



RED AIRCRAFT TECHNOLOGY WILL POWER AIRLANDER 10

News / Manufacturer



RED Aircraft have been working closely with Hybrid Air Vehicles Ltd to provide the technology to power Airlander 10. The [RED A03](#) engines will be used in the base configuration of the aircraft, using four of its ultra-efficient piston engines. Airlander 10 is set to deliver up to a 75% reduction in emissions over comparable aircraft in similar roles.

Utilising a combination of buoyant lift from helium with aerodynamic lift and vectored thrust, [Airlander](#) 10 creates significant efficiency over conventional aircraft and helicopters.

The RED A03 combustion engines have been selected for Airlander 10. Created from a clean-sheet design, the engine provides ultra-efficient power and performance.



The RED A03 drives many environmental benefits when compared with other equivalent propulsion solutions. Characterised by significantly lower CO₂ emissions, the RED A03 is also an optimal platform for the development of hybrid-electric aircraft installations.

High thermodynamic efficiency drives low fuel consumption. Optimised combustion results in reduced exhaust emissions. Low exhaust noise stems from intelligent engine architecture.

The RED A03 ecological features are

- Low fuel burn
- Low exhaust gas pollution
- Reduced noise emissions
- High thermodynamic efficiency
- Type Certified at EASA TC.E.150 and FAA

Jürgen Schwarz Head of Commercial commented: "Airlander is the next step towards a greener future, combining our engine with the innovative characteristics of Airlander has created a significantly efficient aircraft. Normally, full power is only needed for take-off and climb, whilst during cruise, only a fraction of the available power is needed. With this concept, the RED A03 engine in combination with Airlander buoyant and aerodynamic lift makes for superb efficiency levels".



James Bell, Programmes Director, said: "Our relationship with RED Aircraft is built on the common purpose of delivering efficiency in flight. RED Aircraft work to the high standards we require of our trusted suppliers, allowing us to bring our low emissions aircraft to market from 2025."

RED A03 and Hybrid Applications

RED Aircraft RED A03 has been the selected powerplant behind several aviation innovations. The engine variations are used in a wide variety of situations including UAVs, Provisional Rotary Wing, Hybrid and APUs

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