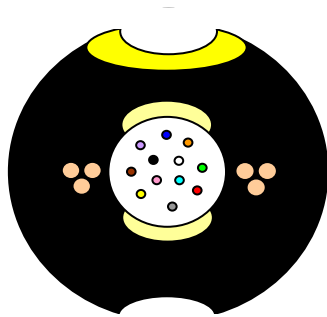


Aerial drop optical fibre cable

TC06511



-not to scale-

Cable Design

According to IEC/EN 60794

- **Optical Fibre:** 250µm single-mode G.657.A1.
- **Tube:** thermoplastic material, containing between 1 and 24 single-mode optical fibres and filled with a suitable water tightness compound.
- **Strength Member:** 3 x 0.32mm brass plated steel wires.
- **Longitudinal Water Tightness:** water swellable materials (core only).
- **Outer Sheath:** UV resistant HDPE.
- **Grooves/Stripes:** Indicate planes for easy sheath removal.

Cable Application

This loose tube optical drop cable is design for aerial and/or duct applications and is suitable for use under 11 kV power cables. Please refer to our General Installation (Datasheet Ref: CIG059) and Safety & Handling recommendations (Generic Optical cable MSDS - Datasheet Ref: 9980-02-1) before handling.

Technical Data

No. of Fibres		4	12	24
Design	Ref	60096594	60096432	60096565
Layout	-	Single central tube		
Unit Diameter – Ø	mm	2.2		
Sheath Thickness	mm	1.6		
Cable Diameter – Ø	mm	6.0		
Cable Weight	kg / km	32		33
MIT (Maximum Installation Tension)	N	150		
MAT (Maximum Allowable Tension)	N	1200		
Breaking Load	N	1350 – 2000		
Minimum Setting Diameter	mm	120		
Temperature Range	°C	Transport & Storage: -40 → +70	Installation: -20 → +45	Operation: -20 → +60

Main Characteristics

Test	Standard	Specified Value	Acceptance Criteria
Maximum Tension MAT	IEC 60794-1-21-E1	1200 N	$\Delta\alpha \leq 0.05$ dB, $\Delta I/I \leq 0.80\%$
Crush	IEC 60794-1-21-E3	2000 N / 100 mm, 10 min	$\Delta\alpha \leq 0.05$ dB
Impact	IEC 60794-1-21-E4	2 J, 3 impacts, R = 300mm	$\Delta\alpha \leq 0.05$ dB
Torsion	IEC 60794-1-21-E7	$\pm 360^\circ$, 2 m	$\Delta\alpha \leq 0.05$ dB
Kink	IEC 60794-1-21-E10	D = 10 x OD	Cable integrity
Bend	IEC 60794-1-21-E11	D = 10 x OD, 3 turns, 5 cycles	$\Delta\alpha \leq 0.05$ dB
Temperature Range	IEC 60794-1-22-F1	-20 °C to +60 °C -40 °C to +70 °C	$\Delta\alpha \leq 0.05$ dB/km $\Delta\alpha \leq 0.15$ dB/km
Water Penetration	IEC 60794-1-22-F5B	3 m sample, 1 m water, 24 h	no water penetration (core only)
Ageing	IEC 60794-1-22-F9	168 hours, +85 °C	$\Delta\alpha \leq 0.25$ dB/km, $\Delta\alpha \leq 0.10$ dB/km average

Climatic Conditions		Sag %	Maximum Span (m)
Max. wind speed (km/hr)	Max. ice loading (radial thickness)	1.8	68
97 0	none 5mm		

Optical Characteristics

See the attached optical fibre data sheet ref: 250µm single-mode G.657.A1 (CH).

Identification

Fibre Colours:

No.	1	2	3	4	5	6	7	8	9	10	11	12
Colour	blue	orange	green	red	grey	yellow	brown	violet	black	white	pink	turquoise
No.	13	14	15	16	17	18	19	20	21	22	23	24
Colour	orange	green	red	white	yellow	pink	orange	green	red	white	yellow	pink

Unit Colours:

No.	1
Colour	natural

Sheath Colour:

The outer sheath colour is black with yellow stripe.

Sheath Marking:

The outer sheath is marked in 1-meter intervals as follows:

ETC GROUP <COMTEC CODE>IA ULW OH/UG CABLE <no. of fibres>FO G657A1 <year> <week> <batch number> <length marking>M

SAP Code	COMTEC CODE
04FO 60096564	829813
12FO 60096432	821669
24FO 60096565	829677

Logistic

Packing: Plywood reels.

Delivery Lengths: Standard delivery length is 2 km.
Maximum delivery length is 6 km.

All optical measurements in accordance with ITU-T G650 recommendations

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