

Alpha Electro

ALPHA ELECTRO IS FOR YOU BECAUSE YOU ARE LOOKING FOR

A revolutionary airplane capable of flying with 1 EUR energy cost per hour. No engine rumble in the cockpit, no need for headsets, no annoyance to the neighbourhood.

An airplane as simple to charge and use as a cell phone.

Becoming a trendsetter and being different from the others by flying electric!

DESCRIPTION

The greenest way of learning to fly!

Alpha Electro is a 2-seat electric trainer with performance which is tailored to the needs of flight schools. It has short take-off distance, powerful 1000+ fpm climb capability and an endurance of one hour plus a 30-minute reserve. The Alpha Electro is optimized for traffic-pattern operations, where up to 13% of energy is recuperated on every approach, increasing operations range and at the same time enabling short-field landings.

With the ever-growing cost of fuel, it is time to rethink pilot training. Our solution is the first practical all-electric trainer. Technologies which we developed in house specially for this aircraft cut the cost of ab-initio pilot training by as much as 70%, making flying more affordable than ever before.

Being able to conduct training on smaller airfields closer to towns with zero CO2 emissions and minimum noise is also a game changer! Alpha Electro meets microflight and ASTM LSA requirements, as well as standards for electric propulsion systems. In certain countries it is already approved for PPL training, and we are adding more countries to the list constantly. Pipistrel is working with the FAA to approve an exemption to allow pilot training operations and the application for the EASA Type certification has been made.

Every single element of aircraft has been refined to be lighter, more efficient and more reliable than before. The 60+ kW electric motor only weighs 20 kg and is more powerful than the popular Rotax 912 series, typically used on microlights and LSAs. The 21 kWh battery pack is dual-redundant and designed to be either quickly replaceable within minutes or charged in less than one hour, thanks to the next generation of Pipistrel's Battery Management technology. The airframe uses proven features from hundreds of Pipistrel's aircraft flying worldwide.

TECHNICAL CHARACTERISTICS

TECHNICAL DATA PIPISTREL ALPHA ELECTRO	
ENGINE	Pipistrel PEM 60MVL/C
max power	60 kW 1 min, Cruise 50 kW @ 2100 - 2400 rpm
PROPELLER	
ground adjustable three-blade 1.64 m diameter propeller	
DIMENSIONS	
wing span	34' 6" (10.5 m)
length	27' 4" (8.5 m)
height	6' 9" (2.05 m)
wing area	102.4 sqft (9.51 m ²)
rudder area	11.8 sqft (1.1 m ²)
tail area	11.6 sqft (1.08 m ²)
aspect ratio	11.8
positive flaps	0°, 15°, 25°
centre of gravity	20% - 38% MAC
WEIGHTS	
basic empty weight - with batteries	368 kg
max take off weight (MTOW)	472.5 - 550 kg (LSA)
Payload	182 kg
PERFORMANCE	
DATA PUBLISHED FOR MTOW 1,212 lbs (550 kg) All speeds in Knots	
stall with flaps	38 KCAS
stall without flaps	45 KCAS
cruising speed (75% power)	85 KIAS
maximum horizontal speed at sea level	100 + KIAS
VNE	135 KIAS
max speed with flaps down	70 KIAS
manoeuvring speed	86 KIAS
best climb speed	76 KIAS
max climb rate	1,220 fpm
best glide ratio speed	64 KIAS
best glide	15:1
take off run - grass	555 feet
take off over 50' obstacle - grass	870 feet
service ceiling	12,800 feet
45°-45° roll time	2.6 sec
endurance	up to 60 minutes (plus reserve)
cruise range distance	75 NM
max load factor permitted @ (1.875)	+4g -2g
design safety factors & tested	minimum 1.875
Note: Data is for sea level, Hard runway, ISA conditions. Pipistrel reserves the right to revise this data sheet whenever occasioned by product improvement, government/authority regulations or other good cause.	