Ultra-Lightweight Aerial Cable

ULW 4-48 fibers G657A1 TIA598

Features

- Up to 48 fibers
- Super lightweight and durable design based on unique miniature loose tubes
- For aerial or duct installations
- Bend resistant G657A1 fibres
- Dry design with longitudinal water tightness
- Suitable for use with a minimum vertical separating distance of 1.8m from 11kv - Controlled tensile breaking force for maximum security, less than 2000N
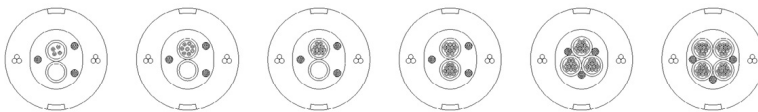- 7mm cable diameter

Application

The Hexatronic Ultra-lightweight cable range is designed for aerial installations for fibre access networks. As a secondary application the cables can also be installed underground in ducts. The cables are designed to fulfil all requirements to be installed in the British Telecom overhead and underground environments.

Design

The cables are of a loose tube design with bend resistant G657A1 fibres organised in 4, 8 or 12 fibre miniature loose tubes depending on cable fibre count. This design gives an excellent bend performance and an extremely wide operational temperature range. The unique miniature loose tubes also provide superior cable preparation and handling properties both for termination and midspan access scenarios. Water swellable elements are used to make the cable design longitudinally watertight. Two 3x0.32 mm brass coated steel wires are used as strength members. The design makes it possible to control the breaking force of the cable so that the cable will break only when a certain load is reached.

Product Information

1 Primary coated fiber: Silica, acrylate

2 Loose tube, jelly filled: PA

3 Strength member: Brass coated steel wires

4 Water blocking element: Water blocking yarns

5 Sheath: Polyethylene

Technical Information

Product Color	Black sheath with yellow stripes
Color Code	TIA598
Temperature, Operation [°C]	-20 to +60
Temperature, Storage [°C]	-30 to +70
Temperature, Installation [°C]	-15 to +50
Fiber Type	G657A1

Attenuation @Wavelength [nm]	1310/1550/1625
Maximum Attenuation [dB/km]	0.35/0.21/0.24
Conformance	Mechanical tests according to BT CW1842 13.1.1-13.1.1. Kink test according to IEC 60794-1-21. High voltage test (11kV) according to BT CW1500-11.
Marking	Marking: Example of sheath marking, 1 time/meter: "= xxxxx M = HEXATRONIC – H4036001/12 yy.mm.dd" where yy.mm.dd = year, month and day of manufacture, xxxxx=running meter marking.
Installation Notes	The cable shall only be installed using approved suspension clamps. Recommended maximum span length for PIA applications is 68m, taking into account wind loads and 5mm ice coverage, but up to 80m is possible for special cases.
Ordering Information	**Supplied lengths**: 250m to 6km.
	To comply with PIA regulations Hexatronic part numbers for the ULW cable range consist of a base number and a suffix containing a unique two letter customer code and a reel length code. The customer name and the part number are also printed on the sheath.
	Example: H403011/36XX-1 = ULW cable 36F G657A1 for customer "XX" with length "1" (1000m).

Technical Details

TIA-598 Fibers and Tubes	1	2	3	4	5	6	7	8	9	10	11	12
	Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Violet	Rose	Aqua
	13	14	15	16	17	18	19	20	21	22	23	24
	Blue |	Orange |	Green |	Brown |	Slate |	White |	Red |	Clear |	Yellow |	Violet |	Rose |	Aqua |

TIA 598 Color Code Chart

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Article name	Color	No. of Fibers	Layout	Bend Radius [mm]	Tensile Force, Operation [N]	Crush [N/100 mm]	Impact [J]	Diameter Ø [mm]	Weight [kg/km]	Length [m]
ULW Aerial Cable 4f, G657A1 TOL4036011/4	Black	4	1x4	30	1200	2	10	7	33	–
ULW Aerial Cable 4f, G657A1, 2000m H4036011/04-3	Black	4	1x4	30	1200	2	10	7	33	2000
ULW Aerial Cable 8f, G657A1 TOL4036011/8	Black	8	1x8	30	1200	2	10	7	33	–
ULW Aerial Cable 8f, G657A1, 2000m H4036011/08-3	Black	8	1x8	30	1200	2	10	7	33	2000
ULW Aerial Cable 12f, G657A1 TOL4036011/12	Black	12	1x12	30	1200	2	10	7	33	–
ULW Aerial Cable 12f, G657A1, 2000m H4036011/12-3	Black	12	1x12	30	1200	2	10	7	33	2000
ULW Aerial Cable 24f, G657A1 TOL4036011/24	Black	24	2x12	30	1200	2	10	7	37	–
ULW Aerial Cable 24f, G657A1, 2000m H4036011/24-3	Black	24	2x12	30	1200	2	10	7	37	2000
ULW Aerial Cable 36f, G657A1 TOL4036011/36	Black	36	3x12	30	1200	2	10	7	37	–
ULW Aerial Cable 36f, G657A1, 2000m H4036011/36-3	Black	36	3x12	30	1200	2	10	7	37	2000
ULW Aerial Cable 48f, G657A1 TOL4036011/48	Black	48	4x12	30	1200	2	10	7	37	–
ULW Aerial Cable 48f, G657A1, 2000m H4036011/48-3	Black	48	4x12	30	1200	2	10	7	37	2000