Type:	AERO-AS03 T20	REV: 1.3
Issued:	01/01/2014	SK
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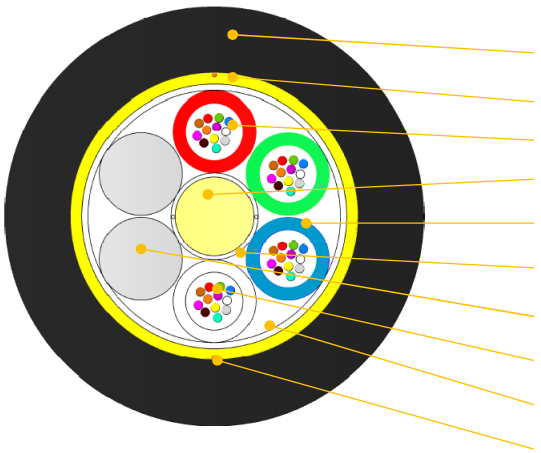
Single jacket multitube self-supporting aerial cable
AERO AS03



*schematic drawing, not to scale

APPLICATION:

For installation on poles or in ducts.
Fully dielectric cable
Self-supporting aerial cable with aramid reinforcement
For installation along power lines with an operation voltage below 150 kV and producing space potential below 4 kV.

DESIGN:

FRP strength and anti-buckling element
Dry yarns to prevent moisture into the cable
Loose tube (PBT Ø 2.0mm) with filing compound
6-12 elements SZ stranded cable core
Optical fibres
Fillers (if applicable)
Water-swellable tape
Aramid yarns as strain relief and water absorbent
UV stabilized PE sheath (black by default, other colours available)

CABLE DESIGNS:

Variant	Quantity [pcs]				Ø nominal (±5%)	Nominal weight (±10%)	Max allowed tension	Max static tension
	Fibres	Fibres per tube	Total elements	Active tubes	[mm]	[kg/km]	[N]	[N]
1-6T x 6F	6-36	6	6	1-6	10,0	75	3200	1800
1-6T x 12F	12-72	12	6	1-6	10,1	77	3100	1500
8T x 12F	96	12	8	8	11,3	100	3100	1500
12T x 12F	144	12	12	12	13,8	146	3100	1500
20-24 x 12F	240-288	12	24	20-24	16,4	194	3100	1500

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Crush performance:	2000 [N/10 cm]	IEC 60794-1-21-E3, Δα≤0,05 dB, reversible
Bending radius:	Static: 15 x D Dynamic: 20 x D	IEC 60794-1-21-E6, Δα≤0,05 dB, reversible
Water penetration:	3[m] sample, 1[m] head, 24[h]	IEC 60794-1-22-F5, no leakage
Temperature range		IEC 60794-1-22-F1, Δα≤0,05 dB/km
Installation:	-15... +55 [℃]	
Operation:	-40… +70 [℃]	
Transport & Storage:	-40… +70 [℃]	

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APPLICATION AND CABLE SPAN CHARACTERISTIC

6 tubes design:

Loading Conditions	Span	Installed Sag (2%)	Tension	Total sag	Horizontal sag	Vertical sag
	[m]	[m]	[N]	[m]	[m]	[m]
NSC Light	190	3.8	3100	7.9	7.6	2.3
NSC Medium	130	2.6	3100	5.8	3.6	4.5
NSC Heavy	75	1.5	3100	3.5	1.8	3.0

8 tubes design:

Loading Conditions	Span	Installed Sag (2%)	Tension	Total sag	Horizontal sag	Vertical sag
	[m]	[m]	[N]	[m]	[m]	[m]
NSC Light	170	3.4	3100	7.0	6.6	2.1
NSC Medium	120	2.4	3100	5.2	3.2	4.1
NSC Heavy	70	1.4	3100	3.2	1.6	2.8

12 tubes design:

Loading Conditions	Span	Installed Sag (2%)	Tension	Total sag	Horizontal sag	Vertical sag
	[m]	[m]	[N]	[m]	[m]	[m]
NSC Light	135	2.7	3100	5.4	5.1	1.7
NSC Medium	105	2.1	3100	4.2	2.7	3.5
NSC Heavy	60	1.2	3100	2.7	1.3	2.3

24 tubes design:

Loading Conditions	Span	Installed Sag (2%)	Tension	Total sag	Horizontal sag	Vertical sag
	[m]	[m]	[N]	[m]	[m]	[m]
NSC Light	120	2.4	3100	4.0	4.5	1.6
NSC Medium	100	2.0	3100	4.2	2.5	3.4
NSC Heavy	60	1.2	3100	2.7	1.3	2.4

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 (white / hot foil) 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 AERO AS03 T20 12F SM G652D 2T6F "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. Rotation direction arrow will be marked on the drum together with identification information.

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.

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