

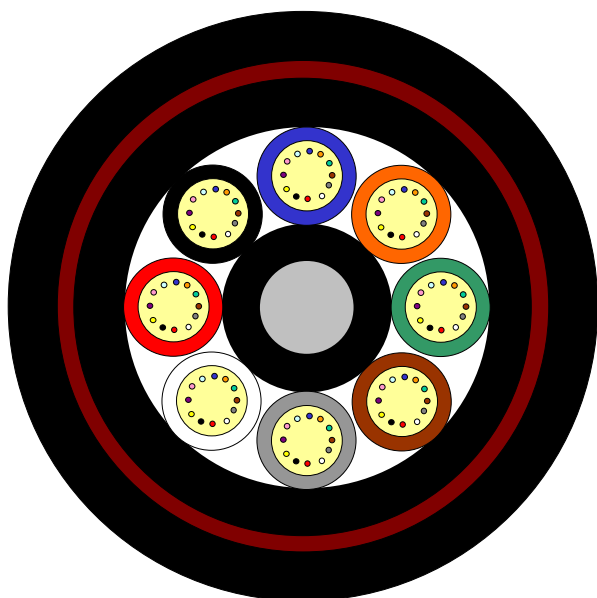
All-Dielectric, Self Supporting (ADSS) Aerial Loose Tube Fibre Optic Cable

Dry core design

Power Guide®



Issue April 2019
according to **Customised OFS Generic Specification**



Design

- Optical Fibres
- Gel-filled Buffer Tubes
- Non-metallic Central Member
- Water Blocking Threads
- Ripcords
- Inner PE-Jacket
- Non-metallic Aramid Strength Elements
- Outer PE-Jacket

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 96 Fibre Cable

Fibre Count	Tubes	Core Design	Outer Diameter [mm]	Cable Weight [kg/km]	Standard Length [m]	AT-Code**
12 Fibres per tube						
48	4	1+5 (1 Filler*)	13.6	145	2000 / 4000 / 6000 / 8000	AT-3CE27DT-048-CNCB
96	8	1+8	17.2	225	2000 / 4000 / 6000 / 8000	AT-3CE27DT-096-CNGB

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

*Fillers are natural coloured. **Please refer to the OFS AT- Code.

Identification

Tube and Fibre Colour Code :

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

Alternative tube and fibre colour code available on request.

Sheath Marking:

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

Alternative sheath printing available on request.

In case of order the exact sheath printing text will be clarified with the customer.



All-Dielectric, Self Supporting (ADSS) Aerial Loose Tube Fibre Optic Cable

Dry core design

Power Guide®



Issue April 2019
according to **Customised OFS Generic Specification**

Sag and Tension Calculation

AT-3CE27DT-048-CNCB

NESC HEAVY Loading Conditions

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	1021 kg
Long Term	286 kg

Maximum Span	250 m
Cable Weight	145 kg/km
Cable Diameter	13.6 mm
Installation Temperature	20 °C
Cable Modulus	676.8 kg/mm ²
Linear Expansion Coefficient	0,0000078 1/°C
Breaking Load	1468 kg

No Loading @ Install Temperature 20 C

Span m	Sag m	Install Sag %	Tension kg
25	0,4	1,50	29
50	0,8	1,50	57
75	1,1	1,50	86
100	1,5	1,50	114
125	1,9	1,50	143
150	2,3	1,50	171
175	2,6	1,50	200
200	3,0	1,50	228
225	3,4	1,50	257
250	3,8	1,50	286

All Loading Conditions @ Temperature -17,8 C

Vertical Sag % of Span	Tension kg	Vertical Sag m	Horizontal Sag m	Angle Deg
2,3	200	0,6	0,4	35
2,8	327	1,4	1,0	35
3,1	436	2,4	1,6	35
3,4	534	3,4	2,4	35
3,6	626	4,6	3,2	35
3,8	711	5,8	4,0	35
4,0	793	7,0	4,9	35
4,2	872	8,4	5,8	35
4,3	948	9,8	6,8	35
4,5	1021	11,2	7,8	35

The recommended maximum space potential at ADSS attachment point is 12 kV

Dead End Assembly:

MOSDORFER Dead-End: AS01-FDES-0500, Max. Tension: 2,500 lbs. (1,134 kg)
PLP Dead-End: 2872005C1E1, Max. Tension: 2,500 lbs. (1135 kg)

Fixed Tangent Support (Line Angle Changes <= 20 deg & Spans <= 600 ft (183 m))

MOSDORFER: Support Clamp: FOSC 0575
PLP: Dielectric block: 44009823
PLP: Aluminum Support: 4450101

Suspended Support (Line Angle Changes <= 20 deg & Spans <= 600 ft (183 m))

PLP: Aluminum Suspension: 4450201-S

Low Tension / Short Span Hardware:

MOSDORFER: Light Tension DE: FOLT1285-CTO, Max. Tension: 800 lbs. (362 kg)
PLP: Lite Tension DE: 2875004C1N, Max. Tension: 800 lbs. (362 kg)
PLP: Lite Support: 4800114, Max. Span 300 ft (91 m)
PLP PGTH Dead End: Not Available

Slack Storage Devices: Not recommended for TR cables

PLP Fiberlign® CLAS Storage System w/cable guide: 710012375U

Heliformed Suspension Units (Line angle changes <= 30 degrees):

PLP: 43009922YC :Spans 1200ft to 2000ft (365m to 610m)
PLP: 4470201-S Aluminum Suspension with SRR rods, Max Span: 1200 ft (365m)

Vibration Dampers, see Application Note 812 for recommendations:

MOSDORFER Vibration Dampers: SVD0462
PLP Vibration Dampers: 50502274

Down Lead Cushion & Abrasion Protector:

PLP: 8003042, Add "H1" - Wood Attachment Kit & "LTC1" - Lattice Clamp Kit
PLP Abrasion Protector: PTG-0203 Length: 6 ft

Corona coils not required

PLP: Sized to fit appropriate hardware, part numbers available upon request

All-Dielectric, Self Supporting (ADSS) Aerial Loose Tube Fibre Optic Cable

Dry core design

Power Guide®



Issue April 2019
according to Customised OFS Generic Specification

Sag and Tension Calculation

AT-3CE27DT-096-CNGB

NESC HEAVY Loading Conditions

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	1229 kg
Long Term	460 kg

Maximum Span	250 m
Cable Weight	225 kg/km
Cable Diameter	17.2 mm
Installation Temperature	20 °C
Cable Modulus	501.6 kg/mm ²
Linear Expansion Coefficient	0.00001122 1/°C
Breaking Load	1739 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
25	0,4	1,50	46	2,2	238	0,6	0,4	32
50	0,8	1,50	92	2,7	389	1,4	0,9	32
75	1,1	1,50	138	3,0	519	2,3	1,5	32
100	1,5	1,50	184	3,3	637	3,3	2,1	32
125	1,9	1,50	230	3,5	746	4,4	2,8	32
150	2,3	1,50	276	3,7	851	5,6	3,5	32
175	2,6	1,50	322	3,9	950	6,8	4,3	32
200	3,0	1,50	368	4,0	1046	8,1	5,1	32
225	3,4	1,50	414	4,2	1139	9,4	5,9	32
250	3,8	1,50	460	4,3	1229	10,7	6,8	32

The recommended maximum space potential at ADSS attachment point is 12 kV

Dead End Assembly:

MOSDORFER Dead-End: N/A
PLP Dead-End: 2872105C1E1, Max. Tension: 4,000 lbs. (1135 kg)

Fixed Tangent Support (Line Angle Changes <= 20 deg & Spans <= 600 ft (183 m))

PLP: Lite Tension DE: 2875006C1N, Max. Tension: 800 lbs. (362 kg)
PLP: Dielectric block: 44009799
PLP: Aluminum Support: 4450104

Suspended Support (Line Angle Changes <= 20 deg & Spans <= 600 ft (183 m))

PLP: Aluminum Suspension: 4450204-S

Low Tension / Short Span Hardware:

MOSDORFER: Light Tension DE: FOLT1560-CTO, Max. Tension: 800 lbs. (362 kg)
PLP: Lite Tension DE: 2875006C1N, Max. Tension: 800 lbs. (362 kg)
PLP: Lite Support: 4800119, Max. Span 300 ft (91 m)
PLP PGTTH Dead End: Not Available

Slack Storage Devices: Not recommended for TR cables

PLP Fiberlign® CLAS Storage System w/cable guide: 710012375U

Heliformed Suspension Units (Line angle changes <= 30 degrees):

PLP: 43004965YC : Spans 1200ft to 2000ft (365m to 610m)
PLP: 4470203-S Aluminum Suspension with SRR rods, Max Span: 1200 ft (365m)

Vibration Dampers, see Application Note 812 for recommendations:

MOSDORFER Vibration Dampers: SVD0564
PLP Vibration Dampers: 50509862

Down Lead Cushion & Abrasion Protector:

PLP: 8003044, Add "H1" - Wood Attachment Kit & "LTC1" - Lattice Clamp Kit
PLP Abrasion Protector: PTG-0203 Length: 6 ft

Corona coils not required

PLP: Sized to fit appropriate hardware, part numbers available upon request