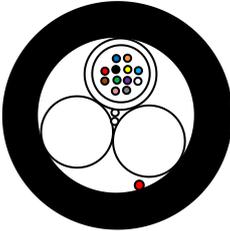


## 1. Application/Construction

Identification	GYQFHTCY-6/12 G.652D span 80m		
Application	Aerial installation cable		
Cross Section (not to scale)			
Configuration	<ul style="list-style-type: none"> <li>- Loose tubes with 6 or 12 optical fibers, filled with thixotropic compound</li> <li>- Strength member: FRP*2</li> <li>- Cable strand: dry, with water blocking yarns</li> <li>- Outer sheath: HDPE, black, anti-UV, one ripcord under the sheath</li> </ul>		
Temperature Range	Storage and transport -20 to +65°C	Installation -10 to +60°C	Operation -20 to +65°C
Standards	IEC 60793-1, IEC 60793-2, IEC 60794-4-20		
ZTT Specification	24-XJ34622-1-1-C		
Customer Reference	Common standard		

## 2. Dimensions

Span	80m	
Number of fibers	6	12
Material NO.	GL056163	GL056164
Loose tubes x fibers	1x6	1x12
Outer diameter	6.0±0.5mm	6.2±0.5mm
Weight	37kg/km±10%	39kg/km±10%

Sizes and values without tolerances are nominal values

Weather condition: 80M Span, 1.0% SAG, Maximum wind speed 25m/s

## 3. Mechanical Properties

Tensile load	1.5G for span 80m
Crush resistance	1.0G but min. 1000 N/100mm
Min. bending radius	20x cable-Ø (installation), 15x cable-Ø (operation)

See Point 6: Test Methods; Remark: G is the weight of the cable per km

## 4. Marking

Fiber colors	1	2	3	4	5	6	7	8	9	10	11	12
	green	yellow	white	blue	red	violet	brown	pink	black	gray	orange	aqua

Tube Colors	1
	natural

Outer Sheath: black, ink jet, marking in 1 meter intervals as follows (for example):

**ZTT OPTICAL CABLE < cable type > < batch ID > < meter marking >**

## 5. Optical Fiber

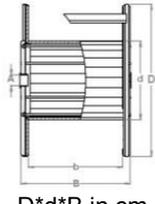
Standard	ITU-T G.652D ZTT-ALF®		
Optical	Fibre attenuation .. cabled	@ 1310 nm ≤0.36 dB/km	@ 1550 nm ≤0.22 dB/km
	Mode field diameter (MFD)	9.2 ± 0.4 μm @1310nm	
	Zero dispersion wavelength	1300~1324 nm	
	Zero dispersion slope	≤0.092 ps/nm <sup>2</sup> ·km	
	Polarisation mode dispersion (PMD)	≤0.20 ps/√km	
	Cut-off wavelength	≤1260 nm	
	Macro bending loss .. 100 turns Ø60 mm	@1550 nm ≤0.05 dB	@1625 nm ≤0.10 dB
Geometric	Outer diameter(after)	250 ± 5 μm	
	Cladding diameter	125 ± 1 μm	
	Core/clad concentricity error	≤0.6 μm	
	Cladding non-circularity	≤1.0 %	
Mechanical	Proof stress	≥0.69 Gpa	

## 6. Test Methods

Test	Conditions	Acceptance criteria
Tensile strength IEC 60794-1-21 E1	Tensile strength: see Point 3 Sample length: ≥ 25m, Test duration: 1 min	- Δα reversible - No damage
Crush resistance IEC 60794-1-21 E3	Crush: see Point 3 Test duration: 1 min, number of tests: 3	- Δα reversible - No damage
Impact IEC 60794-1-21E4	Impact energy: 3 J R = 10 mm, number of places/tests: 3	- Δα reversible - No damage
Repeated bending IEC 60794-1-21 E6	Bending radius: 20x cable Ø 25 cycles	- Δα reversible - No damage
Torsion IEC 60794-1-21 E7	Sample length: 2 m ± 180°, 10 cycles	- Δα reversible - No damage
Bend IEC 60794-1-21 E11A	Bending radius: 20x cable Ø 4 bends, 3 cycles	- Δα reversible - No damage
Temperature cycling IEC 60794-1-22 F1	-20°C → +65°C 12 hours at each temperature step, 2 cycles	- Δα ≤ 0.15dB/km and reversible
Water penetration IEC 60794-1-22 F5	Sample length: 3 m Water column height: 1 m Test duration: 24 h	- No water leakage

All optical measurements at 1550 nm.

## 7. Logistics

Cable type	Standard length	3km/reel	
GYQFHTCY-6 G.652D	Drum Type Dimensions (tolerance: ±5cm) Weight (kg) (tolerance: ±15%)	Plywood 79*40*55 127kg	
GYQFHTCY-12 G.652D		Plywood 79*40*55 133kg	

Dimensions including protection. Indicative values, actually delivered drum sizes and weights may deviate. Cable ends sealed with caps

Version	Date	Prepared	Reviewed	Approved	Remark
C	Apr.27, 2024	Arlo	Tim	Erica	Change the drum size Cable diameter 6.0\6.2mm
B	Apr.13, 2024	Arlo	Tim	Erica	Retaining cable diameter 6.2\6.4mm
A	Mar.05, 2024	Arlo	Tim	Erica	/

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