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new product

NEW SUPERCAR TO BOW THIS WEEK AT DUBAI AUTO SHOW

Kepler Motors, a Costa Mesa, Calif.-based start-up company, will take the wraps off its new Motion hybrid-electric supercar this week at the Dubai auto show. The company plans to build 50 of the vehicles, with deliveries due to start in 2011.

The all-wheel-drive car teams a modified version of Ford Motor Co.'s 3.5-liter, twin-turbo EcoBoost V-6, which powers the rear wheels, with a 250-hp electric motor that drives the front wheels. In the Motion, the gasoline-direct-injection EcoBoost has been upgraded to produce 550 hp—195 hp more than the base Ford system.

Generating a combined 800 hp, the hybrid system propels the Kepler supercar from zero to 60 mph in under 2.5 seconds. Top speed is estimated at more



Kepler says the Motion can go from zero to 60 mph in less than 2.5 seconds.

than 200 mph. The new two-seater makes extensive use of carbon fiber composite materials for its monocoque chassis and body. Built on a 105-inch wheelbase, the car stretches to 175 inches from bumper to bumper and is 79 inches wide. Its coefficient of drag is 0.30.

Other features include an active double-wishbone suspension, seven-speed sequential transaxle, launch control and a programmable track assistant system. The brakes use StopTech's new high-performance C3 (continuous carbon ceramic) AeroRotors at all four corners. Kepler says the C3 design, which uses silicon carbide ceramic material reinforced with long, continuous carbon fibers, provides greater mechanical durability and unique heat transfer capabilities vs. competitive carbon-ceramic rotors.

Other supplier partners include Aria Group, DHS Engineering and Mackevision. Aria contributed a variety of product development, engineering, styling, prototyping, machining and modeling services. DHS specializes in battery propulsion systems. Mackevision is helping with data conversion, modeling and quality control.

Founded by multiple world speed record holder Russ Wicks, Kepler contracted several other industry experts to work on the project. Wicks claims to be the only person to have held speed records in excess of 200 mph for IndyCar, NASCAR and NHRA race cars and a hydroplane boat.

Other team members include program manager Neil Hannemann, who previously was the engineering director of McLaren Automotive and also served as the chief engineer for Ford's GT supercar and the Ford-based Saleen S7. Engineering Director Derk Hartland had been the engineering design manager for the Saleen S7.

Todd Putnam, senior calibration engineer, also has experience at Ford and Saleen. Other contributors have worked at other niche developers, the U.S. Air Force's Aeronautics Lab and at government regulatory agencies.