

1.3.2023

Product Datasheet

Fiber Optic Cable: A-DQ2Y

Blowing MT 12 PE 432 (36x12) G.657.A1 3000N Ø11.2mm (ANSI)

Order information

Design	Part number
Blowing MT 12 PE 432 (36x12) G.657.A1 3000N Ø11.2mm (ANSI)*	543270

* The design is preliminary; its technical parameters are subject to revision. The lead time for this design should be agreed separately.

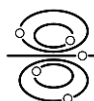
Product Pros



Cables are tested according to IEC 60794-1-21:2015



Tube inner diameter suitable for blowing



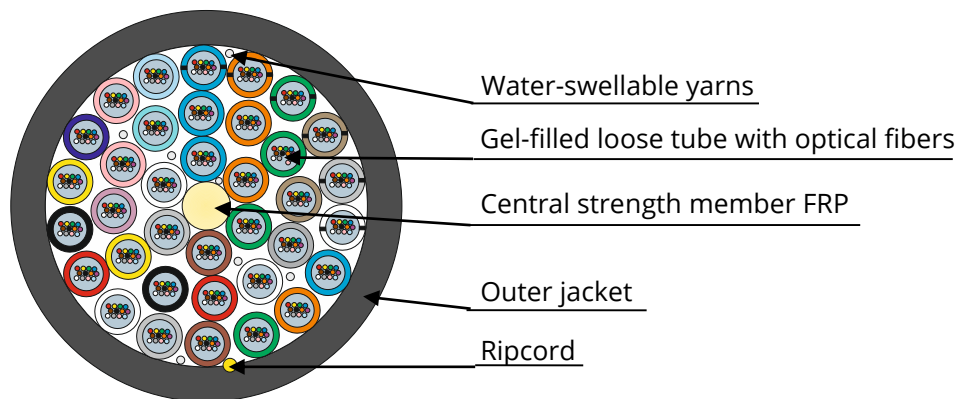
All-dielectric design



Tension:
installation 3000N
operation 1000 N

Application and design

- Blowing into microducts
- Installation into indoor/outdoor cable conduits and trays



Cable consists of stranded core with central strength member (FRP) and three layers of gel-filled loose tubes with optical fibers. Stranded core is fixed by water-swellable yarns. Outer jacket is made of HDPE. Ripcord is laid under the cable jacket. Color of outer jacket is black.

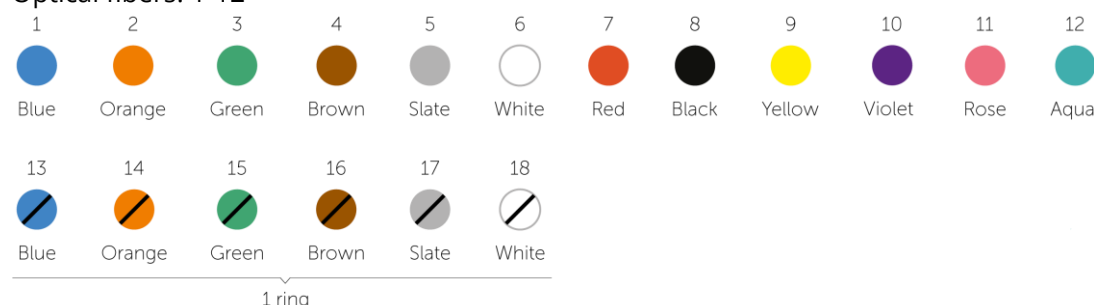
Color identification of loose tubes and optical fibers is according to ANSI/TIA-598-D-2014

Loose tubes 1st layer: 1-6

Loose tubes 2nd layer: 1-12

Loose tubes 3rd layer: 1-18

Optical fibers: 1-12



Other colors upon request

Cable marking example

Marking is made on each meter of cable

Fiber optic cable = INCAB EUROPE = Blowing MT 12 PE 432 36 x 12 G.657.A1 3000N Ø 11.2mm BATCH 2023 = 00001 m =

1 2 3 4 5 6 7 8 9 10 11

1	Cable name	7	Installation tension
2	Jacket type	8	Cable diameter
3	Fiber count	9	Batch number
4	Number of loose tubes	10	Year of production
5	Fibers per loose tube	11	Meter marking
6	Fiber type		

Design details

Fiber count	432
Number of loose tubes	36
Fibers per loose tube	12
Cable diameter ±0.2	mm 11.2
Cable weight	kg/km 67.7

Other designs upon request

Optical fiber

Fiber type	«G.657.A1»
Fiber brand	Corning® SMF 28®ULTRA
ITU-T Recommendation	G.657.A1

Dimensional Specifications

Core-Clad Concentricity	0.5 µm
Cladding Diameter	125 ±0.7 µm
Cladding Non-Circularity	0.7 %
Coating Diameter	242 ±5 µm

Transmission Specifications

Attenuation in the cable (dB/km)*:	
1310 nm wavelength (Typical** / Max.)	0.32 / 0.35
1550 nm wavelength (Typical** / Max.)	0.19 / 0.21

* Local attenuation discontinuities caused by cable winding on a reel are allowed.

** Typical attenuation is the real level of optical attenuation of at least 90% fibers after cabling.

Additional information about optical fibers on www.incabeurope.com

Operating parameters	
Operating temperature	-20°C...+70°C
Installation temperature	-20°C...+50°C
Transportation and storage temperature	-20°C...+70°C
Minimum bending radius	15 x cable diameter
Design life	25 years (per fiber supplier)

Cable parameters		
Parameter	Nominal value	
	Long term calc. OF strain ≤ 0.20 %	Short term calc. OF strain ≤ 0.60 %
Tensile strength (IEC 60794-1-21 method E1)	1.0 kN	3.0 kN
Crush (IEC 60794-1-21 method E3)	0.1 kN/cm	- $\Delta\alpha^* \leq 0.10$ dB - no damage
Repeated bending (IEC 60794-1-21 method E6)	20 cycles, bending radius $\pm 90^\circ$	
Torsion (IEC 60794-1-21 method E7)	- 10 cycles - torsion angle $\pm 360^\circ$ length 4 m	
Impact (IEC 60794-1-21 method E4)	Impact energy 5 J	
Water penetration (IEC 60794-1-22 method F5C)	Sample length: 3 m Testing time: 24 hours	No water at the cable end
Temperature cycling** (IEC 60794-1-22 method F1)	- temperature range from -20°C to 70°C - 2 cycles - cycle period ≥ 16 hours	$\Delta\alpha^* \leq 0.10$ dB/km
Compound flow (IEC 60794-1-21 method E14)	at 70°C	No dripped compound

* - attenuation increasing at standard wavelengths

** - other temperature range upon request

Safety standards compliance

RoHS: 2011/65/EU; 2015/863/EU	"Restriction on the use of certain Hazardous Substances"
REACH: 1907/2006/EU	"Registration, Evaluation, Authorisation and Restrictions of Chemicals"

Reel packing and marking

Cables are supplied on non-returnable wooden reels. Reel diameter is not less than 40 diameters of the cable. Not less than 2 m of inside end of the cable is fixed to the reel flange. The cable ends are sealed with waterproof covers.

The label on the outer reel flange contains our trademark, cable type, customer's name and PO, reel number, production date, cable length, cable weight net/gross.

The following information is printed on the reel flange: manufacturer's name and website, rotation direction, cable end indication, shipping and handling summary, labels "Fragile" and "Handle with care".

Our cable passport shows: cable type, technical standard number, cable length, fiber type, fiber coloring, fibers per tube, tube identification coloring, final attenuation for all fibers, refractive index of the fiber, fiber manufacturer and production date.

Cable passport is affixed to the inner flange in a plastic bag. Additional information can be included on the passport upon request.

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