



Application

Aerial use (self supporting), direct use in ducts, Aerial-to-duct transitions, Aerial-to-underground installations

Design

- Optical Fibres
- Gel-Filled Buffer Tubes
- Dielectric Central Member
- Water Blocked Cable Core
- Dielectric Strength Elements (Aramid)
- 2 Ripcords
- PE-Sheath

Benefits

- Outstanding optical performance, durability, and field reliability
- Fast, one-step installation for valuable time and cost savings
- Easily strippable sheath for quick, convenient cable preparation

Version illustrated is the 144 Fibre Cable

Fibre Count	Tubes	Core Design	Outer Diameter [mm]	Cable Weight [kg/km]	Standard Length [m]	Tensile Load [N]
Tube Diameter 3.0 mm						
2	1	1+5	11.7	105	2000 / 4000	Pls. refer Sag&Ten list
4	1	1+5	11.7	105	2000 / 4000	Pls. refer Sag&Ten list
8	1	1+5	11.7	105	2000 / 4000	Pls. refer Sag&Ten list
12	2	1+5	11.7	105	2000 / 4000	Pls. refer Sag&Ten list
24	4	1+5	11.7	105	2000 / 4000	Pls. refer Sag&Ten list
48	4	1+5	11.7	105	2000 / 4000	Pls. refer Sag&Ten list
96	8	1+8	14.8	165	2000 / 4000	Pls. refer Sag&Ten list
144	12	1+12	19.0	270	2000 / 4000	Pls. refer Sag&Ten list

This table shows calculated diameter and weight values which may differ in shipments

Identification

Fiber Colour Code:

1	White	5	Blue	9	Violet
2	Red	6	Grey	10	Turkis
3	Yellow	7	Brown	11	Orange
4	Green	8	Black	12	Rosa

Tube Colour Code:

1	Red	5	White	9	White
2	Green	6	White	10	White
3	White	7	White	11	White
4	White	8	White	12	White

Sheath Marking:

OFS OPTICAL CABLE [ID] [MM/YYYY] [Handset Sign] xxxF [Meter Marking]

Alternative sheath printing available on request

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Sag and Tension Calculation

AT-3BE17D2-002 CLGA

Loading Conditions: NESC Heavy

Ice Thickness	12.7 mm
Wind Pressure	192 N/m ² (63.6 km/h)
Temperature	- 17,8 °C
Safety Factor	4.38

Tension @ Maximum Span for 1,5% Installation Sag

Short Term	301 kg
Long Term	55 kg

Specification

Maximum Span	70 m
Installation Temperature	20 °C
Cable Modulus	374 Kg/mm ²
Linear Expansion Coefficient	0,0000152 1/°C
Estimated Break Load	599 kg

No Loading @ Install Temperature: 20 °C					All Loading Conditions @ Temperature: -17,8 °C			
Span	Sag	Install Sag	Tension	Vertical Sag	Tension	Vertical Sag	Horizontal Sag	Angle
m	m	%	kg	% of Span	kg	m	m	Deg
10	0.2	1.5	8	2.1	79	0.2	0.2	36
20	0.3	1.5	16	2.6	128	0.5	0.4	36
30	0.5	1.5	23	3.0	169	0.9	0.7	36
40	0.6	1.5	31	3.3	205	1.3	1.0	36
50	0.8	1.5	39	3.5	239	1.8	1.3	36
60	0.9	1.5	47	3.7	271	2.2	1.6	36
70	1.1	1.5	55	3.9	301	2.7	2.0	36

Sag and Tension Calculation

AT-3BE17D4-004 CLGA

Loading Conditions: NESC Heavy

Ice Thickness	12.7 mm
Wind Pressure	192 N/m ² (63.6 km/h)
Temperature	- 17,8 °C
Safety Factor	4.38

Tension @ Maximum Span for 1,5% Installation Sag

Short Term	301 kg
Long Term	55 kg

Specification

Maximum Span	70 m
Installation Temperature	20 °C
Cable Modulus	374 Kg/mm ²
Linear Expansion Coefficient	0,0000152 1/°C
Estimated Break Load	599 kg

No Loading @ Install Temperature: 20 °C					All Loading Conditions @ Temperature: -17,8 °C			
Span	Sag	Install Sag	Tension	Vertical Sag	Tension	Vertical Sag	Horizontal Sag	Angle
m	m	%	kg	% of Span	kg	m	m	Deg
10	0.2	1.5	8	2.1	79	0.2	0.2	36
20	0.3	1.5	16	2.6	128	0.5	0.4	36
30	0.5	1.5	23	3.0	169	0.9	0.7	36
40	0.6	1.5	31	3.3	205	1.3	1.0	36
50	0.8	1.5	39	3.5	239	1.8	1.3	36
60	0.9	1.5	47	3.7	271	2.2	1.6	36
70	1.1	1.5	55	3.9	301	2.7	2.0	36

Sag and Tension Calculation

AT-3BE17D8-008 CLGA

Loading Conditions: NESC Heavy

Ice Thickness	12.7 mm
Wind Pressure	192 N/m ² (63.6 km/h)
Temperature	- 17,8 °C
Safety Factor	4.38 N/m

Tension @ Maximum Span for 1,5% Installation Sag

Short Term	302 kg
Long Term	56 kg

Specification

Maximum Span	70 m
Installation Temperature	20 °C
Cable Modulus	374 Kg/mm ²
Linear Expansion Coefficient	0,00001557 1/°C
Estimated Break Load	599 kg

No Loading @ Install Temperature: 20 °C					All Loading Conditions @ Temperature: -17,8 °C			
Span	Sag	Install Sag	Tension	Vertical Sag	Tension	Vertical Sag	Horizontal Sag	Angle
m	m	%	kg	% of Span	kg	m	m	Deg
10	0.2	1.5	8	2.1	80	0.2	0.2	36
20	0.3	1.5	16	2.6	129	0.5	0.4	36
30	0.5	1.5	24	3.0	169	0.9	0.7	36
40	0.6	1.5	32	3.3	206	1.3	1.0	36
50	0.8	1.5	40	3.5	240	1.7	1.3	36
60	0.9	1.5	48	3.7	271	2.2	1.6	36
70	1.1	1.5	56	3.9	302	2.7	2.0	36

Sag and Tension Calculation

AT-3BE17D6-012 CLGA

Loading Conditions: NESC Heavy

Ice Thickness	12.7 mm
Wind Pressure	192 N/m ² (63.6 km/h)
Temperature	- 17,8 °C
Safety Factor	4.38 N/m

Tension @ Maximum Span for 1,5% Installation Sag

Short Term	302 kg
Long Term	56 kg

Specification

Maximum Span	70 m
Installation Temperature	20 °C
Cable Modulus	374 Kg/mm ²
Linear Expansion Coefficient	0,00001557 1/°C
Estimated Break Load	599 kg

No Loading @ Install Temperature: 20 °C					All Loading Conditions @ Temperature: -17,8 °C			
Span	Sag	Install Sag	Tension	Vertical Sag	Tension	Vertical Sag	Horizontal Sag	Angle
m	m	%	kg	% of Span	kg	m	m	Deg
10	0.2	1.5	8	2.1	80	0.2	0.2	36
20	0.3	1.5	16	2.6	129	0.5	0.4	36
30	0.5	1.5	24	3.0	169	0.9	0.7	36
40	0.6	1.5	32	3.3	206	1.3	1.0	36
50	0.8	1.5	40	3.5	240	1.7	1.3	36
60	0.9	1.5	48	3.7	272	2.2	1.6	36
70	1.1	1.5	56	3.9	302	2.7	2.0	36

Sag and Tension Calculation

AT-3BE17D6-024 CLGA

Loading Conditions: NESC Heavy

Ice Thickness	12.7 mm
Wind Pressure	192 N/m ² (63.6 km/h)
Temperature	- 17,8 °C
Safety Factor	4.38 N/m

Tension @ Maximum Span for 1,5% Installation Sag

Short Term	304 kg
Long Term	58 kg

Specification

Maximum Span	70 m
Installation Temperature	20 °C
Cable Modulus	374 Kg/mm ²
Linear Expansion Coefficient	0,00001628 1/°C
Estimated Break Load	599 kg

No Loading @ Install Temperature: 20 °C					All Loading Conditions @ Temperature: -17,8 °C			
Span	Sag	Install Sag	Tension	Vertical Sag	Tension	Vertical Sag	Horizontal Sag	Angle
m	m	%	kg	% of Span	kg	m	m	Deg
10	0.2	1.5	8	2.1	80	0.2	0.2	36
20	0.3	1.5	17	2.6	129	0.5	0.4	36
30	0.5	1.5	25	3.0	170	0.9	0.7	36
40	0.6	1.5	33	3.3	207	1.3	1.0	36
50	0.8	1.5	41	3.5	241	1.7	1.3	36
60	0.9	1.5	50	3.7	273	2.2	1.6	36
70	1.1	1.5	58	3.9	304	2.7	2.0	36

Sag and Tension Calculation

AT-3BE17DT-048 CLGA

Loading Conditions: NESC Heavy

Ice Thickness	12.7 mm
Wind Pressure	192 N/m ² (63.6 km/h)
Temperature	- 17,8 °C
Safety Factor	4.38 N/m

Tension @ Maximum Span for 1,5% Installation Sag

Short Term	304 kg
Long Term	58 kg

Specification

Maximum Span	70 m
Installation Temperature	20 °C
Cable Modulus	374 Kg/mm ²
Linear Expansion Coefficient	0,00001628 1/°C
Estimated Break Load	599 kg

No Loading @ Install Temperature: 20 °C					All Loading Conditions @ Temperature: -17,8 °C			
Span	Sag	Install Sag	Tension	Vertical Sag	Tension	Vertical Sag	Horizontal Sag	Angle
m	m	%	kg	% of Span	kg	m	m	Deg
10	0.2	1.5	8	2.1	80	0.2	0.2	36
20	0.3	1.5	17	2.6	130	0.5	0.4	36
30	0.5	1.5	25	3.0	170	0.9	0.7	36
40	0.6	1.5	33	3.3	207	1.3	1.0	36
50	0.8	1.5	42	3.5	241	1.7	1.3	36
60	0.9	1.5	50	3.7	273	2.2	1.6	36
70	1.1	1.5	58	3.9	304	2.7	2.0	36

Sag and Tension Calculation

AT-3BE17DT- 096 CLGA

Loading Conditions: NESC Heavy

Ice Thickness	12.7 mm
Wind Pressure	192 N/m ² (63.6 km/h)
Temperature	- 17,8 °C
Safety Factor	4.38 N/m

Tension @ Maximum Span for 1,5% Installation Sag

Short Term	361 kg
Long Term	95 kg

Specification

Maximum Span	70 m
Installation Temperature	20 °C
Cable Modulus	284,6 Kg/mm ²
Linear Expansion Coefficient	0,00002124 1/°C
Estimated Break Load	725 kg

No Loading @ Install Temperature: 20 °C					All Loading Conditions @ Temperature: -17,8 °C			
Span	Sag	Install Sag	Tension	Vertical Sag	Tension	Vertical Sag	Horizontal Sag	Angle
m	m	%	kg	% of Span	kg	m	m	Deg
10	0.2	1.5	14	2.0	97	0.2	0.1	36
20	0.3	1.5	27	2.5	153	0.5	0.3	36
30	0.5	1.5	41	2.8	202	0.9	0.6	36
40	0.6	1.5	54	3.1	246	1.2	0.8	36
50	0.8	1.5	68	3.3	286	1.7	1.1	36
60	0.9	1.5	81	3.5	325	2.1	1.4	36
70	1.1	1.5	95	3.7	361	2.6	1.8	36

Sag and Tension Calculation

AT-3BE17DT- 144 CLGA

Loading Conditions: NESC Heavy

Ice Thickness	12.7 mm
Wind Pressure	192 N/m ² (63.6 km/h)
Temperature	- 17,8 °C
Safety Factor	4.38 N/m

Tension @ Maximum Span for 1,5% Installation Sag

Short Term	461 kg
Long Term	156 kg

Specification

Maximum Span	70 m
Installation Temperature	20 °C
Cable Modulus	251,3 Kg/mm ²
Linear Expansion Coefficient	0,00002452 1/°C
Estimated Break Load	1015 kg

No Loading @ Install Temperature: 20 °C					All Loading Conditions @ Temperature: -17,8 °C			
Span	Sag	Install Sag	Tension	Vertical Sag	Tension	Vertical Sag	Horizontal Sag	Angle
m	m	%	kg	% of Span	kg	m	m	Deg
10	0.2	1.5	22	1.8	124	0.2	0.1	31
20	0.3	1.5	45	2.3	196	0.5	0.3	31
30	0.5	1.5	67	2.6	258	0.8	0.5	31
40	0.6	1.5	89	2.9	313	1.1	0.7	31
50	0.8	1.5	112	3.1	365	1.5	0.9	31
60	0.9	1.5	134	3.2	414	1.9	1.2	31
70	1.1	1.5	156	3.4	416	2.4	1.4	31