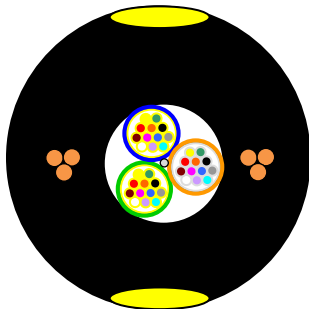


Aerial drop optical fibre cable

TC06516



-not to scale-

Cable Design

According to IEC/EN 60794

- **Optical Fibre:** 250µm single-mode G.657.A1.
- **Units:** 12 single-mode optical fibres bound together in acrylate resin to form a single unit.
- **Strength Member:** 3 x 0.32mm brass plated steel wires.
- **Longitudinal Water Tightness:** water swellable materials (core only).
- **Outer Sheath:** UV resistant HDPE.
- **Stripes:** Indicate planes for easy sheath removal.

Cable Application

This multi-unit 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		36	48
Design	Ref	60096431	60096433
Layout (Units x Fibres)	-	3 x 12	4 x 12
Unit Diameter – Ø	mm		1.3
Sheath Thickness	mm		1.9
Cable Diameter – Ø	mm	7.0	7.1
Cable Weight	kg / km	43	45
MIT (Maximum Installation Tension)	N		150
MAT (Maximum Allowable Tension)	N		1200
Breaking Load	N		1350 - 2000
Minimum Setting Diameter	mm		140
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	See table above	$\Delta I/I \leq 0.80\%$, $\Delta\alpha$ reversible
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 = 12 x OD	Cable integrity
Bend	IEC 60794-1-21-E11	D = 12 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

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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 (SG).

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

Unit Colours:

No.	1	2	3	4
Colour	blue	orange	green	red

Sheath Colour:

The outer sheath colour is black with yellow stripes.

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
36FO 60096431	828340
48FO 60096433	821670

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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