



PIPISTREL ELECTRO FAQ's

This guide is an attempt to sum up various questions people may have about Pipistrel ELECTRO aircraft.

How long will the aircraft fly typically in circuits?

Up to 60 min + reserve. For LSA Aircraft the reserve is 20 minutes.

How long will the aircraft fly at cruise/cross-country?

45minutes @18kW and 75 kts IAS

How long does it typically take to charge the batteries with the different chargers?

(20%-95% range) 6hrs with 3kW charger, 1h 40' with 10 kW charger, 1h 5' with 14 kW, 45 minutes with the 20 kW charger

What are the temperature limitations for flying in cold weather / hot weather?

There is no limitation in the POH. +39 °C ambient air temperature due to battery cooling and airflow for cooling

Will I overheat when I am taxiing in hot weather? No, not if you follow the POH procedures

How long will the batteries last, what is their lifespan in years and charge cycles before the batteries drop to 75% of the original capacity?

17 years. 700 to 1200 cycles depending on careful operation according to POH.

Can I add extra batteries to get more range when I am flying? No

How long does it take to remove the batteries for storage? Less than 5 minutes

How heavy are the batteries and can I swap them over myself?

Each battery pack is 53 kg. Yes, you can remove the pack with no extra help

What is the luggage capacity the aircraft?

There is no luggage compartment. Convenience luggage can be stored in the side pockets on the instrument panel.

Are there any special maintenance requirements for an electric aircraft?

Electric motor overhaul is 2,000 hrs. (Total life is 6,000 hrs.) Regular 100 hourly airframe inspections are required including some light maintenance on tyres, brakes and the cooling system.

Who can work on the engine for regular maintenance?

There is no regular maintenance on the motor required, the first maintenance requirement is the 2,000-hour TBO service

How long will the engine last and who can do servicing?

The motor lasts 6,000 hrs (2,000 x 3 service series). Pipistrel can perform the servicing.

Why are electric aircraft priced as they are?

Because you are buying all the fuel upfront with the aircraft purchase (the cost of the batteries) and because of low production numbers compared to the auto industry and the battery costs

What charger can I take with me in the aircraft so I can go on a trip and recharge from different airports? At this time, none

What are the chances of an electrical fire?

Extremely remote 10 to the power of 8

Are there any special precautions taken to stop me getting electrocuted especially during servicing?

Yes. There is an isolation monitor device built into the airplane. It measures the voltage difference between the two battery packs and prevents the system to power up if this difference is higher than a certain level.

What are the volts and amps that the engine runs at?

The motor operates at 325 V and 240 A. Batteries 400V. Unless really cold the system will supply full power even with low battery SOC

Can I use a different charger when I am travelling, perhaps a charger for an electric vehicle? No. Pipistrel aircraft run a dedicated charger that communicates via proprietary CAN-bus protocol with the main computer and the BMS for optimized charging

What is the warranty on the electrical propulsion system? All Pipistrel aircraft have a 2 years / 100 hrs. warranty (whatever comes first)

Does the ALPHA Electro have cabin heating system? No

Who is the motor producer?

Pipistrel. The base motor before extensive modification is Emrax (cooling, mechanical parts)

How much power can you recuperate in circuit?

Theoretically 13%

What kind of batteries are installed?

Lithium ion. Cells are manufacturer by Samsung. Battery box design and assembly is Pipistrel, Battery Management System (BMS) is also designed and manufactured by Pipistrel

Is any sort of hybrid version planned? No

What infrastructure do I need at the airport for charging?

The charger comes with a prepared and marked supply wire, you can wire a connector according to the country of operation. The 20kW charger will require a 32AMP 3 Phase outlet

Can I use solar panels for charging?

Yes, installed on the roof of the hangar with a proper storage unit

Is there the possibility to install solar panels on the wings?

The wing surface is so small that there are not enough benefits, it simply can't be justified

Can I do aerobatics, spins in a Pipistrel ELECTRO?

The Pipistrel ALPHA ELECTRO design follows the strictest UL & ASTM LSA certification standards, as well as their FAA FAR counterparts and the ASTM standards for LSA aircraft. More than six months of ground, structural and vibration tests went by without a glitch, followed by an extensive flight test program with more than 100 hours of cumulative tests. The Pipistrel ALPHA ELECTRO aircraft was designed for the training market but still offers exceptional and sprightly performance. The aircraft is however not suitable for aerobatics, despite the +4 G, -2 G allowable loads. Pipistrel cannot prevent people doing aerobatic maneuvers in the Pipistrel ALPHA ELECTRO, but we do not approve it – the reason is in aerodynamics. The Pipistrel ALPHA ELECTRO has so little drag that it picks up speed MUCH quicker than other aircraft with little drag. This can be dangerous in aerobatic maneuvers (also spins, which are completely recoverable) and an average pilot can very quickly overstress the airframe because the VNE can be exceeded in a steep dive in just 5 seconds!

Can I have an in-flight adjustable or feathering propeller?

No, the Pipistrel ALPHA ELECTRO is only offered with a special fixed pitch regenerative propeller, it is designed as a training aircraft.

Can I fit airbrakes or spoilers?

Yes, the Pipistrel ALPHA ELECTRO can be fitted with electrically activated airbrakes that can operate automatically on flap deployment.

Can I change the instruments?

No, to keep the cost of the Pipistrel ALPHA ELECTRO as low as possible the aircraft is only available in a set instrument configuration. One set configuration for USA and Australia (LSA) markets and another set configuration for Europe.

What is the Pipistrel ALPHA ELECTRO warranty?

The warranty on Pipistrel aircraft is 12 months or 100 hours whichever comes earlier. A full copy of the warranty conditions is available on request.

Wingspan and wing removal

The wingspan of the Pipistrel ALPHA ELECTRO is 34' 6" (10.5 m) which is 18" (0.5 m) less than a Cessna 172. The wings can be removed in around 15 minutes.

What is the cost to overhaul the electric motor at 2000 hours?

AUD \$3900

What is the cost of replacing the electric motor at 6000 hours?

AUD \$16900 + cost of refit.

What is the cost of replacing the batteries as a complete set (or spare set)?

The cost as of October 2022 is AUD\$31500

What is the cost of replacing the battery cells in my existing battery boxes (exchange)?

The cost as of October 2022 is AUD\$21900