cycles	$\Delta\alpha \leq 0.05$ dB no damage
Temperature cycling	IEC 60794–1–2-F1	-15°C to +60°C -40°C to +70°C	$\Delta\alpha \leq 0.05$ dB/km $\Delta\alpha \leq 0.10$ dB/km
Water penetration	IEC 60794–1–2-F5B	sample=3m, water column=1m, 24h	no water leakage

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

OPTICAL FIBRES AND LOOSE TUBES COLOUR IDENTIFICATION

Fibres and tubes identification information see **DSH_Colors_CODE_XXXX** document.

FIBRES PARAMETERS

Optical fibres parameters see **DSH_OFP** document.

MARKING

The following print (white / ink jet) 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: METROJET MK-LXS6 72F SM G652D 6T12F "YEAR OF MANUFACTURE" "LASER SYMBOL" "LENGTH MARKING" "BATCH NUMBER"

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 – 8000 meters ± 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.