The Audi e-tron concept electric car

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(PhysOrg.com) -- Audi has unveiled its new electric car concept, the Audi e-tron at the 2009 Frankfurt Motor Show in Germany.

The all electric car is basically a modified Audi R8 sports car, but slightly smaller in all dimensions. The car delivers a massive 4500 Nm (3,319 lb-ft) of torque and 233 kW (313 horsepower), and the car can go from 0 to 100 kph (0-60 mph) in 4.8 seconds. The power comes from four electric motors: one for each wheel.

According to Audi the car can travel around 250 km (154 miles) on a full battery charge. The lithium-ion battery provides an energy content of 42.4 kilowatt hours. The top speed is limited to 200 kph (124 mph) to avoid flattening the battery too quickly.

The car is light, being constructed of aluminum and carbon fiber, and fiber-reinforced plastics on the doors, body panels and roof. The styling is modified to accommodate the cooling needs of its Sanyo lithium-ion battery, and there are moveable flaps that open to help cool the battery when the car is traveling at slow speeds.

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Other ideas incorporated in the two-seater concept car are cameras instead of rear-view mirrors, and an adjustable array of LEDs in place of headlamps. Since the car is electric, gears are replaced by a simple forward, reverse and neutral selection. Many of the controls are touch panels rather than buttons or switches.

The Audi e-tron is still at the concept stage, but a few prototypes are expected to be released in 2010, with a small run to be manufactured in 2012 and made available in the U.S., essentially for research purposes. More widespread manufacture of the car is not expected for some years.

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