



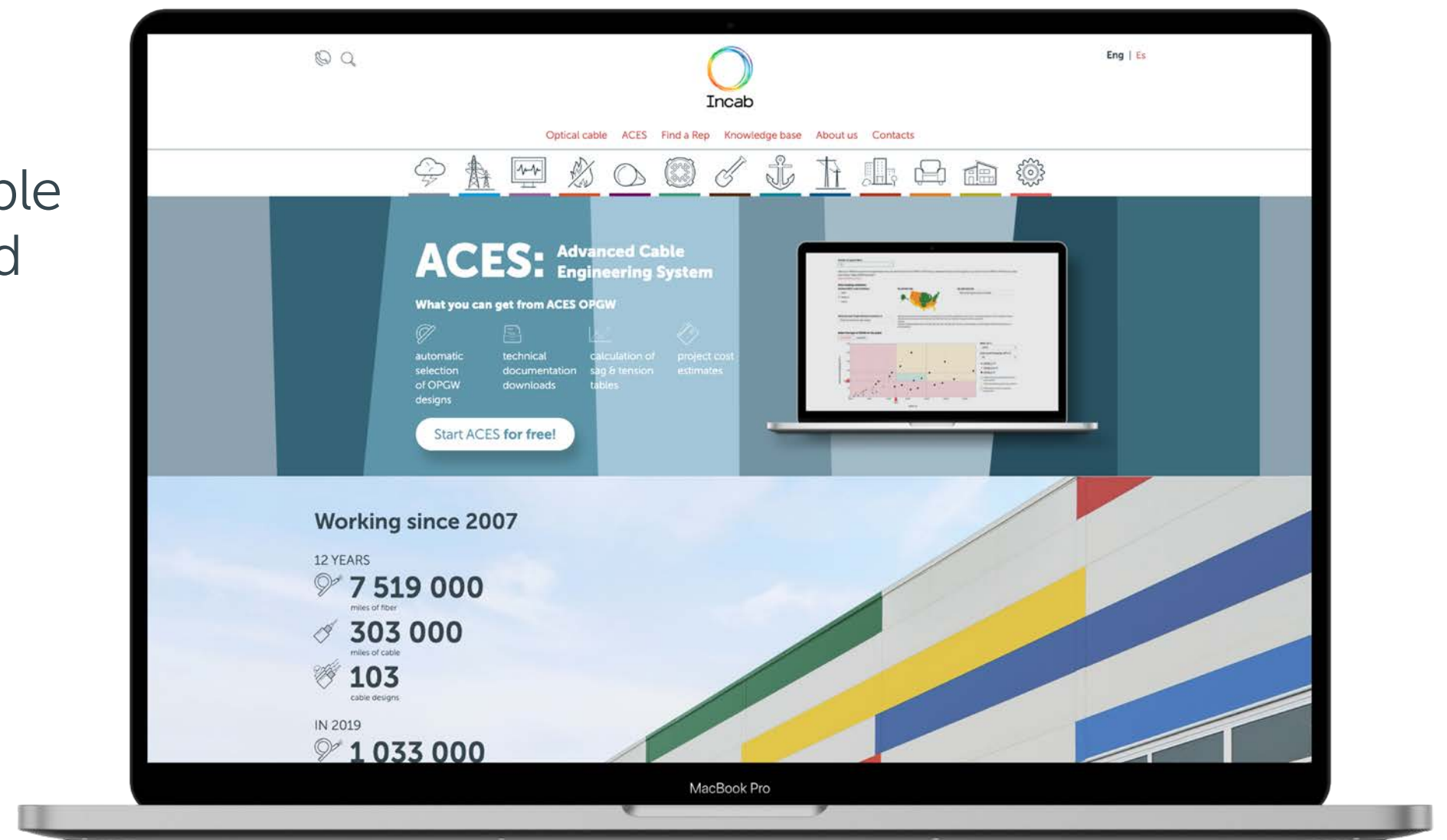
Incab

ACES:

Advanced Cable Engineering System

ACES ADVANCED CABLE ENGINEERING SYSTEM

A unique software tool to help engineers select the optimal cable design along with the associated accessories.



ACES

ADVANCED CABLE ENGINEERING SYSTEM

Key features:



Online



Absolutely
free



Quick
registration



Fast



Simple



Made with
love

Option to:

- save your project
- download technical documentation
- get sag and tension calculation



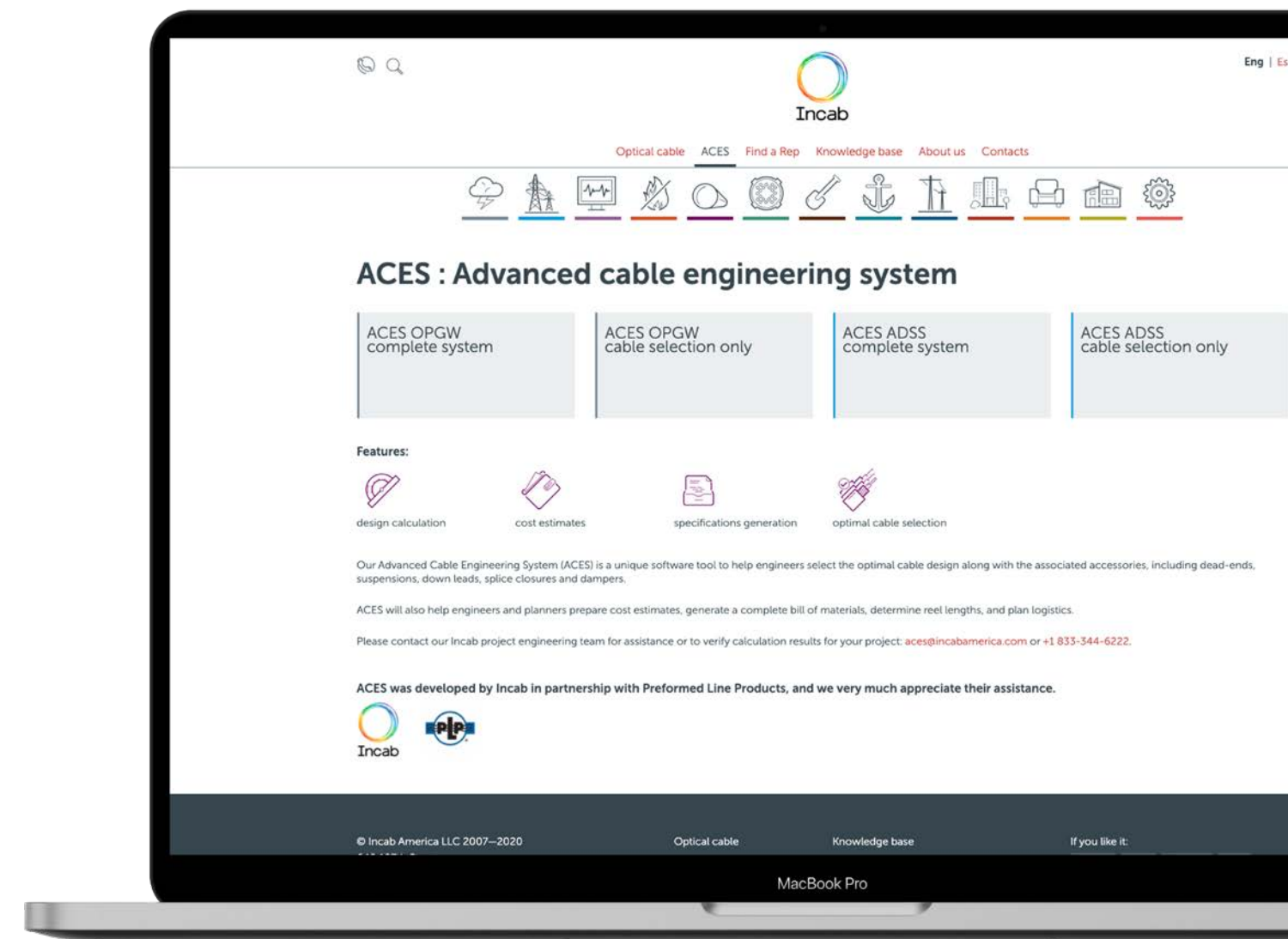
ACES was developed by Incab in partnership with Preformed Line Products,
and we very much appreciate their assistance.

ACES

ADVANCED CABLE ENGINEERING SYSTEM

There are 2 main versions of ACES:

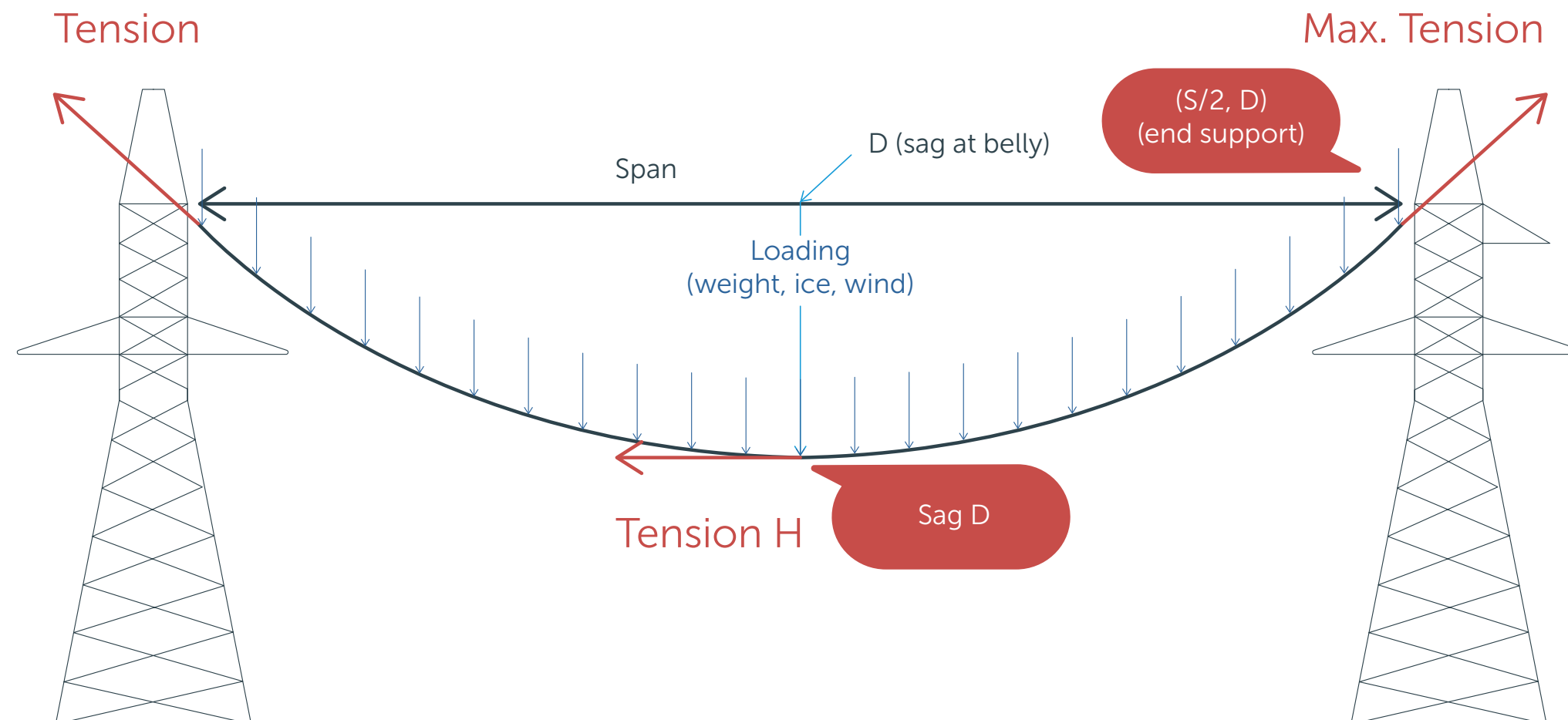
- for OPGW: Optical Ground Wire
- for ADSS: All-Dielectric Self-Supporting Cable



ACES

TECHNICAL NOTES

Effect of the span length and sag tension on the cable condition

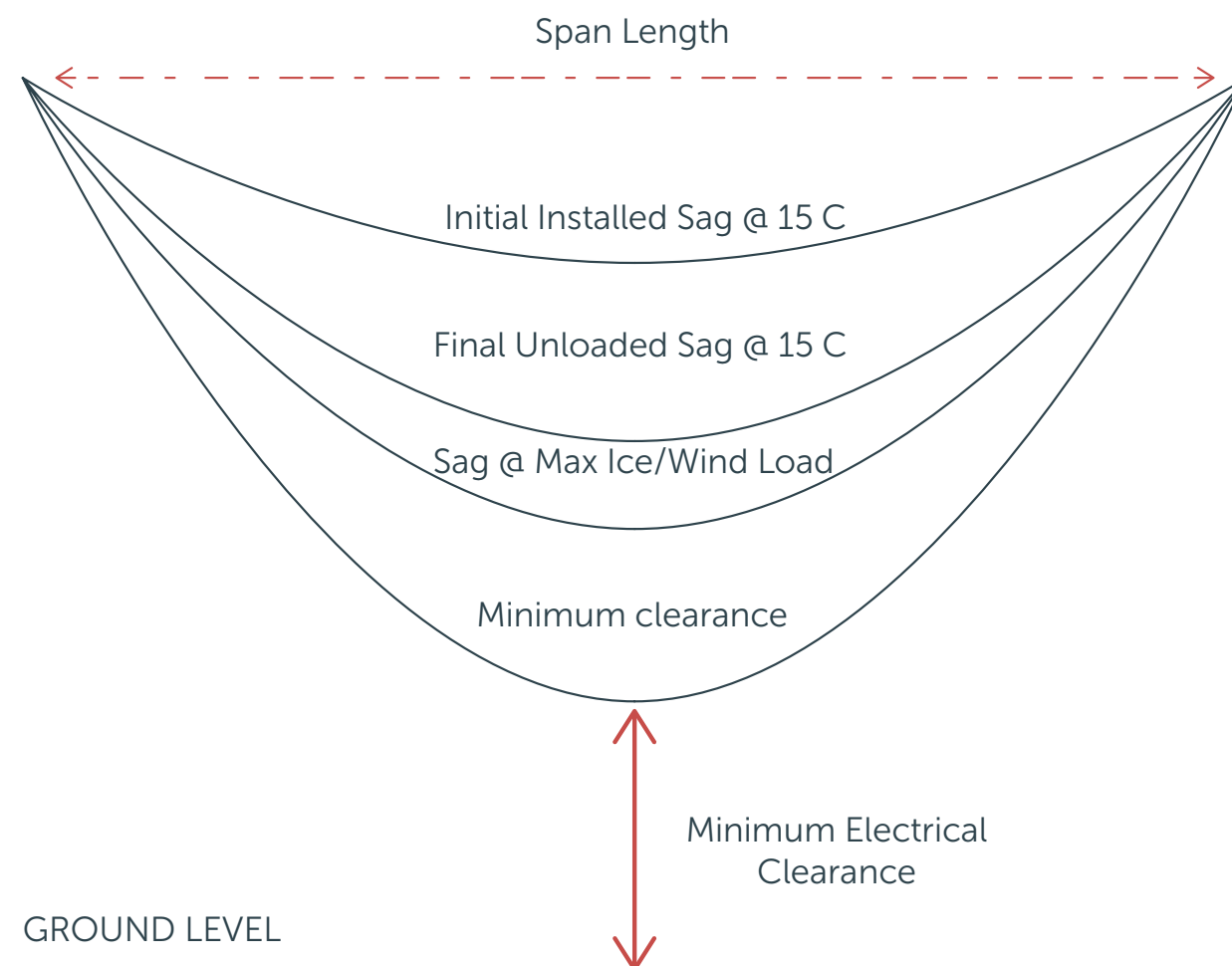


According to IEEE Sag-Ten Tutorial

ACES

TECHNICAL NOTES

Sag-tension envelope



ACES OPGW

- cable selection only
- complete system (lengths, sags, loads, accessories)

The screenshot displays the Incab website interface. At the top right is the Incab logo, a colorful circle with the text 'Incab' below it. A navigation menu includes 'Optical cable', 'ACES', 'Find a Rep', 'Knowledge base', and 'About'. Below the menu is a row of icons representing various services: a cloud with a lightning bolt, a power tower, a computer monitor with a waveform, a flame with a slash, a cable reel, a gear, an anchor, and a power line tower. The main heading reads 'ACES : Advanced cable engineering system'. Below this are three product cards: 'ACES OPGW complete system', 'ACES OPGW cable selection only', and 'ACES ADSS complete system'. The 'ACES OPGW cable selection only' card is highlighted with a blue border. Underneath is a 'Features:' section with four icons and labels: 'design calculation' (compass), 'cost estimates' (calculator), 'specifications generation' (document), and 'optimal cable selection' (cable reel). A paragraph of text follows: 'Our Advanced Cable Engineering System (ACES) is a unique software tool to help engineers select the optimal cable design, suspensions, down leads, splice closures and dampers.' Another paragraph states: 'ACES will also help engineers and planners prepare cost estimates, generate a complete bill of materials, determine reel lengths and more.' At the bottom, it says: 'Please contact our Incab project engineering team for assistance or to verify calculation results for your project: aces@incab.com'.

ACES OPGW CABLE SELECTION ONLY

3 steps

to get the optimal OPGW:

1. Select fiber count

The screenshot shows the web interface for the ACES OPGW cable selection tool. At the top, there is a search icon, the Incab logo, and the text "Eng | Es". Below this is a navigation bar with links for "Optical cable", "ACES", "Find a Rep", "Knowledge base", "About us", and "Contacts". A row of icons represents various services: a cloud with lightning, a power tower, a computer monitor with a waveform, a flame, a globe, a gear, a key, an anchor, a scale, a building, a chair, a house, and a gear.

ACES OPGW cable selection only

ACES OPGW complete system | **ACES OPGW cable selection only** | ACES ADSS complete system | ACES ADSS cable selection only

Automatic selection of OPGW, fittings and splice closures

Show hint

Fiber count

36
12
16
24
36
48
60
72
96
144

set minimums for the MRDT or RBS that you need and the fault current capacity. If you do not know the MRDT or RBS that you

MRDT, Ib [?]
Enter the MRDT

Fault Current Capacity, kA²-s [?]
Enter the fault current capacity

- OPGW_C [?]
- OPGW_CA [?]
- OPGW_S [?]
- OPGWAP [?]

The interface includes a dropdown menu for selecting the fiber count, currently set to 36. Below the dropdown is a scatter plot with a grid. The y-axis is labeled "kA²-s" and has a tick mark at 200. The x-axis is labeled "MRDT, Ib [?]" and has a tick mark at 200. The plot contains several data points: a black dot at approximately (200, 200), a green dot at approximately (150, 150), and several other green and black dots scattered in the lower-left quadrant. A legend on the right side of the plot identifies the colors: blue for OPGW_C, orange for OPGW_CA, black for OPGW_S, and green for OPGWAP.

ACES

OPGW CABLE SELECTION ONLY

2. Choose tension and loading conditions (by NESC)

Unique interactive map:
Just click the right region or start
typing the name of your state or city!

Select your OPGW as a point on the graph below. You can set minimums for the MRDT or RBS that you need and the fault current capacity. If you do not know the MRDT or RBS that you need, then click on "Select OPGW by tension".

[Select OPGW by tension](#)

Select loading conditions

Standard NESC Load Conditions

- Light
- Medium
- Heavy

By climate map



By state and city

-
- [Arizona, Phoenix \(AZ\)](#)
 - [Arkansas, Little Rock \(AR\)](#)
 - [Connecticut, Hartford \(CT\)](#)
 - [Delaware, Dover \(DE\)](#)
 - [Maryland, Annapolis \(MD\)](#)
 - [Nevada, Carson City \(NV\)](#)
 - [North Carolina, Raleigh \(NC\)](#)
 - [North Dakota, Bismarck \(ND\)](#)
 - [Pennsylvania, Harrisburg \(PA\)](#)
 - [South Carolina, Columbia \(SC\)](#)
 - [West Virginia, Charleston \(WV\)](#)
 - [Texas, Arlington \(TX\)](#)
 - [Maryland, Baltimore \(MD\)](#)
 - [Arizona, Chandler \(AZ\)](#)
 - [North Carolina, Charlotte \(NC\)](#)
 - [North Carolina, Durham \(NC\)](#)
 - [North Carolina, Fayetteville \(NC\)](#)
 - [Texas, Garland \(TX\)](#)
 - [Arizona, Gilbert \(AZ\)](#)
 - [Arizona, Glendale \(AZ\)](#)
 - [North Carolina, Greensboro \(NC\)](#)
 - [California, Garden Grove \(CA\)](#)
 - [Texas, Laredo \(TX\)](#)
 - [Arizona, Mesa \(AZ\)](#)
 - [New Jersey, Newark \(NJ\)](#)
 - [Kansas, Overland Park \(KS\)](#)
 - [California, Oxnard \(CA\)](#)
 - [California, San Bernardino \(CA\)](#)
 - [California, Santa Clarita \(CA\)](#)
 - [Arizona, Scottsdale \(AZ\)](#)
 - [Arizona, Tucson \(AZ\)](#)
 - [North Carolina, Winston-Salem \(NC\)](#)

Maximum span length between structures, ft

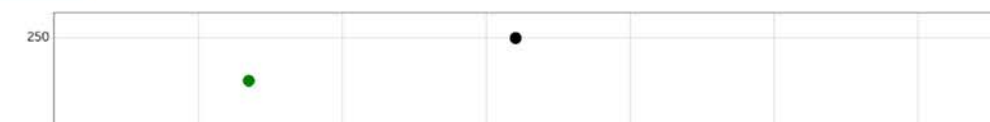
Enter the maximum span length

Specify the maximum distance between two adjacent structures, either suspensions or dead-ends. This distance together with the installation location will determine the maximum rated design tension that the OPGW will have to withstand throughout its entire service life.
Example:
10 poles. Distances between them: 750, 600, 600, 950, 750, 750, 600, 600, 750 feet. For this example, enter the distance: 950 feet (the maximum of all the distances).

[Select OPGW by diameter](#)

Select the type of OPGW on the graph

Using MRDT Using RBS



MRDT, lb [?]

Enter the MRDT

Fault Current Capacity, kA²-s [?]

Enter the fault current capacity

ACES OPGW CABLE SELECTION ONLY

3. Enter fault current capacity

Your optimal cable is in the **green zone**.



Convenient chart — no more awful tables!



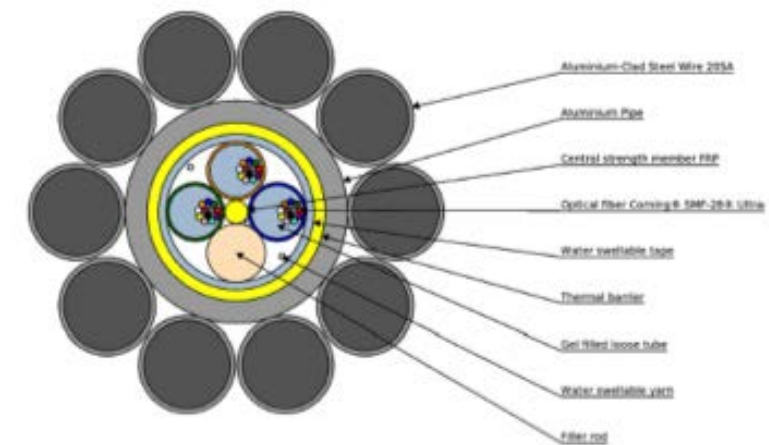
ACES OPGW CABLE SELECTION ONLY

Download your datasheet with cross section and all necessary parameters!

ACES OPGW | Advanced Cable Engineering System

Product Datasheet
Optical Ground Wire (OPGW)
OPGW AP 36U (3x12) 15.7mm 123kA2-s 130kN

Design



Design element	Material	Count	Diameter	
			Metric (mm)	Customary (inches)
Central Member	AP	1	8.4	0.3307
1st stranded layer	20% ACS	10	3.65	0.1437

Technical Specifications

Mechanical	Metric	Customary
Cable diameter	15.7 mm	0.618 in

ACES OPGW COMPLETE SYSTEM

5 steps

to your draft project:

1. Select your OPGW design

The screenshot shows the web interface for the ACES OPGW complete system. At the top right, there is a search icon and the Incab logo. Below the logo is a navigation menu with links for 'Optical cable', 'ACES', 'Find a Rep', 'Knowledge base', 'About us', and 'Contacts'. A horizontal bar contains various icons representing different system components. The main heading is 'ACES OPGW complete system', with a sub-menu showing 'ACES OPGW complete system' as the active selection. A list of features includes: automatic selection of accessories, calculation of manufactured lengths and splice closure positioning, vibration damping schemes, load and sag calculations, installation tables, and cost estimates. Below this is a 'More information' section with 'Save' and 'Open' buttons. A progress bar shows 'Step 1' as the current step, followed by 'Step 2', 'Step 3', 'Step 4', 'Step 5', and 'Bill of Material'. The 'Step 1. ACES OPGW selection' section includes a 'Show hint' button and a 'Fiber count' dropdown menu. The interface also provides instructions on how to select OPGW based on tension or diameter.

Eng | Es

Optical cable ACES Find a Rep Knowledge base About us Contacts

ACES OPGW complete system

ACES OPGW complete system ACES OPGW cable selection only ACES ADSS complete system ACES ADSS cable selection only

- Automatic selection of accessories (OPGW, fittings, splice closures)
- Calculation of manufactured lengths and automatic positioning of splice closures along the cable route
- Calculation of vibration damping schemes
- Calculation of loads and sags in case of maximum icing and wind
- Calculation of installation tables
- Specifications and cost estimates

More information

Save Open

Step 1 Step 2 Step 3 Step 4 Step 5 Bill of Material

Step 1. ACES OPGW selection

Show hint

Fiber count
Select the number of fibers

Select your OPGW as a point on the graph below. You can set minimums for the MRDT or RBS that you need and the fault current capacity. If you do not know the MRDT or RBS that you need, then click on "Select OPGW by tension".

[Select OPGW by tension](#)

[Select OPGW by diameter](#)

ACES OPGW COMPLETE SYSTEM

2. Create your own optical line
in a few minutes or upload it
in Excel file

Step 1 Step 2 Step 3 Step 4 Step 5 Bill of Material

Step 2. Cable route layout

Selected: OPGW AP 36U (3x12) 15.7mm 123kA2-s 130kN

Show hint

Total number of spans

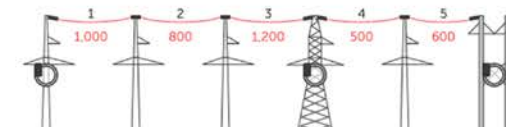
5

[Automatic arrangement of splice closures](#)

[Enter data on spans and towers using an Excel file](#)

"U-Bolt Dead-end" or "Formed Wire Dead-end?"			U-Bolt										
What type of suspension?			Bolted										
What type of grounding wire do you prefer?			Aluminium										
Length of route along the towers, ft			4,100										
Number of towers with tension clamps without splice closures, pc			0										
Number of towers with tension clamps with splice closures, pc			3 WP LT HW										
Number of towers with standart suspension clamps, pc			3 WP MP										
Number of towers with double suspension clamps, pc			0										
Span number	Span length	Tower number	OPGW fitting type [?]	OPGW suspension height, ft [?] Enter	Splice closure [?] connection scheme	Cable reserve for installation (for one cable end), ft	Type of tower [?]	Orientation of the attachment point for poles with dead-end [?]	Orientation of the attachment point for suspension poles [?]	«Free end» at the structure side or a terminal pad for bolting (2T)	Grounding clamp adapters for lattice towers	Cable service length at the end of the route, ft	OPGW construction length, ft [?] (max manufactured length - 16,372 ft) Increasing factor, % [?]
Enter values for all towers				65		500	Wood Pole	V H	P IL	2T Free	<input checked="" type="checkbox"/>		
1	1,000	0	D SS DS	65	<input checked="" type="checkbox"/>	500	Wood Pole			2T Free			4,060
2	800	1	D SS DS	65			Wood Pole		P IL	2T Free			
3	1,200	2	D SS DS	65			Metal Pole		P IL	2T Free			
4	500	3	D SS DS	65	<input checked="" type="checkbox"/>	500	Lattice Tower	V H		2T Free	<input checked="" type="checkbox"/>		2,122
5	600	4	D SS DS	65			Wood Pole		P IL	2T Free			
		5	D SS DS	65	<input checked="" type="checkbox"/>	500	"H"-Wood	V H		2T Free			

[Download the tower scheme, .xlsx](#)

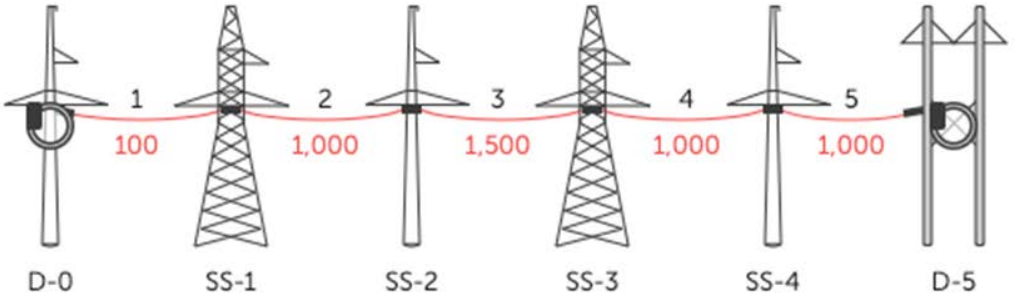


ACES OPGW COMPLETE SYSTEM

Clear visualization

Number of towers with tension clamps without splice closures, pc		0											
Number of towers with tension clamps with splice closures, pc		3		WP LT HW									
Number of towers with standart suspension clamps, pc		3		WP MP									
Number of towers with double suspension clamps, pc		0											
Span number	Span length	Tower number	OPGW fitting type [?]	OPGW suspension height, ft [?] <input checked="" type="checkbox"/> Enter	Splice closure [?] connection scheme	Cable reserve for installation (for one cable end), ft	Type of tower [?]	Orientation of the attachment point for poles with dead-end [?]	Orientation of the attachment point for suspension poles [?]	«Free end» at the structure side or a terminal pad for bolting (2T)	Grounding clamp adapters for lattice towers	Cable service length at the end of the route, ft	OPGW construction length, ft [?] (max manufactured length - 16,372 ft) Increasing factor, % [?]
Enter values for all towers				65		500	Wood Pole	V H	P IL	2T	<input checked="" type="checkbox"/>		
1	1,000	0	D SS DS	65	<input checked="" type="checkbox"/>	500	Wood Pole		P IL	2T	Free		4,060
2	800	1	D SS DS	65			Wood Pole		P IL	2T	Free		
3	1,200	2	D SS DS	65			Metal Pole		P IL	2T	Free		
4	500	3	D SS DS	65	<input checked="" type="checkbox"/>	500	Lattice Tower	V H		2T	Free	<input checked="" type="checkbox"/>	
5	600	4	D SS DS	65			Wood Pole		P IL	2T	Free		2,122
		5	D SS DS	65	<input checked="" type="checkbox"/>	500	"H"-Wood	V H		2T	Free		

[Download the tower scheme, xlsx](#)



Next step

Recommendations for project estimating purposes and may not be suitable as a final engineering work product. Contact our engineering team for assistance or to verify calculation results for your project: +1 833-344-6222 or [support@aces.com](#). Partnership with Preformed Line Products, and we very much appreciate their assistance.

ACES OPGW COMPLETE SYSTEM

3. Calculation of manufactured lengths



Automatic cable winding!

Step 1 Step 2 **Step 3** Step 4 Step 5 Bill of Material

Step 3. Calculation of manufactured lengths

[Skip this step](#)

Selected: OPGW AP 36U (3x12) 15.7mm 123kA2-s 130kN

Recommended reel

RM1-60.32.32 (reel capacity — 9,305 ft)

For automatic cable winding, select the reel and press "Automatic winding". For manual winding, drag the manufactured cable lengths onto the required reels.

Automatic winding

NRW2-58.32.28
9,436 ft

NRW2-66.36.36
12,940 ft

NRW2-72.36.36
14,787 ft

NRW2-84.42.48
18,481 ft

Choose steel reels if the reels will be stored outdoors unprotected for more than 3 – 6 months or for lengths over 20,000 ft

RM1-60.32.32
9,305 ft

RM1-66.32.36
11,529 ft

RM1-72.36.40
15,256 ft

RM1-78.36.48
15,929 ft

RMT1-84.45.42
26,634 ft

Reels with wound cable

RM1-60.32.32
9,305 ft
filled 66% free 34%
6,182 ft 3,122 ft
1 X 2 X

[Unwind all the reels](#) **Manufactured lengths**

Results of winding

OPGW manufactured length	Reel	Length, ft	Weight, lb
Manufactured length 1	RM1-60.32.32	6,182	3,765
Total		6,182	3,765

[Download winding results, pdf](#)

Next step



Calculation results from ACES are recommendations for project estimating purposes and may not be suitable as a final engineering work product. Please contact our Incab project engineering team for assistance or to verify calculation results for your project: +1 833-344-6222 or aces@incabamerica.com. ACES was developed by Incab in partnership with Preformed Line Products, and we very much appreciate their assistance.

ACES OPGW COMPLETE SYSTEM

4. Calculation of tensions and sags automatically in one click!

More information

Save Open

Step 1 Step 2 Step 3 **Step 4** Step 5 Bill of Material

Step 4. Calculation of tensions and sags

Skip this step

Selected: OPGW AP 36U (3x12) 15.7mm 123kA2-s 130kN

Standard NESC Load Conditions: [Light](#) [Change](#)

Anchor section	Calculated span			Set initial load by default			Tensile strength, lbs	Maximum sag relative to the current tower, ft	Sag after drawing, ft	Maximum horizontal sag, ft	Maximum vertical sag, ft
	Numbers of towers limiting the AS	Length of the AS, ft	Towers	Length, ft	Suspension height, ft	Initial (installation) load, lb [?]					
0-3	3,000	0-1	1,000	65-65			4,578	16.77	17.65	16.96	16.72
		1-2	800	65-65	4,055	24	4,585	10.83	11.45	11.28	10.68
		2-3	1,200	65-65			4,555	23.99	25.15	23.7	24.1
3-5	1,100	3-4	500	65-65	2,027	12	2,411	8.18	8.65	8.52	8.08
		4-5	600	65-65			2,386	11.8	12.35	12.06	11.73

Download calculation results, zip

Next step



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Optical cable
ACES
Find a Rep

Knowledge base
About us
Contacts

If you like it:
[LinkedIn](#) [Twitter](#) [Facebook](#) [Send](#)
Privacy Policy
Website creation:
made with love by Yep!, 2018

ACES OPGW COMPLETE SYSTEM

5. Download bill of materials
of cable and accessories in one
click!

ACES OPGW | Advanced Cable Engineering System

Bill of material

#	Name	Type	Code	Unit	Count	Link
1. Cables						
1.1	Optical Ground Wire	OPGW AP 36U (3x12) 15.7mm 123kA ² -s 130kN Incab America LLC	Aluminium Pipe	ft	6,182	Link
2. Optical closure						
2.1	Optical Closure for OPGW	6,5"x17" COYOTE® Dome Closure for OPGW with Stainless Steel Buffer tubes Preformed line products	COYW617S001	piece	3	Link
2.2	Splice Tray	Preformed line products	80806033	piece	6	
2.3	60 mm Heat Shrink Splice Protectors, 12 pack	Preformed line products	8003509	pack	12	
2.4	"FIBERLIGN® CABLE Storage 2 for OPGW, 60" Loop"	Preformed line products	80061195	piece	3	
2.5	"COYOTE® Defender 2 for 6,5" Dome applications, Galvanized Steel 7 Gauge"	Preformed line products	80061194	piece	3	
2.6	FIBERLIGN® Lattice Tower Clamp	Preformed line products	7000400	piece	2	Link
2.7	201 Stainless Steel Band in Tote	3/4" x .030 x 100 ft ISO Stainless	BA206T	piece	1	Link
2.8	201 Stainless Steel Buckles	3/4". 100 per Box ISO Stainless	BU256	pack	1	Link
3. Armature						
3.1	Suspension Bolted for OPGW	Cushion Clamp, Single Preformed line products	4700109	piece	3	Link
3.2	Anchor Shackle	Preformed line products	AS-5L	piece	9	
3.3	Y-Clevis Eye 90	Preformed line products	YC-5207	piece	3	Link
3.4	Grounding wire	Preformed line products	710010205	piece	9	
3.5	Lattice Tower Ground Clamp adapter	Preformed line products	700011045	piece	2	
3.6	Downlead Cushion		8003269H1	piece	16	Link

ACES ADSS

- cable selection only
- complete system (lengths, sags, loads, accessories)

The screenshot displays the Incab website interface. At the top left is the Incab logo, a colorful circle with the text "Incab" below it. In the top right corner, there are language options "Eng | Es". Below the logo, a navigation menu includes "Find a Rep", "Knowledge base", "About us", and "Contacts". A horizontal bar of icons represents various services: a gear, a key, an anchor, a utility pole, a building, a car, a house, and a gear. Below this bar, the heading "Cable selection system" is visible. Two main selection options are presented in grey boxes: "ACES ADSS complete system" and "ACES ADSS cable selection only", with a mouse cursor hovering over the latter. Below these options, there is a section titled "Optimal cable selection" with a sub-heading "Optimal cable selection" and a small icon of a cable bundle. The text below this section states: "Our engineers select the optimal cable design along with the associated accessories, including dead-ends, complete bill of materials, determine reel lengths, and plan logistics." At the bottom, contact information is provided: "For more information results for your project: aces@incabamerica.com or +1 833-344-6222".

ACES ADSS CABLE SELECTION ONLY

6 steps

to your individual datasheet:



No more awful tables!

Show hint

Is protection against rodents, including squirrels, important for you? Please characterize your level of concern:

No danger of damage by rodents

Power line voltage:

From 69 to 230 kV

Is it possible that ADSS could be within 1 ft of the phase conductors or that the cable could be in an electric field ≥ 12 kV?

Yes No

Please select fiber count: [?]

36 (3x12)

Do you know the necessary value of Maximum Rated Design Tension (MRDT)?

Yes No

Select loading conditions

Standard NESC Load Conditions

- Light
- Medium
- Heavy
- Custom

Ice thickness

0.8 in

20.3 mm

Maximum span length between structures

1,000 ft

305 m

Initial sag in the longest span, %

1

By climate map



By state and city

Alabama, Montgomery (AL)

Wind pressure

10 lb/ft²

500 Pa

Specify the maximum distance between two adjacent structures, either suspensions or dead-ends. This distance together with the installation location will determine the maximum tensile load that the ADSS will have to withstand throughout its entire service life.

Example:

10 poles. Distances between them: 750, 600, 600, 950, 750, 750, 600, 600, 750 feet. For this example, enter the distance: 950 feet (the maximum of all the distances).

Selected: InAir ADSS Aramid DJ-P-36U (3x12)-20kN

ACES ADSS CABLE SELECTION ONLY

Download your datasheet with cross section and all necessary parameters!



Aug-28-2020

Product Datasheet
fiber optic cable InAir ADSS Aramid DJ-P-36U (3x12)-20kN

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sales@incabamerica.com
www.incabamerica.com

Application and features



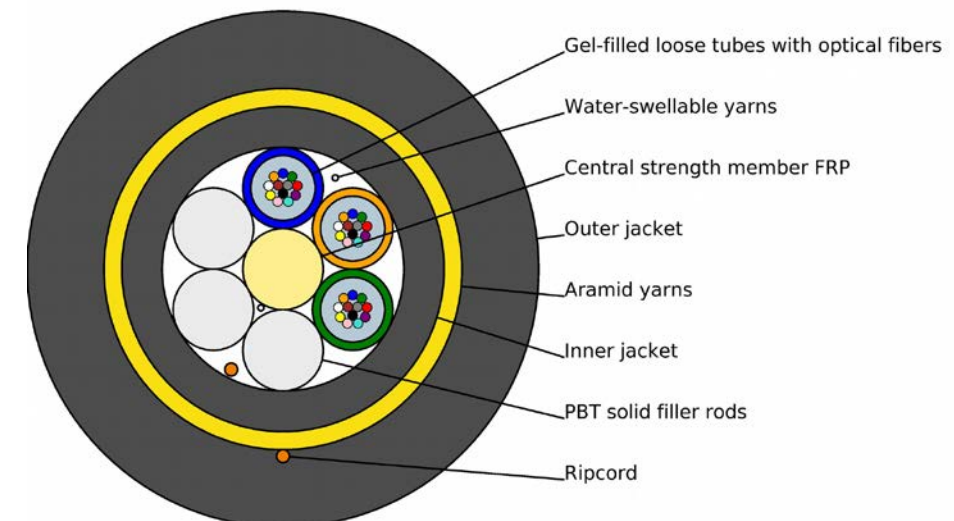
All-dielectric design



UV-resistant

As all-dielectric self-supporting (ADSS) cable for aerial installation between buildings and structures, or for cabling in ground, ducts, tubes, tunnels, manifolds, on bridges and overpasses.

Design



ACES ADSS COMPLETE SYSTEM

5 steps

to get the optimal ADSS:

1. Select ADSS design
2. Build a line with your input data

Step 1 Step 2 Step 3 Step 4 Step 5 Bill of Material

Step 2. Cable route layout

Selected: InAir ADSS Aramid DJ-P-36U (3x12)-30kN

Show hint

Total number of spans

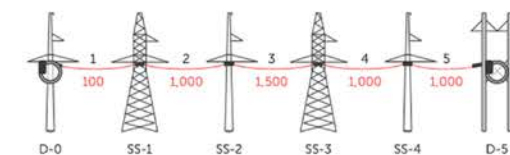
5

[Automatic arrangement of splice closures](#)

[Enter data on spans and towers using an Excel file](#)

Length of route along the towers, ft		4,600									
Number of towers with tension clamps without splice closures, pc		0									
Number of towers with tension clamps with splice closures, pc		2									
Number of towers with standart suspension clamps, pc		4									
Number of towers with double suspension clamps, pc		0									
Span number	Span length	Tower number	ADSS fitting type [?]	ADSS suspension height, ft [?] Enter	Splice closure [?]	Cable reserve for installation (for one cable end), ft	Type of tower [?]	Orientation of the attachment point for poles with dead-end [?]	Orientation of the attachment point for suspension poles [?]	Cable service length at the end of the route, ft	ADSS construction length, ft [?] (max manufactured length - 26,247 ft)
Enter values for all towers				65	<input type="checkbox"/>	500	Wood Pole	V H	P IL		Increasing factor, % [?] 2
1	100	0	D SS DS	65	<input checked="" type="checkbox"/>	500	Wood Pole				5,692
2	1,000	1	D SS DS	65			Lattice Tower		P IL		
3	1,500	2	D SS DS	65			Wood Pole		P IL		
4	1,000	3	D SS DS	65			Lattice Tower		P IL		
5	1,000	4	D SS DS	65			Wood Pole		P IL		
		5	D SS DS	65	<input checked="" type="checkbox"/>	500	H-Wood	V H			

[Download the tower scheme, xlsx](#)



Next step

ACES ADSS COMPLETE SYSTEM

3. Calculation of manufactured lengths

Step 1 Step 2 **Step 3** Step 4 Step 5 Bill of Material

Step 3. Calculation of manufactured lengths

[Skip this step](#)

Selected: InAir ADSS Aramid DJ-P-36U (3x12)-30kN

Recommended reel

NRW2-58.32.28 (reel capacity — 10,155 ft)

For automatic cable winding, select the reel and press "Automatic winding". For manual winding, drag the manufactured cable lengths onto the required reels.

Automatic winding

NRW2-58.32.28
10,155 ft

NRW2-66.36.36
13,938 ft

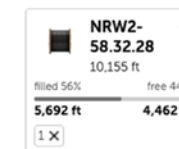
NRW2-72.36.36
18,373 ft

NRW2-84.42.48
26,342 ft

Reels with wound cable

[Unwind all the reels](#)

Manufactured lengths



Results of winding

OPGW manufactured length	Reel	Length, ft	Weight, lb
Manufactured length 1	NRW2-58.32.28	5,692	1,016
Total		5,692	1,016

[Download winding results, pdf](#)

Next step



Calculation results from ACES are recommendations for project estimating purposes and may not be suitable as a final engineering work product. Please contact our Incab project engineering team for assistance or to verify calculation results for your project: +1 833-344-6222 or aces@incabamerica.com. ACES was developed by Incab in partnership with Preformed Line Products, and we very much appreciate their assistance.

ACES ADSS COMPLETE SYSTEM

4. Calculation of tensions and sags automatically in one click!

Step 1 Step 2 Step 3 **Step 4** Step 5 Bill of Material

Step 4. Calculation of tensions and sags

[Skip this step](#)

Selected: InAir ADSS Aramid DJ-P-36U (3x12)-30kN

Standard NESC Load Conditions: **Custom**. [Change](#)

Anchor section	Calculated span			Set initial load by default			Tensile strength, lbs	Maximum sag relative to the current tower, ft	Sag after drawing, ft	Maximum horizontal sag, ft	Maximum vertical sag, ft	
	Numbers of towers limiting the AS	Length of the AS, ft	Towers	Length, ft	Suspension height, ft	Initial (installation) load, lb [?]						Initial sag in the longest span of the AS, ft
0-5	4,600	0-1	100	65-65			1,585	1.5	0.19	1.17	1.4	
		1-2	1,000	65-65			4,806	43.89	16.31	35.65	41.21	
		2-3	1,500	65-65	1,109	30	2	5,925	77.65	34.47	62.72	73.65
		3-4	1,000	65-65				4,806	43.89	16.31	35.65	41.21
		4-5	1,000	65-65				4,806	43.89	16.31	35.65	41.21

[Download calculation results, zip](#)

Next step



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ACES ADSS COMPLETE SYSTEM

5. Download bill of materials
of cable and accessories in one
click!

ACES ADSS

Advanced Cable
Engineering System

Vibration damping scheme

ADSS type: InAir ADSS Aramid DJ-P-36U (3x12)-30kN

List of vibration dampers

Anchor section. Numbers of towers limiting the anchor section	Numbers of towers limiting the span	Span length, ft	Mean operating tension, lb	Number of SVDs in the span	SVD type
1 0 - 1	0 - 1	100	1,109	2	50509862
	1 - 2	1,000		4	50509862
	2 - 3	1,500		4	50509862
	3 - 4	1,000		4	50509862
	4 - 5	1,000		4	50509862
TOTAL:				18	

Note:

Install SVDs according to the installation instruction.

ACES ADSS COMPLETE SYSTEM

Save your project or open the saved one.

You can share it with other users, too.

The screenshot shows the web application interface for the ACES ADSS complete system. At the top, there is a navigation bar with the Incab logo and a search icon. Below the navigation bar, there are several icons representing different features or tools. The main content area is titled "ACES ADSS complete system" and includes a sub-header with tabs for "ACES OPGW complete system", "ACES OPGW cable selection only", "ACES ADSS complete system" (which is selected), and "ACES ADSS cable selection only". A welcome message follows, explaining the purpose of the tool and providing contact information. Below this, there is a "More information" section with "Save" and "Open" buttons. A "Step 1" and "Step 2" progress indicator is visible. A "Bill of Material" section includes a "Calculate" button and a "Specification, pdf" download link. An "Open" dialog box is open, showing a form with a "Project code:" field and an "OPEN" button. At the bottom, there are logos for Incab and PIP, along with a disclaimer and contact information.

Eng | Es

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ACES ADSS complete system

ACES OPGW complete system ACES OPGW cable selection only **ACES ADSS complete system** ACES ADSS cable selection only

Welcome to Advanced Cable Engineering System (ACES), a unique software tool designed for automatic selection of the required ADSS cable design. By answering a few questions, it will help you choose the optimal ADSS design to your requirements. Please contact aces@incabamerica.com or +1 833-344-6222 if you have questions or requests related to the configurator. In email subject, please specify ACES ADSS. In addition, ACES ADSS will help you perform mechanical calculations, select suitable fittings and dampers.

More information

Save Open

Step 1 Step 2

Bill of Material

Calculate

↓ Specification, pdf

Open

Name	Share	Actions
Project code:	<input type="text"/>	<input type="button" value="OPEN"/>

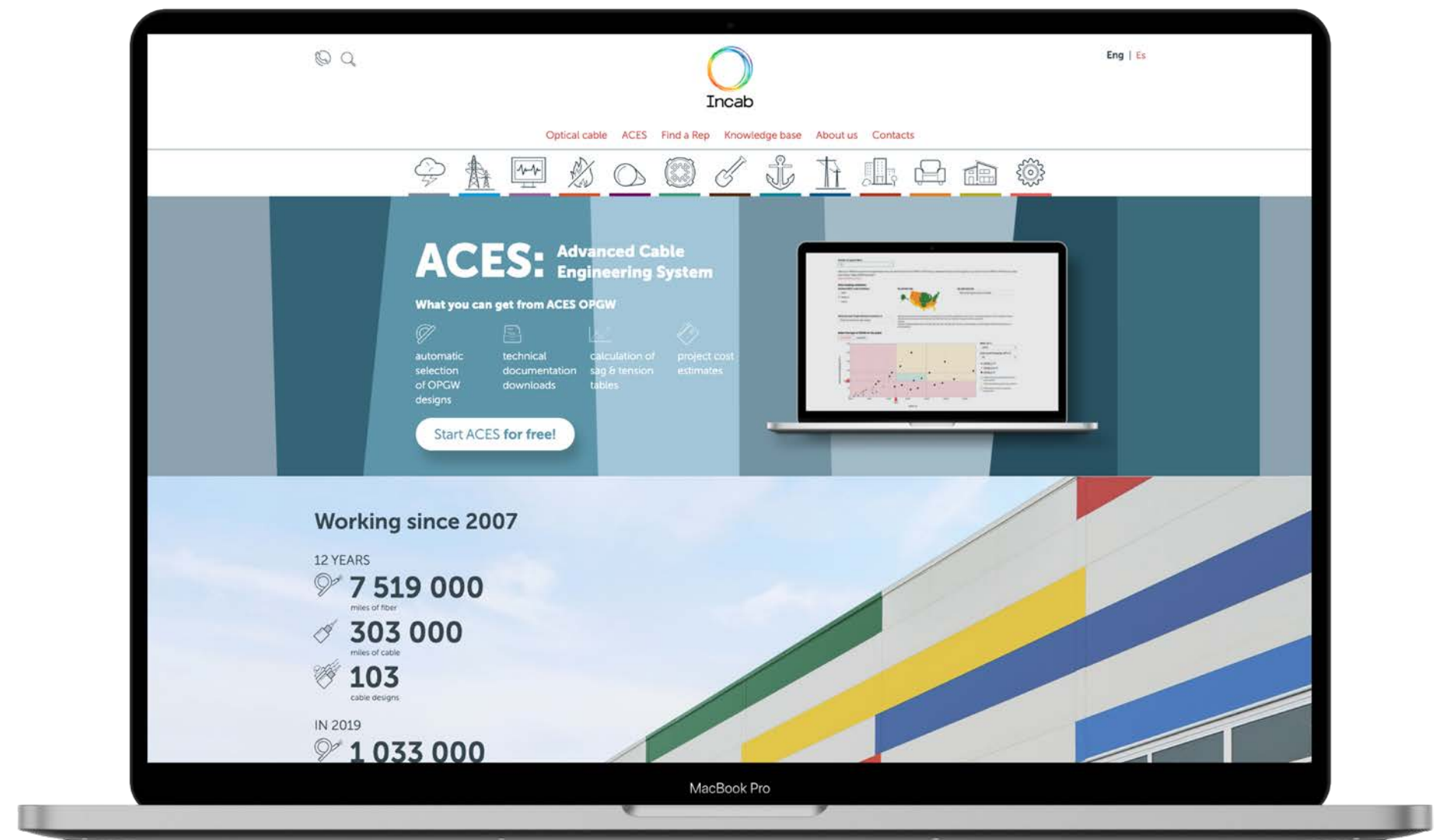
Incab PIP

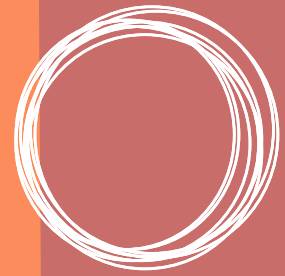
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ACES ADVANCED CABLE ENGINEERING SYSTEM

Give it a go!

Start ACES





Incab

We'll appreciate your
feedback about software



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