Туре:	Metrojet MK-LXS7	REV: 1.6
Issued:	29/07/2015	PB
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# MetroJET MK-LXS7 - Multi loose tube microcable (up to 96F)



<sup>\*</sup>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 CSM Each PBT tube containing up to 12 optical fibres

### **CABLE DESIGNS:**

Variant		Quan	Ø nominal	Nominal		
	Fibres	Fibres per tube Total elements		Active tubes	(±5%)	weight (±10%)
	1 15103		Active tubes	[mm]	[kg/km]	
8T x 4F	32	4	8	8	6.2	28
8T x 6F	48	6	8	8	6.2	28
8T x 8F	64	8	8	8	6.2	29
8T x 10F	80	10	8	8	6.2	30
8T x 12F	96	12	8	8	6.2	31

APPLICATION:							
Suggested Duct - Ø (min	)	mm	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 + 55℃		Under Maximum Tension:	20 x cable Ø	
	Operation:		- 30 to + 60 °C		Without Tension:	10 x cable Ø	

MAIN MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS (according to IEC 60794-5)						
Test	Test Standard	Specified Value	Requirement*			
Max allowed tension	IEC 60794-1-21-E1	1200 N	$\Delta\epsilon_f \leq 0.33\%$ , $\Delta\alpha$ reversible			
Max operating tension	IEC 60794-1-21-E1	350 N	$\Delta\epsilon_{\text{f}} \leq 0.05\%,  \Delta\alpha \leq 0.05 \text{ dB/km}$			
Crush	IEC 60794-1-21-E3	500 N / 100 mm, max. 15 min	$\Delta\alpha$ reversible, no significant damage			
Impact	IEC 60794-1-21-E4	5Nm, 3 impacts, R= 300 mm	$\Delta \alpha \leq$ 0.05 dB after the test			
Torsion	IEC 60794-1-21-E7	100N, +/- 180°, 10 cycles	$\Delta \alpha \leq$ 0.05 dB, no damage			
Repeated Bending	IEC 60794-1-21-E6	R=20x D, 100N, 35 cycles	no damage			
Cable Bend	IEC 60794-1-21-E11	R=20x D, 4 turns, 3 cycles	$\Delta \alpha \le 0.05$ dB, no damage			
Temperature Cycling	IEC 60794-1-22-F1	-15 °C to +60 °C	$\Delta \alpha \leq 0.05 \text{ dB/km}$			
	1EC 60/94-1-22-F1	-30 °C to +70 °C	$\Delta \alpha \leq$ 0.10 dB/km			
Water Penetration	IEC 60794-1-22-F5B	sample=3m, water column=1m, 24h	no water leakage			

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

## **OPTICAL FIBRE AND LOOSE TUBES COLOUR IDENTIFICATION**

For optical fibres and loose tube identification information please see DSH\_Colors\_CODE\_XXXX document.



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### **FIBRE PARAMETERS**

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

### **MARKING**

The following print (inkjet / laser or other suitable method) 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-LXS7 96F SM G652D 8T12F "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  $\pm 5\%$ , 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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