PRESS KIT

LISA AIRPLANES AKOYA





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LISA AIRPLANES

A French manufacturer with multiple innovations

LISA Airplanes - a French company - creates, produces and distributes a new generation of high end aircraft, which suggests a change in lifestyle.

The founders, Erick HERZBERGER, Luc BERNOLE and Benoit SENELLART, have set up the company in with the aim to revolutionize light aviation thanks to major innovations and a unique design.

The founders brought together a team of men and women from extremely diverse professional backgrounds encouraging out of the box thinking.

Despite the company's relative youth, LISA Airplanes has managed to make its mark in the sector as an avant-garde company that has transcended the traditional boundaries of aviation. It has already marked the history of aviation in 2011, thanks to the inaugural flight of a seaplane that took off using the Seafoils technology – aeronautical adaptation of hydrofoils - and that was only the beginning of a remarkable venture.













GOAL & VALUES

Inspired by the unbridled freedom of the skies and man's desire for ever greater independence, we create unique planes that are forged from our dreams and our imagination. Our approach is an enterprising one that combines very different fields of expertise, enabling us to innovate and develop advanced technologies to create a new form of travel that is both an exceptional and sensational

OUR ENTERPRISING APPROACH IS WHAT MAKES THE DIFFERENCE

This is what inspires us to pursue our dreams and create designs that many would believe impossible. It also inspires us to cast aside preconceptions and develop truly different products.

OUR FRENCH ROOTS

Inspired by the courage of the pioneering men and women in the history of French aviation, we are continuing their pioneering work using technology and innovation to take to the air. Designed and produced in France, our products reflect our roots, combining the latest aeronautical technology with a typically French elegance.

A DREAM OF FREEDOM

This is an inherent part of the DNA of everyone who loves flying. It guides our designs and inspires us to innovate and adopt an innovative approach to travel.

ARTISTIC INSPIRATION

We are inspired by contemporary art and streamlined contemporary designs. Our primary aim is to create aesthetically attractive forms that are inspirational and immediately arouse a desire for travel.

NURTURING A SENSE OF WELL-BEING

Well-being is not merely a question of comfort. All the senses must be stimulated for a truly immersive experience. We strive to ensure that all of our products enhance this sensation.

THE FRUIT OF PERSEVERANCE

Developing and producing well-designed aircraft requires great conviction, patience, and perseverance the very qualities that make our designs so successful.

THE ART OF SIMPLICITY

We develop complex technologies and innovations. This makes it even more challenging to meet our goal of making them intuitive and easy to use, because we believe that simplicity is perfection.

TOMORROW'S TRAVEL

Future transportation will have to adapt to man's universal desire to travel and come together, while reducing the environmental footprint. These considerations have inspired us to develop the "Point-to-Point" and "Multi-Access" aviation concepts.



FRENCH-BUILT AIRCRAFT

LISA Airplanes develops its aircraft on the Savoie Technolac technology park, between Chambéry and Aix-les-Bains, next to Chambéry-Savoie airport and Lake Bourget at the feet of the French Alps. This location is ideal to develop a Multi-Access aircraft and to train the AKOYA's owner

LISA relies on a network of subcontractors highly specialized in aeronautical and composite materials to produce all the aircraft parts.

In addition to the rigor, precision, and quality of finish provided by these subcontractors, the geographical proximity with the suppliers makes it possible to carry out regular checks and quality control before assembling and flight testing each aircraft at LISA's headquarter.

AN INTERNATIONAL HIGH-END MARKET

LISA Airplanes claims a special place in the world aviation and wants to be associated to marine and luxury environments.

Its offer is addressed to both aviation enthusiasts and outstanding recreations lovers, who have a strong desire for freedom.

LISA's customers are seduced by the wide range of places accessible with the AKOYA and come from all over the world. North America, where the aviation community is huge, is the main market for the AKOYA. Asia with the emerging Chinese market represents an impressive potential for the French company. AKOYA meets with great success in its homeland Europe as well, where the variety of terrain and climates offers an excellent playground for this amphibious skiplane. At last, a large part of LISA's request comes from small or big islands all over the world, where the enhanced mobility offered by the AKOYA brings a real change in lifestyle.

Therefore, the company is working with collaborators from many countries and participates in international exhibitions such as the Monaco Yacht Show, Aero Friedrichshafen in Germany or the well-known US event: EAA Airventure Oshkosh, the world's biggest light aviation show. Since 2014, LISA also participates in events in China.







KEY DATES

2004

LISA Airplanes is created

2006

Launch of AKOYA program

2007

AKOYA first flight

August 2007, 22nd, departing from Chambery Savoie Airport, the AKOYA made its first flight directed by Gerald Ducoin, its test pilot.

2009 - 2010

Launch of pre-serial phase

Manufacturing & assembly of AKOYA pre-serial prototype

2011

SEAPLANE WORLD PREMIERE 1st flight from Lake Bourget

1st seaplane in the world to take-off and land on water thanks to the Seafoils technology (hydrofoils).

2012

1st exhibition on the US market at EAA Airventure Oshkosh, WI, USA

The AKOYA takes its first passengers onboard.

2013

LISA Airplanes SA becomes LISA Aeronautics SAS

2014

LISA prepares the industrialization of the aircraft AKOYA.

1st presentation of the aircraft on the Chinese market.

2016 - 2017

Design of the optimized version of the Multi-Access technology.

Flight test program and certification preparation.



AKOYAAT A GLANCE

- Top-of-the-range two-seat airplane
- The only aircraft able to land on LAND, WATER and SNOW without any prior modification
- Seafoils (LISA Airplanes' exclusivity) bring agility, comfort and safety on water
- The Seafoils create the first seaplane with high-performance in the air
- Skis-in on retractable gear allow landing on snow
- Folding wings to stow the aircraft in a garage or on a yacht
- Landing and take-off in 650 feet
- Panoramic vision at 180°
- Glass cockpit
- Emergency airframe parachute for safety
- Consumption at economic cruise speed: 5,6L/100km 42MPG
- Maximum speed: 250 km/h 155mph
- Maximum Range: 2,000 km 1,250 miles (at economic cruise speed)





A LIGHT AIRCRAFT THAT IS UNIQUE IN THE WORLD

A harmonious marriage of impressive performances and an elegant form, sleek aerodynamic lines and unrivalled versatility, LISA has reinvented light aviation with the AKOYA.

The AKOYA is a two-seater amphibious airplane that takes its passengers on water, land or snow and can be stored or transported easily thanks to its folding wings. In addition to its unrivalled versatility, the AKOYA has exceptionally sleek aerodynamic lines, making it the world's best performing aircraft. Range, speed, fuel consumption, no compromise were allowed. AKOYA flies 1,250 miles away (2,000 km) thanks to its impressive fuel efficiency of 42MPG (5.6L/100km) and can reach the speed of 135kts (250km/h).

The AKOYA is classed in the LSA (Light Sport Aircraft) category, established in the USA in 2005 and recently adopted in Europe. This category lies between ultralight aircraft and classic certified aircraft. The LSA regulations are recognized or are being adopted, in most of the world. More flexible than certified aviation, the LSA provides pilots with freedom and comfort, as they can benefit from many technological innovations. Although it is "classed" in this category, the AKOYA is really in a special category of its own—justified by its versatility, performances, comfort, and passive safety features, which are far more exacting than other aircraft in the LSA category—and therefore constitutes an entirely new and high-end lightweight LSA category.



AN AMAZING VERSATILITY FOR AN ABSOLUTE FREEDOM

MULTI-ACCESS: WATER, LAND AND SNOW

The patented Multi-Access technology enables the AKOYA to land with the same agility on water, land or snow without any prior modification of the aircraft. This unique innovation is based on a combination of retractable landing gear, Seafoils and Skis-in. Thus, for those who possess an AKOYA, taking-off near your yacht, flying to your private property, or changing direction mid-flight and visiting snowy surfaces is now possible.

AKOYA brings flying lovers and water enthusiasts together. The Multi-Access guarantees a real pleasure to pilots by gathering in one aicraft unseen versatility and outstanding performance in the air.

SEAFOILS

Unlike other seaplanes, the AKOYA has neither a conventional hull nor step. There are no break lines, no joints in its aerodynamic fuselage, enabling it to achieve flight performances that are unprecedented in the seaplane industry, while giving it an eye catching design.

Designed like "aquatic fins," the "Seafoils," like hydrofoils used on boats, raise the fuselage above the water at very low speeds, enabling

take-off over short distances. When the aircraft is taking off from the water, the "Seafoils" buffer the effect of the lapping waves, providing unrivalled comfort and giving the plane a high degree of stability, even on rough seas. The AKOYA can therefore take off in much more varied sea conditions than amphibious planes fitted with standard floats or hulls.

RETRACTABLE LANDING GEAR WITH SKIS – SKIS-IN

Fly from dry land to snow-covered terrain: the AKOYA's versatile landing gear is another facet of the patented "Multi-Access" technology. Fitted with wheels and skis, the AKOYA can land on every type of terrain.

In flight, the pilot can choose to land on dry or snow surfaces with safety and easiness. No previous handling is required. Furthermore, the AKOYA's landing and take-off distance of only 650 ft, combined with the versatility of its landing gear, make the most inaccessible places accessible.

FOLDING WINGS

The AKOYA can be stored in a garage thanks to its folding wings. They also enables the aircraft to be easily trailered or stored on a yacht deck or, quite simply, take up less space in a hangar. The process is extremely safe and easy, and can be completed by one person in only two minutes.







UNEQUALLED PERFORMANCE

A LIGHT AND AERODYNAMIC FRAMEWORK

The AKOYA's smooth and flowing lines were engineered for better aerodynamics. Its carbon frame is both strong and very lightweight. These features allow the aircraft to get much better performance than other seaplanes.

135KTS, A RANGE OF 2,000 KM - 1,250 MILES AND A VERY LOW FUEL CONSUMPTION

The AKOYA has a range of 2,000 km - 1,250 miles thanks to its low fuel consumption (4MPG, 5,6L/100km) – which is up to 2 times less fuel than most of other airplanes – and maximum speed of 250km/h (135 kts – 155mph) offering its passengers a wide range of possible destinations. Perhaps therein lies the main constraint of the owner of an AKOYA: choose his next destination!

AN "ALL TERRAIN" PLANE FOR PERFORMANCE WITHOUT COMPROMISE

Unlike other seaplanes and amphibious aircraft, the AKOYA is equipped with Seafoils that do not affect the aerodynamics of the aircraft. So the AKOYA becomes the first aircraft that's both agile on the water and fast in the air.



155 mph max. speed

1250 miles range

42 MPG fuel consumption

550 lbs useful load

OUTSTANDING DESIGN AND COMFORT

Streamlined forms, graceful curves, noble materials, and a touch of color all come together to create an aircraft with an understated and dynamic appearance. For LISA Airplanes performance and aesthetic appeal are equally important. The AKOYA benefits from all the comfort and safety equipment that usually feature on a high-end aircraft, while keeping a control panel that is simple, sober, intuitive and elegant.

COCKPIT: COMFORT AND STYLE

Because flying should be fun, LISA Airplanes engineered the AKOYA to be functional. The cockpit was developed by LISA Airplanes' designers to give ultimate comfort while facilitating flying: a spacious cabin, comfortable and ergonomic seats, designs and materials carefully selected to blend esthetics and comfort in any season.

A PANORAMIC VIEW

To enjoy every flight in the AKOYA, its tinted canopy tinted canopy, in front of the wing, gives a full 180° view, without anything obstructing the sight.













OPTIMUM SAFETY

ANTICIPATION OF OBSTACLES

The panoramic view offered by the Akoya's canopy facilitates visual flight (the common practice in light aircraft), providing ageneral view of the airspace around.

AN EXTENDED RANGE OF ACTION

The sleek aerodynamics of the AKOYA makes it insensitive to wind gusts and gives it an excellent lift-to-drag ratio. As a result, in case of engine failure, the pilot has a superior range of action in which to find suitable landing field. In addition, thanks to the Multi-Access technology, the potential landing areas are tripled: water, land or snow.

WATER, LAND, SNOW, THE SAME FLYING APPROACH

Thanks to the AKOYA's design and conventional landing gear, the pilot can hold the same pitch attitude and have the same visual references during take-off and landing, whether on water, land, or snow. This homogeneity eliminates the flight complexity generally associated with polyvalent aircraft.

REGULATIONS & QUALITY STANDARDS

The AKOYA is designed and manufactured to comply with the European Aviation Safety Agency's Certification Specification – CS-LSA standards - and its American counterpart the FAA - S-LSA standards The framework and mechanical components of the AKOYA are made by manufacturers specialized in aviation. Quality control and monitoring of the planes are conducted in LISA Airplanes' final assembly hangar, ensuring optimal quality and reliability.



PORTRAIT

Airplane dimensions			
In flight : wings extended			
Length	7.00 m	23.00 ft	0 ft
Wing span	10.90 m	35.80 ft	
Height (including propeller)	2.30 m	7.50 ft	
Parked: with wings folded			
Length	7.90 m	25.90 ft	
Width	3.90 m	12.80 ft	
Height (including propeller)	2.30 m	7.50 ft	

Cockpit dimensions		
Length	1.70 m	5.60 ft
Elbow width	1.30 m	4.30 ft
Cockpit will comfortably accommodate pilots who are 1.50 to 2.00m (4'11" - 6'6") tall		

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Airplane weight		
Maximum take-off weight	650 kg	1,430 lbs
Useful load (depending optio	ns) 240 kg	530 lbs

Performance			
Vmax	250 km/h	135 knots	155 mph
Vmax (S-LSA)	222 km/h	120 knots	138 mph
Vc (cruising speed) (CS-LSA)	230 km/h	124 knots	143 mph
Vc (cruising speed) (S-LSA)	214 km/h	116 knots	133 mph
Vce (economy cruising speed)	191 km/h	103 knots	118 mph
Vs1 (stalling speed with flaps retracted)	83 km/h	45 knots	52.80 mph
Fuel consumption			
(Unleaded 91 octane or 100LL)	5.6 l / 100 km	11 L/h	42 MPG
Take-off and landing distance	200 m	650 ft	
Climb rate	7 m/s	1,400 ft/min	
Maximum load factor	+4 / -2 G		

Flying range			
at Vce	1,250 km	670 NM	750 miles
at Vce (with optional 29 gal-110L tank)	2,000 km	1,080 NM	1,250 miles

Note: All data is preliminary and subject to validation







DESCRIPTION & ÉQUIPEMENTS

High Performance Structure

Similar to race cars & boats: high-strength carbon with a sleek surface
High quality mechanical systems of titanium and aluminum
Corrosion and UV resistant

Patented Multi-Access Water, Ground and Snow capabilities

Patented Seafoils

Conventional landing gear, electrically retractable - suitable for salt water operation

Skis-in snow skis retractable with the landing gear

Fail-safe and easy-folding wings (manual standard, electrical optional)

Mooring and towing hooks

Unmatched Comfort

Electrically operated tinted canopy

Fully adjustable cockpit (backrests, headrests and rudder pedals)

Dual flight controls

Ventilation, heating and glass de-fogging system

Integrated steps on the Seafoils for easy access

Spacious baggage compartment for 2 suitcases and sports equipment

12V power outlet, charts pocket, headset supports and jacket hook

Fully Customizable Cockpit

Whole cockpit lined with customizable high-end materials (e.g leather, nubuck, special coating, large selection of colors,...)

Extensive choice of colors for aircraft colors (pearl or glossy finish)

Total Safety

Emergency airframe parachute system

Water/Runway safety selector – landing gear con guration audible/visual alerting system

Automatic landing gear extension in emergency mode

Folding wings with secure mechanical lock, without disconnection of flight controls, and

with wing con guration and locking indicator display

Canopy emergency release

4-point seat belts

Differential braking system in rudder pedals and hydraulic disc brakes

Parking brake

406 MHz Emergency Locator Transmitter

Reliable Engine Power Unit

Rotax 912 ULS 4-stroke and 4-cylinder 100hp power engine

18 to 29 US gallons tank (70L to 110L) and electric fuel pump

Electric starter, carburetor heat, cowl flap

Stainless steel exhaust muffler

Reinforced fixed pitch three-bladed ground adjustable propeller

Position and anti-collision lights

Instrumentation

10" Glass Cockpit with EFIS, EMS, GPS navigation system with aeronautical charts, 3D

synthetic terrain vision, and second battery

Analog instruments: Altimeter I airspeed indicator

Communications: Mode-S Transponder | VHF - Radio with intercom

AKOYA 1ST STEP TOWARDS A CLEAN A SILENT AIRCRAFT

Sensitive about the environmental issues, LISA Airplanes comes within a sustainable mobility approach during research and development activities. Designing the AKOYA was leaded by the willingness to create an airplane that consumes less. With only 5,6 liters per 100 km (42 MPG), the AKOYA flies further and outreach the range usually seen in light aviation.

LISA Airplanes' involvement in sustainable mobility is more than ever a step towards the future. LISA aspires to offer a light aviation that respects the environment.

The work already done to reduce the need in energy for the AKOYA at the maximum is a crucial milestone. LISA will use these assets to design a range of electric aircraft.



By LISA AIRPLANES www.lisa-airplanes.com