
Audi prologue Avant

The plug-in hybrid drive of the Audi prologue Avant is almost identical to the powertrain in the Audi Q7 e-tron quattro* which will be launched in summer 2015. The 3.0 TDI engine installed in the Audi prologue Avant outputs a maximum of 260 kW (353 hp), a powerful electric motor integrated in the eight-speed tiptronic contributes up to 100 kW. System output is 335 kW (455 hp), while system torque is 750 Nm (553.2 *lb-ft*). The eight speed tiptronic directs engine power to the quattro permanent all-wheel drive ensuring superior drive characteristics in any situation.

The show car accelerates from 0 to 100 km/h (62.1 *mph*) in 5.1 seconds. Its top speed is limited to 250 km/h (155.3 *mph*). The Audi prologue Avant consumes an average of only 1.6 liters per 100 kilometers (147.0 *US mpg*) according to the NEDC standard for plug-in hybrid vehicles – corresponding to 43 grams of carbon emissions per kilometer. The lithium-ion battery pack in the rear storing 14.1 kWh of energy gives the car a range of 54 kilometers (33.6 *mi*) in pure electric drive mode.

With its AWC (Audi wireless charging) technology which Audi is developing for series production, the battery can also be charged inductively. AWC technology provides energy from a floor plate which is connected to the power grid and which can be embedded on or into the asphalt. This plate integrates a primary coil and an inverter (AC/AC converter). When active, this coil induces a magnetic field of alternating current. On the basis of state-of-the-art technology, Audi uses 3.6 kW of power as provided by a wall socket with a maximum of 16 amps of charging current.

The chassis of the Audi prologue Avant is also packed with high-end series production technology. The adaptive air suspension sport – an air suspension system with controlled damping – offers a wide spread between smooth power transmission and tight handling. Front and rear axles are lightweight five arm wishbone constructions. The 20-inch brake disks are made from carbon fiber ceramics.

The dynamic all-wheel-drive steering system resolves the classic conflict between dynamic handling and stability. The system combines a dynamic transmission steering system on the front axle with an additional steering system for the rear wheels where an electric motor actuates two tie rods.

When the driver steers at low to moderate speeds, the rear wheels turn up to five degrees in the opposite direction of the front wheels. This gives the responsiveness of the car a further boost and reduces its turning circle. At higher speeds, the Audi prologue Avant



handles swerving very calmly and with superior reliability: in such a manoeuvre, the rear wheels turn in the same direction as the front wheels.

*Combined fuel consumption in l/100 km: 8.3 - 5.7 (28.3 - 41.3 US mpg)**;
Combined CO₂-emissions in g/km: 193 - 149 (310.6 - 239.8 g/mi)**

**Figures depend on the tires/wheels used.

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