



magniX to launch new high power density electric motor for Aviation

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magniX is progressing to production of the magni5, its innovative high power density electric motor, and exploring the potential for a joint venture with an aviation manufacturer. magni5 has demonstrated peak powers of 300kW and power densities exceeding 5kW/kg – unrivalled performance making it the choice of propulsion for electric aircraft manufacturers.

John Kells, Director of Product Engineering, said: "We are extremely excited about the magni5 and the decision to progress the magni5 to production is a significant milestone in our program. We successfully designed, built and tested the motor, which has a continuous operating power of 265kW and a power density exceeding 5kW/kg – proving the viability of the product."

magniX Managing Director Jason Chaffey said, "There is significant global demand, with electric propulsion of aircraft widely regarded as the future of the industry given its ability to lower operating costs and make shorter routes economically viable. We believe that electric air propulsion is a disruptive technology and is an opportunity to commercialise our IP in high power density motors. With the success of the magni5, we are ready to serve those markets where low mass and weight constraints are necessary for hybrid and all electric vehicle applications."

Dr Chaffey said: "We see this as an emerging market in which there is a place for highly capable, adaptable and forward-looking companies like magniX, which are not afraid to solve the hard problems in the quest to save weight and advance motor technology. There's no doubt we can compete with global aircraft manufacturers because lightweight and power dense motors are needed to make this a reality and magniX has unique capabilities and proven intellectual property in this area."

New and established companies are pursuing aggressive commercialisation programs to create new platforms of electric aircraft for intercity and short route journeys. With climate regulations being negotiated at the International Civil Aviation Organisation, aircraft makers and operators globally are looking for solutions to improve the environmental performance of their fleet.

Global manufacturer Airbus is developing hybrid and all-electric aircraft with its aim to steadily increase the level of electrification, starting with the secondary power supply for areas such as the flight controls and air conditioning. In the US, a start-up called Zunum Aero which is backed by Boeing and JetBlue has a goal to build an electric hybrid aircraft in the early 2020s and a prototype within the next two years.



Dr Chaffey said: "Given the rapid progress magniX has made, aircraft manufacturers are talking to us, seeking to understand our product portfolio. Our focus is now to find the right long-term partner to bring magni5 into production."

In February 2017, magniX received a \$2.5 million grant from the Australian Federal Government to further develop the magni5 electric aircraft engine in collaboration with the University of Queensland and Brisbane-based Ferra Engineering.

About magniX

A subsidiary of Heron Energy, magniX is a privately-owned company based in Queensland which develops and commercialises advanced, power dense and energy-efficient motors and generators. It is leading energy innovation by redefining power density and efficiency. Through its magniflux™ technology, applied to superconducting and permanent magnet motors and generators, magniX is capable of scaling its technology to meet electrical generation and torque requirements for sustainable commercial transport and industry. For more information please visit: www.magniflux.com or contact us at sales@magniflux.com

