

2.3.2023

## Product Datasheet

Fiber Optic Cable: A-DQ4Y

Blowing MT 12 PA 432 (36x12) G.657.A1 3000N Ø10.7mm (ANSI)

### Order information

Design	Part number
Blowing MT 12 PA 432 (36x12) G.657.A1 3000N Ø10.7mm (ANSI)*	561988

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

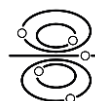
### Product Pros



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



Tube inner diameter suitable for blowing



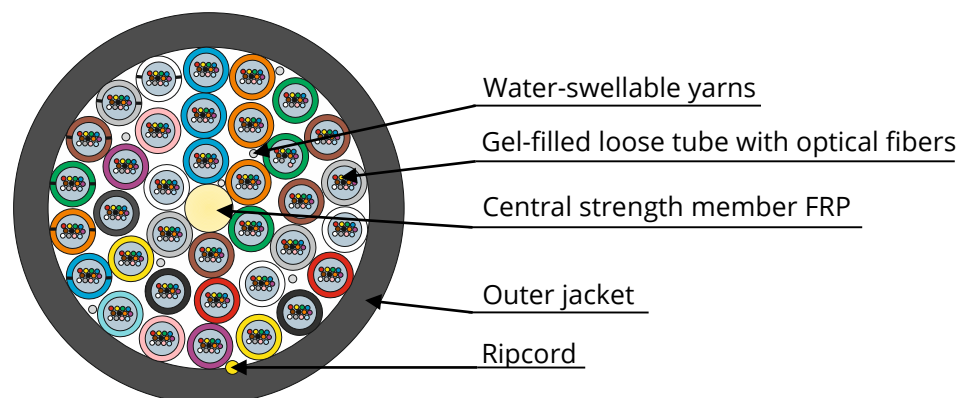
All-dielectric design



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 polyamide PA12. Ripcord is laid under the cable jacket. Color of outer jacket is black.

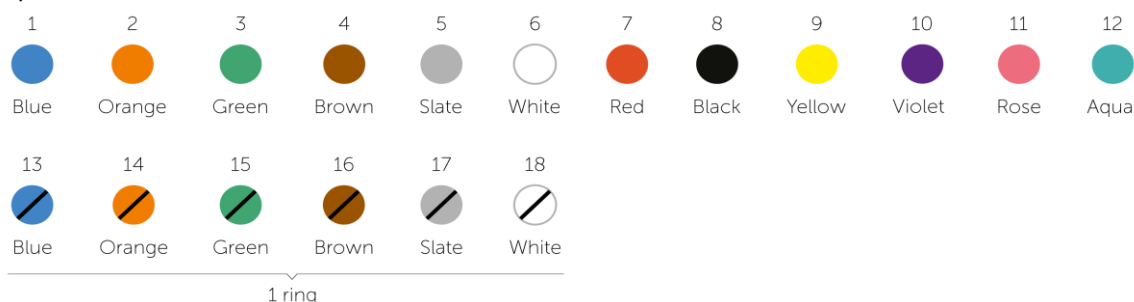
## Color identification of loose tubes and optical fibers is according to ANSI/TIA-598-D-2014

Loose tubes 1<sup>st</sup> layer: 1-6

Loose tubes 2<sup>nd</sup> layer: 1-12

Loose tubes 3<sup>rd</sup> 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 PA 432 36 x 12 G.657.A1 3000N Ø10.7mm 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
Number of PBT fillers		-
Cable diameter ±0.2	mm	10.7
Cable weight	kg/km	60.5

Other designs upon request

### 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)

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](http://www.incabeurope.com)

Cable parameters			
Parameter		Nominal value	Evaluation criterion
Tensile strength (IEC 60794-1-21 method E1)	Long term calc. OF strain ≤ 0.20 % 1.0 kN	Short term calc. OF strain ≤ 0.60 % 3.0 kN	- $\Delta\alpha^* \leq 0.10$ dB - no damage
Crush (IEC 60794-1-21 method E3)	0.1 kN/cm		
Repeated bending (IEC 60794-1-21 method E6)	20 cycles, bending radius ±90°		
Torsion (IEC 60794-1-21 method E7)	- 10 cycles - torsion angle ±360° 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.

---

This document is intended as a guide only. Whilst the information it contains is believed to be correct, Incab Europe can take no responsibility for actions taken based on the information contained in this document. Incab Europe reserves the right to make changes to this document without notice. All sales of product are subject to Incab Europe's terms and conditions of sale only, which can be found on Incab Europe's website [www.incabeurope.com](http://www.incabeurope.com). This document is protected by copyright (c) of Incab Europe. The products depicted are protected by intellectual property rights. Any unauthorized copying of this document or of our products is prohibited and Incab Europe will take action to prevent any infringement of its rights and to claim damages for the loss that it suffers.