

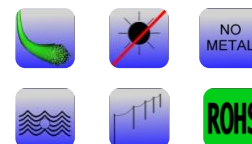
EE3A31G - SM/B1.3-AERIAL-D5,0

AERIAL CABLES WITH DIELECTRIC SUSPENSION STRAND OF 5,0 MM FRP



STANDARDS

TSC2 –Rev 2. Optical aerial cables
IEC 60794

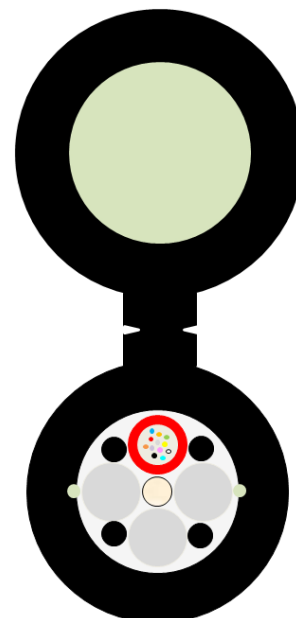


DESCRIPTION AND APPLICATION

Cables from 2 to 12 singlemode optical fibres, figure-8 FRP supporting member and PE sheath for aerial installations.

CONSTRUCTION

- Fibres:** Singlemode optical fibres according to ITU-T G.652D. Colour coding according to table 1.
- Tubes:** PBT loose tubes filled with thixotropic compound. Tube diameter 1,5mm.
- Optical Core:** Tubes stranded around a central FRP support element, with a lay length of 80mm. Optional fillers depending on the cable structure. Colour coding according to table 2.
- Outer sheath:**
UV resistant black polyethylene outer jacket.
Aerial Fig. 8 sheath with a 5 mm FRP as self-supporting element.
Two rip cords underneath the cable sheath. (180° opposite).
- Sheath marking:** The cable sheath will be marked at regular intervals, with hot-foil in white colour, with the following information:
Length markers / Year(YYYY)-Batch nº / Manufacturer / CPR Code / Telenor Code / Four



For G2 cables: XXXX / YYYY-NNNNN / CABLESCOM / CE CLASS Fca / FO/A-2/SM/B1.3-AERIAL-D5,0 / QXWE

For G12 cables: XXXX / YYYY-NNNNN / CABLESCOM / CE CLASS Fca / FO/A-12/SM/B1.3-AERIAL-D5,0 / QXWE

OPTICAL FIBER CHARACTERISTICS

The parameters of the optical fibres are compliant with the ITU-T G.652 recommendation and ,IEC 60793-2-50 [2].

PARAMETER	VALUE	UNITS
Ave./Max. Individual fibre Attenuation at 1310 nm (*)	≤0.33 / ≤0.34	dB/km
Ave./Max. Individual fibre Attenuation at 1550 nm (*)	≤0.20 / ≤0.21	dB/km
Ave./Max. Individual fibre Attenuation at 1625 nm (*)	≤0.21 / ≤0.22	dB/km
Max. Chromatic Dispersion at 1550 nm (nom/typ)	≤ 18.0 / ≤ 16.7	ps/nm·km
Max. Chromatic Dispersion at 1625 nm (nom/typ)	≤ 22 / ≤ 21	ps/nm·km
Polarization Mode Dispersion (PMD) (*)	0.1	ps/Vkm
Link Design Value (PMD _Q) (Q=0.01% , N=20))	< 0.06	ps/Vkm
Cut-off Wavelength (cabled fibre)	λ _{cc} ≤ 1260	nm
Mode Field Diameter at 1310 nm	8.8 ± 0.4	μm
Installation and Operation Fibre bending diameter	1 Turn	Ø 32mm

Cables de Comunicaciones Zaragoza, SL.

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Certified Company ISO 9001 – ISO 14001

All drawings, weights and dimensions details, as well as tube and fibre colours in this document are only indicative and must not be considered contractual.

TITLE
HP_EE3A31G

EDITION
3

APPROVED BY
O. Salomón

DATE
2017-09-19

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TABLE 1 : OPTICAL FIBRE COLOUR CODE

Fibre number	Colour	Fibre Number	Colour
1	White	7	Brown
2	Red	8	Black
3	Yellow	9	Violet
4	Green	10	Turquoise
5	Blue	11	Orange
6	Grey	12	Pink

TABLE 2 : LOOSE TUBE COLOUR CODE

Tube number	Tube Colour	Direction
1	Red	Green
2	Green	White
3	White	Next White
n	White	Next White

Filling elements, if any, shall be natural of colour

MECHANICAL REQUIREMENTS

Mechanical characteristics	Standard	Test conditions
Tensile strength ($\Delta\epsilon_f \leq 0,2\%$) (MIT)	IEC 60794-1-21 Met.1	4.5 kN
Maximum tensile strength ($\Delta\epsilon_f \leq 0,6\%$) (MAT)	IEC 60794-1-21 Met.1	7.5 kN
Minimum breaking tension	IEC 60794-1-21 Met.1	12,5 kN
Crush resistance	IEC 60794-1-21 Met. E3B	350 N/250 mm
Impact resistance	IEC 60794-1-21 Met. E4	3 J
Operating temperature cycling ($\Delta\alpha \leq 0,05\text{dB}$)	IEC 60794-1-22 Met. F1	-40°C / 70°C

OTHER CHARACTERISTICS

Characteristics	Test conditions
Cable bending diameter (with strand), Installation/Operation	25xCH / 25xCH
Cable bending diameter (without strand), Installation (no load)/Operation (load)	10xOD / 20xOD
Minimum bending diameter for Loose Tubes, Installation/Operation	30 mm
Installation temperature	-15°C/60°C
Operation Temperature	-40°C/70°C
Storage Temperature	-40°C/70°C

NOTE: CH = Cable height; OD = Cable Nominal Diameter

SIZE AND WEIGHT

Number of fibres	Cablescom Code	Number of fibres per tube	Cable Nominal diameter (mm)	Diameter over suspension strand (mm)	Cable height (mm)	Nominal weight (kg/km)
2	EE3A31G00000200N	2	7	7	16	115
12	EE3A31G00001200N	12	7	7	16	116

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