

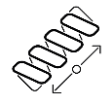
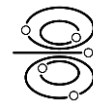
05.08.2020

**Product Datasheet**  
**Fiber Optic Cable: Blowing MT 12**  
A-DQ4Y G.652D+G.657.A1 250N Ø 4.5mm

**Order information**

Design	Part number
A-DQ4Y 12 (1x12) G.652D+G.657.A1 250N Ø 4.5mm	upon request
A-DQ4Y 24 (2x12) G.652D+G.657.A1 250N Ø 4.5mm	upon request
A-DQ4Y 36 (3x12) G.652D+G.657.A1 250N Ø 4.5mm	upon request
A-DQ4Y 48 (4x12) G.652D+G.657.A1 250N Ø 4.5mm	upon request
A-DQ4Y 72 (6x12) G.652D+G.657.A1 250N Ø 4.5mm	upon request

**Product Pros**



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

Blowing track: 2000 m  
Performance confirmed

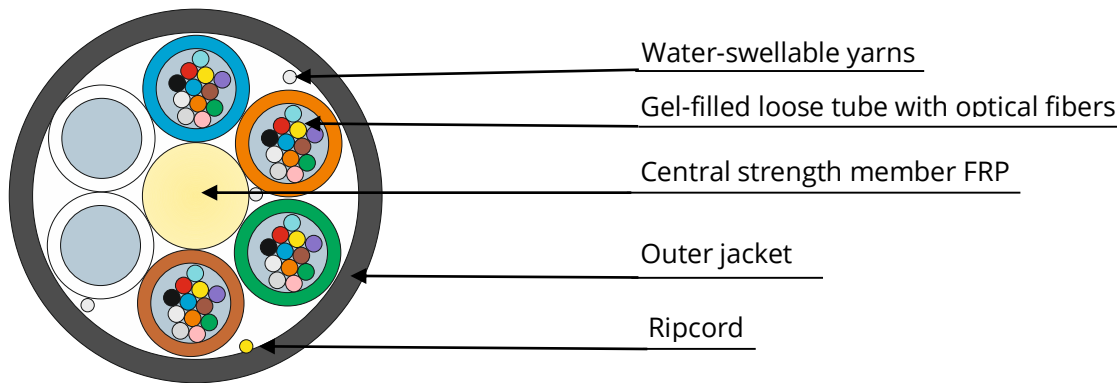
Tube inner diameter suitable for blowing

All-dielectric design

Tension: installation 750N  
operation 250N

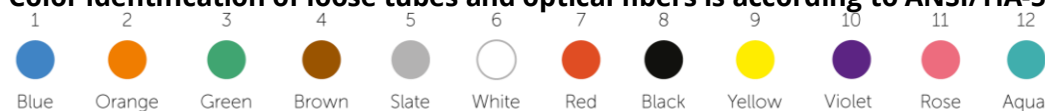
**Application and design**

For blowing in duct or micro duct.



Cable consists of stranded core with central strength member (FRP), gel-filled loose tubes with optical fibers. Stranded core is fixed by water-swellable yarns. Outer jacket is made of polyamide PA12. Color of outer jacket is black. Ripcord is laid under the cable jacket.

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



Other colors upon request

## Cable marking example

Marking is made on each meter of cable

Fiber optic cable	=	EMCAB	=	A-DQ4Y	48	4	x	12	G652.D+G.657.A1	250N	Ø 4.5mm	BATCH	2020	= 00001 m =
				1	2	3		4	5	6	7	8	9	10

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

## Design details

Fiber count	12	24	36	48	72
Number of loose tubes	1	2	3	4	6
Fibers per loose tube			12		
Number of PBT fillers	5	4	3	2	-
Cable diameter ±0.2	mm		4.5		
Cable weight	kg/km		13.6		

Other designs upon request

## Operating parameters

Operation temperature	-30°C...+70°C
Installation temperature	-30°C...+50°C
Transportation and storage temperature	-60°C...+70°C
Minimum bending radius	15 x cable diameter
Life time	25 years (per fiber supplier)

## Optical fiber

Fiber brand	Corning SMF 28®ULTRA 200
ITU-T Recommendation	G.652D + G.657.A1

### Dimensional Specifications

Core-Clad Concentricity	0.5 µm
Cladding Diameter	125 ±0.7 µm
Cladding Non-Circularity	0.7 %
Coating Diameter	200 ±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

\* Point discontinuity in attenuation associated with winding the cable on a drum 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.emcab.co](http://www.emcab.co)

## Blowing performance

Tube outer/inner diameter, mm	Installation distance, m
10/6	950
12/8	1700

## Cable parameters

Parameter	Nominal value		Evaluation criterion
Tensile strength (IEC 60794-1-21 method E1)	operation (fiber strain $\leq 0.2\%$ ) 250 N	installation (fiber strain $\leq 0.6\%$ ) 750 N	- $\Delta\alpha^* \leq 0.05$ dB after test - no damage
Crush (IEC 60794-1-21 method E3)	0.04 kN/cm		
Repeated bending (IEC 60794-1-21 method E6)	20 cycles, bending radius $\pm 90^\circ$		- $\Delta\alpha^* \leq 0.05$ dB
Torsion (IEC 60794-1-21 method E7)	- 10 cycles - torsion angle $\pm 360^\circ$ length 4 m		- no damage
Impact (IEC 60794-1-21 method E4)	Impact energy 2 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 $-30^\circ\text{C}$ to $70^\circ\text{C}$ - 2 cycles - cycle period $\geq 16$ hours		$\Delta\alpha^* \leq 0.10$ dB/km
Compound flow (IEC 60794-1-21 method E14)	at $70^\circ\text{C}$		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, Emcab can take no responsibility for actions taken based on the information contained in this document. Emcab reserves the right to make changes to this document without notice. All sales of product are subject to Emcab's terms and conditions of sale only, which can be found on Emcab's website [www.emcab.co](http://www.emcab.co). This document is protected by copyright (c) of Emcab GmbH. The products depicted are protected by intellectual property rights. Any unauthorized copying of this document or of our products is prohibited and Emcab GmbH will take action to prevent any infringement of its rights and to claim damages for the loss that it suffers.