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The new Audi A3

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**The equipment, data, and prices specified refer to the model range offered in Germany.
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Summary

The new Audi A3 – Innovation with style

In 1996, Audi launched the premium compact segment with the A3 – now the third generation of the successful model is ready at the starting line. The new A3, which will debut at the 2012 Geneva Motor Show, is a high-tech car full of innovations in all areas. Versions with hybrid and alternative drive systems such as natural gas and Audi e-gas are currently in development. A version with an exceptionally efficient 1.6 TDI engine will launch on the market in 2012; it consumes just 3.8 liters of diesel/100 km (61.90 US mpg), which is equivalent to 99 g/CO₂ (159.33 g/mile).

Audi ultra lightweight technology has helped to trim weight in the body of the appealing three-door car – compared to the previous model, the new A3 is now 80 kg (176.37 lb) lighter. The chassis is tuned for a sporty and agile driving style. The engines are powerful yet highly efficient, the interior offers an ambience of dynamic style. In driver assistance systems and infotainment, the new A3 offers a portfolio of technologies that redefines standards in the segment.

The car's styling visualizes the sporty character of the new A3; it gives the 4.24 meter (13.91 feet) long three-door model a powerful stance on the road. Sharp edges provide the outlines for dynamically curved sheet-metal surfaces. The overall vehicle length was kept identical to the previous model, while the wheelbase grew to 2.60 meters (8.53 feet), and the angle of the C-pillars was made low like that on a coupe. The single-frame radiator grille that is typical of Audi dominates the look of the front end. As an option, Audi can supply headlights in xenon plus technology together with LED daytime running lights; in this case, the taillights are also equipped with LEDs. Later on, full LED headlights will extend the range of features – and will be a first in the compact car segment.

Audi's consistent application of its ultra lightweight construction principle has produced a new A3 1.4 TFSI that weighs just 1,175 kg (2,590.43 lb) – making it significantly lighter than cars of the competition. The front fender and engine hood are made of aluminum; the car body also integrates a high share of ultra high-strength and hot-formed steels.

The completely redesigned interior of the Audi A3 appeals with the horizontal lines of an instrument panel that appears to float, trendsetting quality of materials and workmanship as well as clear ergonomics. The four round air vents, elegant control panel of the standard air conditioning system and the instrument cluster are all highlights here.

The color display of the driver information system (standard on the Ambition and Ambiente equipment lines) presents graphics in highly detailed 3D images.

The electrically retractable MMI monitor – with a seven-inch diagonal in the top version – is only eleven millimeters thick (0.43 inches). The new electromechanical parking brake creates space on the console over the center tunnel for the terminal of the optional MMI operating system. In its full version – MMI navigation plus with MMI touch – the upper side of its rotary pushbutton is designed as a touchpad – another ergonomic innovation. The driver can input letters and numbers by finger motion as in the Audi full-size class.

Audi is offering the Attraction, Ambition and Ambiente equipment lines as selections on the new A3; they let the customer choose the specific vehicle character they are looking for. Designers have developed attractive colors and materials for each of the versions. Customers can choose from among many sporty and convenient options that extend up to adaptive lighting, magnetic ride suspension and a panoramic glass sunroof.

Another technical area in which the new Audi A3 is extending its leadership role is in its new high-performance driver assistance systems. They range from radar-assisted adaptive cruise control to Audi side assist, Audi active lane assist, traffic sign detection, park assist and the Audi pre sense basic safety system. None of our competitors offers a similar portfolio of such systems.

In the infotainment area too, the innovative modular architecture hosts a whole array of components. It includes the sound system from Bang & Olufsen and MMI navigation plus. They are ideally complemented by the Bluetooth online car phone with WLAN hotspot. It gives passengers access to the Internet while traveling; for the driver, there are customized online services that make up the Audi connect package. The new Audi A3 will launch with three four-cylinder engines, all of which are essentially new developments. The two TFSI engines and the TDI work with 1.4, 1.8 and 2.0 liters of displacement. Their power levels are 90 kW (122 hp), 132 kW (180 hp) and 110 kW (150 hp). Compared to the previous model, fuel economy of the new A3 was improved by about 12 percent on average – with some engines the savings are even greater.

The 1.8 TFSI operates together with a standard seven-speed S tronic; the 1.4 TFSI and 2.0 TDI are paired with a six-speed manual gearbox. In each case, engine power is always transferred to the front wheels; quattro permanent all-wheel drive – and other engines, including a 1.4 TFSI engine with innovative cylinder on demand technology from Audi – will follow over the course of the next few months.

The chassis of the new A3 combines sporty driving fun with good comfort and impressive stability. The wheel suspensions form the foundation here, and the finely tuned power steering system has a highly efficient electromechanical drive. The ESC stabilization control integrates the electronic limited slip differential – which makes handling even more fluid and safe at performance limits when driving through curves.

The optional Audi drive select system (standard on the Ambition line) lets the driver vary the operating modes of key components – such as steering, the accelerator pedal and transmission characteristics (with S tronic) – for a customizable driving experience. It also incorporates the optional adaptive shock absorbers; they utilize magnetic ride technology from Audi. Wheels range from 16 to 18 inches in diameter.

The new Audi A3 will go on sale in the spring, and first deliveries to customers will be this summer. The base price of the A3 with the entry-level engine, which will follow around the end of the year, will be 21,600 euros in Germany.

At a glance

The new Audi A3

Design and body

- Sporty-progressive styling with coupe-like lines and long wheelbase, length 4.24 meters (*13.91 feet*)
- Intelligent mixed multi-material construction utilizing steel and aluminum
- Weight reduced by 80 kg (*176.37 lb*), curb weight of Audi A3 1.4 TFSI is just 1,175 kg (*2,590.43 lb*)
- Optional LED headlights and LED taillights

Interior

- Spacious interior, cargo capacity is 365 liters (*12.89 cubic feet*)
- Elegant design and exemplary ergonomics, standard and optional graphics in the FIS display and decorative inlays with various materials

Drivetrain

- At launch, one TDI and two TFSI engines with 90 kW (122 hp) to 132 kW (180 hp), all engines have state-of-the-art efficiency technologies
- Power transmission by manual gearbox or S tronic, front-wheel drive at launch, quattro permanent all-wheel drive later for more powerful engines
- 1.6 TDI only consumes 3.8 l/100 km (*61.90 US mpg*), equivalent to 99 g CO₂/km (*159.33 g/mile*)
- Versions with alternative drive systems such as hybrid, natural gas and Audi e-gas are currently in development

Chassis

- Alloy wheels, up to 18 inches in size
- ESC stabilization control with electronic limited slip differential is standard
- Audi drive select vehicle dynamics system and adaptive shock absorbers are optional

Features

- Extensive standard features as well as comfortable and sporty extras
- Advanced MMI system with MMI touch, ultra-slim, electrically retractable on-board monitor
- Optional highly advanced driver assistance systems, including Audi adaptive cruise control, further developed park assist and Audi pre sense basic
- Wide range of infotainment components, sound system from Bang & Olufsen, Bluetooth online car phone with services from Audi connect

Full version

A statement about competence – Audi A3

The new A3, which celebrates its premiere at the 2012 Geneva Motor Show, presents the combined technological competence of Audi in compact format. In its lightweight body, the architectures of its interior and user interfaces – the three-door car is once again setting standards in its class. Its engines impress with their efficiency and power, and the range of driver assistance systems and infotainment solutions is unparalleled in the premium compact class.

Exterior design

The new Audi A3 was designed with succinct lines, and its dimensions are compact. Its length of 4,237 mm (*13.90 feet*) and height of 1,421 mm (*4.66 feet*) are practically the same as on the previous model. And yet its proportions are sportier: The car's wheelbase grew by 23 mm (*0.91 inches*) to 2,601 mm (*8.53 feet*). Its front overhang is now shorter, and its width increased by 12 mm (*0.47 inches*) to 1,777 mm (*5.83 feet*).

The A3's progressive formal language visualizes all of the passion with which Audi engineers produces automobiles. The defining element at the front is the very sculptural single-frame radiator grille with its six corners; the engine hood continues its lines. Large air intakes at the front reflect the power of the engines.

The headlights are flat and integrate a wave-shaped lower edge. As an option, Audi can deliver xenon plus units; the LED bands that form the daytime running lights make the A3 unmistakable – especially at night.

On the sides of the body, the sharply delineated tornado line – another classic element of Audi design – gives structure to the area below the windows. Above the side sills, this dynamic line rises sharply upward.

Dynamically flared metal surfaces and large wheel arches lend a powerful appearance to the new A3. The low angles of the slender C-pillars and the roof that sweeps back into a modest spoiler convey the sporty look of a coupe.

Styling at the rear with the spoiler edge above the diffuser emphasizes the width of the new premium compact. The split taillights – in LED technology when equipped with xenon plus headlights – show a variation on the inner architecture of the front headlights. The trunk lid has a sculpted, three-dimensional look. The new A3 sports either one or two tailpipes on the left side in its diffuser insert, depending on the engine type.

13 paint colors are available, and an optional high-gloss package offers visual highlights. The S line exterior package with its distinctive accents will appeal to sport-oriented customers in particular.

The Audi ultra lightweight construction principle

Ultra lightweight construction has long been a success formula and a hallmark of the Audi brand. By no means is it limited to a specific material; instead, the motto is: “The right material in the right place for optimal function.” True to this maxim, engineers developed a multi-material body for the new A3.

Components made of form-hardened and hot-formed steels form a strong structure in the underbody area, A- and B-pillars and the roof arch. In many other body areas, high-strength and ultra-high-strength steel grades are used. The engine hood and fenders are made of aluminum, which saves over nine kilograms (*19.84 lb*) in weight.

The lightweight body and downsizing engines produce large secondary effects in the overall vehicle; many components of the chassis, the exhaust system and interior have reduced weights. The A3 1.4 TFSI weighs just 1,175 kg (*2,590.43 lb*) – which is 80 kg (*176.37 lb*) less than the previous model and sets an impressive standard in the premium compact class.

The body of the Audi A3 exhibits other strengths. It has a high degree of impact safety; it is rigid and acoustically comfortable; a sound-insulating windshield is standard equipment, and numerous other measures were taken to reduce interior noise in the new A3, even at high speeds.

Aerodynamic refinements, including a covered underbody and engine compartment, result in a low Cd value of 0.31.

Interior and equipment

The sporty-progressive lines of the exterior are also reflected in the interior of the new A3. As in large Audi models, the cockpit wraps around the driver in a curve. The instrument panel is slender and level; it appears to hover above the visually lightweight centre console that is angled towards the driver.

The high-end impression conveyed by the interior of the new A3 was created by the capable hands of Audi designers who selected its colors and materials, and it is a reflection of the Audi's stringent quality standards. The interior layout is different for the different equipment lines – Attraction is the modern, Ambition the sporty and Ambiente the luxurious variant.

Audi delivers the interior in the quiet colors black and titanium gray; as an alternative, fresh accents are created by pashmina beige, chestnut brown and capri orange. There are optional seat covers in different qualities of leather and a leather/Alcantara variant. The S line sport package offers many exclusive details and a black look throughout the interior. The Audi design selection capri orange opens up a new, highly contemporary color world.

The rear seating area of the new Audi A3 offers space for three persons, and easy entry is a standard convenience feature. The newly developed front seats offer excellent support and contours; their low mounting positions emphasize the sporty character of the three-door car. The driver takes a seat behind a new steering wheel design that has three or four spokes, depending on the equipment line, and shift paddles; multifunction keys are available as an option.

Fine details highlight the interior. The four large, round air vents in jet design are classic elements, and they serve a secondary innovative function: Simply by pulling the nozzle along its axis, the air stream can be adjusted from draft-free wide dispersion to a directed stream of ventilation air. The air conditioning control panel has a fascia in Piano finish black.

The new type of molded decorative panels on the contoured front of the instrument panel and in the doors can be delivered in aluminum as an option.

Intuitively simple user interfaces – this is one of Audi's competence domains. All of the buttons, switches and controls are positioned precisely where one expects them. The display of the driver information system (in color on the Ambition and Ambiente lines) positioned between the two large round instruments shows all key information, some in richly detailed 3D graphics – which generates a fascinating effect.

The trunk of the new Audi A3 offers a basic capacity of 365 liters (*12.89 cubic feet*); cargo capacity grows to 1,100 liters (*38.85 cubic feet*) when the split rear seatbacks are folded. The cargo floor can be placed on two levels – either for maximum volume or alternatively as a level cargo floor. As an option, Audi can supply a load-through hatch with ski sack, a reversible mat and a storage package for the interior and the trunk.

In all equipment lines, the new Audi A3 offers a standard air conditioning system with manual control, height adjustable front seats, on-board computer with efficiency program and a full package of safety restraint systems; the seven airbags include a knee airbag for the driver. In the A3 Ambition, standard features include front fog lights and highly adjustable sport seats.

Audi also offers many attractive extras. They include the LED interior lighting package (standard in the Ambiente), a panoramic glass sunroof, sport seats, heated seats, convenience key for keyless vehicle access, deluxe automatic air conditioning with economy mode, auxiliary heating and adaptive light for the xenon plus headlights, which can be supplemented with variable headlight range control.

The new Audi A3 will arrive at dealers in Germany starting in summer 2012. The entry-level version, which will follow around the end of this year, is listed at a price of 21,600 euros.

Drivetrain

At its launch, Audi is offering one TDI and two TFSI engines for the new A3; these three four-cylinder engines were developed from the ground up. They bundle many efficiency technologies – direct injection, turbocharging, innovative thermal management and the start-stop system. The engine downsizing concept – reducing displacement by supercharging – stands for high power with low fuel consumption. Compared to the previous model, fuel consumption has been reduced by an average value of about 12 percent.

The 1.4 TFSI, with its 1,395 cc engine displacement, produces 90 kW (122 hp) of power and 200 Nm (*147.51 lb-ft*) of torque; the latter is already available from 1,500 rpm. This engine accelerates the A3 from zero to 100 km/h (*62.14 mph*) in 9.3 seconds and up to a top speed of 203 km/h (*126.14 mph*). Its combined fuel consumption is a mere 5.2 liters per 100 km (*45.23 US mpg*), equivalent to CO₂ emissions of 120 grams per km (*193.12 g/mile*).

The 1.8 TFSI – with an engine displacement of 1,798 cc – produces 132 kW (180 hp) and outputs 250 Nm (*184.39 lb-ft*) of torque between 1,250 and 5,000 rpm. It combines direct injection with supplemental injection into the induction pipe, varies the valve stroke based on load using the Audi valvelift system and utilizes a very elaborate thermal management system to quickly heat the engine after a cold start. Its key performance data: zero to 100 km/h (*62.14 mph*) in 7.2 seconds, top speed 232 km/h (*144.16 mph*), combined fuel consumption of 5.6 liters per 100 km (*42.00 US mpg*), equivalent to 130 g CO₂ per km (*209.21 g/mile*).

The 2.0 TDI with 1,968 cc engine displacement also offers a high-performance thermal management system. Its two balancer shafts were relocated from the oil pan to the crankcase, which clearly improved smooth engine running. Producing 110 kW (150 hp) and 320 Nm (*236.02 lb-ft*), this diesel delivers tremendous power.

The A3 2.0 TDI sprints from a standstill to 100 km/h (*62.14 mph*) in 8.6 seconds and reaches a top speed of 216 km/h (*134.22 mph*). In combined mode, it only requires 4.1 liters per 100 km (*57.37 US mpg*) – equivalent to CO₂ emissions of 106 g per km (*170.59 g/mile*).

Audi will be extending the engine line-up of the A3 model series step by step. A dynamic S model and other highly efficient and low-emissions versions are planned, including a CNG version for operation with natural gas or Audi e-gas.

A version with the especially efficient 1.6 TDI engine will debut in 2012; it consumes just 3.8 liters diesel/100 km (*61.90 US mpg*), equivalent to 99 g/CO₂ (*159.33 g/mile*). There are no limitations whatsoever on the range of features for this highly efficient version; this A3 is a fully-fledged Audi as well.

At the A3 market launch, Audi will pair the 1.4 TFSI and 2.0 TDI with a six-speed manual transmission. In the 1.8 TFSI, the seven-speed S tronic is standard; the highly efficient dual-clutch transmission integrates a freewheeling function in conjunction with Audi drive select. All of these transmissions transfer power to the front wheels; the quattro permanent all-wheel drive will follow over the course of the year. Its centerpiece is a hydraulic multi-plate clutch. If necessary, it can variably distribute power between the front and rear wheels – lightning-fast and according to the momentary driving situation.

Chassis

The chassis of the new Audi A3 is well balanced for a sporty mode of driving. The front suspension has a McPherson layout with wishbones, while the multi-link rear suspension absorbs longitudinal and transverse forces independently. The electromechanical power steering system operates with sensitivity, precision and high efficiency; in straight-line driving it does not require any energy input – making an important contribution to the overall efficiency of the new Audi A3. When the sport suspension is ordered, the body is lowered by 15 mm (*0.59 inches*), and with the S line suspension it is lowered by 25 mm (*0.98 inches*).

The new Audi A3 rides as standard on 16-inch or 17-inch wheels (alloy on the Ambiente and Ambition). Upon request, Audi can provide wheels up to 18 inches in diameter. The respective tire sizes are 205/55, 225/45 and 225/40; all tires exhibit low rolling resistance without any compromises in dynamic performance.

Behind the large wheels are powerful brakes, and the front discs are internally ventilated. The ESC stabilization control adds the electronic limited slip differential in a weight-neutral way. It improves handling and driving safety at the limits of performance in curves by making minimal brake interventions. The new electromechanical parking brake, adopted from the large car models, is operated by a button on the center console and includes an auto release function and an emergency braking function.

Another attractive option in the new A3 is the Audi drive select vehicle dynamics system (standard in the Ambition); it interfaces to the accelerator pedal, power steering and S tronic. At the push of a button, the driver decides whether these systems should operate in comfort, auto, dynamic, individual or efficiency mode. In the last-named mode, the optional deluxe automatic air conditioning and adaptive cruise control are operated to maximize fuel economy.

Another component integrated in the Audi drive select control system is the optional electromagnetic control of the shock absorbers: Audi magnetic ride. It lets drivers choose between a comfortable mode and a sporty one.

Within these control limits, the system modifies damping forces in just milliseconds, as a function of road conditions and driver preferences. The body is lowered by 15 mm (*0.59 inches*) here.

Infotainment

The modular infotainment platform makes its debut in the new A3 – it represents a big step in the direction of future mobile communication electronics. Its layout enables, for the first time, hardware updates with little effort, so that it always reflects the latest developments.

The central computer of the new MMI integrates what is known as the MMX board (MMX: Multi-Media eXtension). This plug-in module includes the fast T 20 graphic processor of the Tegra 2 series from market leader Nvidia. It is used for all voice control, online, media, navigation and telephone functions.

When the system is started, the monitor of the MMI operating system is electrically deployed from the instrument panel. Depending on the version, its screen has either a 5.8-inch or 7-inch diagonal. It has an elegant and high-end look with a high-gloss black housing made of ultra-lightweight magnesium, which is only eleven millimeters (*0.43 inches*) thick.

Audi is also presenting important new features in the user terminal on the console of the center tunnel. The rocker switches with fixed assignments – hard keys – have been rearranged, and in the top version MMI navigation plus, the large rotary pushbutton is a touchwheel with MMI touch, a technology from Audi luxury cars. Its touch-sensitive surface lets drivers input letters and numbers by finger on top of the touchwheel.

The Audi radio is standard aboard the new Audi A3. The next level up, the MMI radio, adds a user terminal and electrically deployable 5.8-inch monitor. It may be supplemented by the connectivity package which contains the Audi music interface for integrating a mobile player, a Bluetooth interface and navigation preparation. If the A3 customer wishes to purchase an SD card with navigation data at a later time, or if the navigation package is selected with the car, the MMI radio becomes a navigation system.

MMI navigation plus with MMI touch is available as the top version – it is a media center with 60 GB memory capacity, DVD drive and whole-word voice control. The high-resolution 7-inch monitor shows map images in detailed 3D graphics. It interfaces the MMI navigation plus to cell phones and mobile player devices via the integrated Bluetooth interface.

Attractive components round out the infotainment line-up. They include a module for digital radio reception and the Audi phone box that conveniently couples a cell phone to the vehicle antenna. An alternative to the Audi sound system is the optional Bang & Olufsen Sound System; its 705W amplifier drives 12 channels and 14 loudspeakers with 5.1 Sound. The edges of the woofers in the doors are illuminated by LED light conductors.

Audi connect

The Audi connect system bundles all infotainment technologies that let the vehicle owner network with the Internet, infrastructure and other vehicles. The central component is the Bluetooth online car phone as a supplement to MMI navigation plus. It produces the connection to the Internet via a UMTS module. Passengers can conveniently surf and email with up to eight mobile devices via an integrated WLAN hotspot.

For the driver, the Bluetooth online car phone brings customized Internet services into the new Audi A3. They range from navigation with images from Google Earth to the new web radio function Audi music stream, Google POI search by voice control and Google Street View.

An especially appealing service is Audi online traffic information. It makes use of information from the movement profiles of hundreds of thousands of smartphones and navigation units that are traveling on the road. Anonymized and centrally prepared, it offers a very up-to-date picture of the traffic situation, which incorporates country roads and cities as well. The driver sees his or her individual route on the MMI monitor shown in green, yellow, orange or red – depending on traffic load. This service can already be used in a number of European countries, and others will follow.

Driver assistance systems

The Audi A3 is also setting new standards in the premium compact class when it comes to driver assistance systems. The most important of them is Audi adaptive cruise control, which maintains a desired distance to the car ahead by accelerating and braking – up to a vehicle speed of 150 km/h (*93.21 mph*). If the A3 driver orders the assistance package, which combines several systems, the control range is extended up to 200 km/h (*124.27 mph*).

In case of an impending collision, the ACC system warns the driver according to a progressively staged strategy. If necessary, it can initiate partial braking to reduce the car's speed at impact.

If a collision does occur, an innovative system is activated in the A3. It prevents uncontrolled secondary car travel after the initial collision and simultaneously activates the interior lighting. If the Bluetooth car phone is on board, a call is also made to emergency services. Activated at speeds under 30 km/h (*18.64 mph*), the system applies full braking in an emergency situation; in many cases this can prevent secondary collisions with pedestrians.

Other systems complete the line-up. Audi side assist, which monitors traffic at the back of the car with radar, simplifies lane changes for the driver, while Audi active lane assist helps the driver to stay in the lane by making a slight steering correction if necessary. The system's video camera is also used by the traffic sign detection system; it shows speed limits and other traffic signs on a monitor in conjunction with MMI navigation plus. The rest recommendation system detects when the driver is fatigued, and warns the driver accordingly.

Audi offers a number of systems for convenient parking, and park assist is at the top. It takes over steering duties for the driver in perpendicular and parallel parking. If necessary, it can make multiple forward and reverse maneuvers. Its 12 ultrasonic sensors detect obstacles around the car. New in the A3: park assist can be supplemented by a reversing camera.

Another high-end option is the Audi pre sense basic safety system. When it detects an unstable driving state via the sensors of the ESP stabilization system, it tensions the front seat belts with electric motors and closes the sunroof and side windows.

A3 success story

The A3 has a 16-year history of success at Audi. The first generation of the model series, which debuted in 1996 as a three-door model, created an entirely new market segment – the premium compact class. The A3 sets new standards with its sporty character, high-quality workmanship and optional quattro all-wheel drive. In 1999, the five-door model and the sporty S3 rounded out the line-up. Audi sold about 880,000 units of this first model series.

The second generation, which followed in 2003, was even more successful and increased total sales to about 1.8 million units. In the competition that now developed, the A3 impressively dominated the premium compact class. The brand with the four rings broadly diversified its model line-up with the versatile Sportback (2004), the dynamic S3 (2006), the emotional Cabriolet (2008) and the high-performance sports model, the RS 3 (2011). Over its production life to date, the A3 model series has represented over 20 percent of total Audi sales, establishing itself as a steadfast pillar of the brand's success.