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The Audi RS 5 Coupé – power repackaged

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Annex: Technical data

The equipment and data specified in this document refer to the model range offered in Germany. Subject to change without notice; errors and omissions excepted.

Summary

Model athlete with a new shape – the Audi RS 5 Coupé

Audi's model athlete, the RS 5 Coupé, has gained some new design accents for an even sharper shape. The elegant two-door model impresses with commanding performance. Its 4.2-liter FSI engine, a high-revving, normally aspirated V8, generates 331 kW (450 hp), launching the RS 5 Coupé from zero to 100 km/h (62.14 mph) in 4.5 seconds. Audi will increase the electronically governed top speed to 280 km/h (173.98 mph) upon request.

The Audi RS 5 Coupé now has an even more athletic and muscular road stance. The upper corners of the single-frame grille are beveled, and sharper edges lend the hood an even more sculpted appearance. The most striking elements at the front of the car, however, are the new, wedge-shaped headlights. Utilizing xenon plus technology, they include narrow LED strips for the daytime running lights. The taillights and the rear bumper have also been redesigned.

Interior updates include the leather-wrapped RS 5 multifunction sport steering wheel with the ring flattened at the bottom, redesigned controls, the ignition key, the knob of the gear selector lever, the steering column stalks and the buttons for Audi drive select and the optional MMI navigation plus. The interior is a study in black. The standard inlays are carbon, with aluminum, Piano finish or stainless steel mesh available as options.

The Audi RS 5 Coupé is an elite athlete. Its 4.2 FSI engine, a high-revving, normally aspirated V8, produces 331 kW (450 hp) at 8,250 rpm, with the peak torque of 430 Nm (317.15 lb-ft) available between 4,000 and 6,000 rpm. The high-performance coupe accelerates from zero to 100 km/h (62.14 mph) in 4.5 seconds. Audi will increase the electronically governed top speed to 280 km/h (173.98 mph) upon request. The 4.2 FSI consumes an average of just 10.5 liters of fuel per 100 kilometers (22.40 US mpg) on average – far less than its key competitors.

With its high efficiency and its long top gear, the standard seven-speed S tronic dual-clutch transmission also contributes to the good fuel economy.

Like every Audi RS model, the RS 5 Coupé applies its power to the road with quattro permanent all-wheel drive, here in the latest evolutionary stage with the self-locking crown gear center differential and torque vectoring. Audi also offers the optional sport differential, which actively distributes the power between the rear wheels.

The suspension of the RS 5 Coupé lowers the vehicle body by 20 millimeters (0.79 in). The new electromechanical power steering is highly efficient and provides excellent road feedback. The new standard 19-inch forged aluminum wheels are shod with 265/35-series tires. The brake system features large, internally vented wave discs with a wave-shaped outside contour; the front calipers are painted black and have eight pistons each. Audi delivers carbon fiber-ceramic discs up front upon request.

Audi drive select comes standard. Besides the standard vehicle components, it can also modify the behavior of the optional sport differential, dynamic steering, adaptive cruise control and the sport suspension plus with dynamic ride control (DRC). The latter is a purely mechanical system without any lag. Its damping characteristic can be switched between three characteristics. Among the options available for the RS 5 Coupé are Audi's driver assistance systems and infotainment features.

At a glance

The new Audi RS 5 Coupé

Engine

- High-revving, normally aspirated V8 with FSI technology displacing 4,163 cc
- 331 kW (450 hp) at 8,250 rpm; peak torque 430 Nm (*317.15 lb ft*) from 4,000 to 6,000 rpm
- Zero to 100 km/h (*62.14 mph*) in 4.5 seconds; top speed increased to 280 km/h (*173.98 mph*) upon request
- EU cycle fuel consumption 10.5 liters per 100 km (*22.40 US mpg*)

Drivetrain

- Seven-speed S tronic dual-clutch transmission standard
- quattro with self-locking crown-gear center differential and torque vectoring
- optional sport differential for the variable distribution of power between the rear wheels

Chassis

- Audi drive select standard; dynamic steering optional
- High-performance brakes, with front carbon fiber-ceramic discs available as an option
- ESP stabilization program with Sport mode; can be deactivated
- Optional sport suspension plus with DRC dynamic ride control

Design

- Elegant coupe design with even sharper sporty accents
- New xenon plus headlights with LED daytime running lights, new LED taillights

Interior and controls

- Exclusive interior with decorative carbon inlays
- New leather steering wheel with flattened bottom ring, modified controls, new controller for the MMI navigation plus system
- Optional hard drive navigation system and Bang & Olufsen sound system
- Advanced driver assistance systems available

Full version

Power intensified – the Audi RS 5 Coupé

The Audi RS 5 Coupé is a model athlete, with tremendous power packed into a two-door body sporting an even sharper design. The 4.2-liter V8 produces 331 kW (450 hp); the seven-speed S tronic and the quattro drivetrain deliver the power to all four wheels. The RS 5 Coupé accelerates from zero to 100 km/h (62.14 mph) in 4.5 seconds, and its top speed can be increased to an electronically governed 280 km/h (173.98 mph) upon request.

Body and exterior design

The Audi RS 5 Coupé has a muscular road stance, with distinctive lines, powerfully taut surfaces, and expressive front end and a distinctive rear end. Its body is wide and low, the front end is long, the C-pillars flow harmoniously into the powerfully arched shoulder line.

The new, sharper design lends the two-door model an even flatter and wider appearance when viewed from the front. The top corners of the single-frame grill are beveled. Its honeycomb grid is finished in high-gloss anthracite gray and features an RS 5 badge. The frame sports a matt aluminum-look finish. The hood is contoured with sharper edges. The large air inlets with their deeply sculpted edges are divided by struts and also covered with honeycomb grilles. The bumper tapers downward into a splitter, reminiscent of a race car.

The most striking of the new design elements at the front of the vehicle are the wedge-shaped headlights with their wave-shaped bottom edge. Xenon plus headlights are standard. The LED daytime running lights, which consume a minimum of energy, encircle the headlights and turn signals as a narrow, visually homogenous clasp. Audi also offers the adaptive light system with dynamic cornering light and turning light.

The front and rear fenders of the Audi RS 5 are flared. The harsh edges above the wheel wells are a gentle reminder of one of the brand's icons, the Ur-quattro of 1980. The side sills sport muscular caps. The trim strips around the windows and the side mirror housings have a matt aluminum-look finish.

Audi offers the RS 5 Coupé in a choice of eight colors – one solid finish, five metallic or pearl-effect finishes and two crystal-effect finishes. They are Ibis White, Silver (new), Suzuka Gray, Misano Red, Sepang Blue, Daytona Gray, Phantom Black, Prism Silver and Panther Black. Two new styling packages are available. One includes bolt-on parts in black, the other features matt aluminum-look accents. Audi also offers a carbon design package for the engine compartment.

The high-performance coupe's tinted taillights are also new. The rear lights form a visually homogeneous curve, the turn signal is a line along the upper edge and the brake light is in between. The large elliptical tailpipes of the dual exhaust system open onto a redesigned bumper covered with a honeycomb grille. A diffuser is integrated into the bumper. The spoiler in the rear hatch extends electronically at 120 km/h (*74.56 mph*).

The underbody is lined with plastic panels. It integrates air vents and airfoils for the brakes, the seven-speed S tronic and center differential. At highway speeds, the complete aerodynamic package generates downforce to further enhance stability. The c_D value is 0.32; the front surface area measures 2.18 m² (*23.47 sq ft*). The Audi RS 5 Coupé is 4,649 millimeters (*183.03 in*) long, 1,860 millimeters (*73.23 in*) wide and 1,366 millimeters (*53.78 in*) tall. Its front fenders are made of aluminum for improved axial load distribution, and a strut brace lends the front section of the car additional stiffness.

Interior

The most striking new feature in the interior of the RS 5 Coupé is the leather three-spoke, multifunction steering wheel. Its thick ring is covered in perforated leather and flattened at the bottom. The new buttons and rollers are now even more intuitive. The console on the center tunnel has also been reorganized. The terminal for the optional MMI navigation plus saw the number of hard keys for menu functions reduced from eight to six, and the volume control now includes a skip function for moving to the next song.

The ignition key and the steering column stalks have also been updated. Buttons can now be used to activate the optional seat heating and ventilation systems directly, and the air conditioning's displays are illuminated in white. Audi drive select is now controlled via a single button, and a single tap of the selector lever is all it takes to switch to the S mode of the seven-speed S tronic.

The sport seats have large side bolsters, integrated headrests and embossed RS 5 logos. They are power adjustable and include a four-way lumbar support and an extendable thigh rest. They are covered with a combination of leather and Alcantara, with black or moon silver Fine Nappa leather available as an option. Audi also offers manually adjustable bucket seats and deluxe climate-controlled seats featuring a ventilation function and covered in perforated leather.

The instruments have black gauges and white lettering with distinctive scaling. The driver information system integrates a lap timer for circuit times and an oil temperature gauge. Both it and the MMI monitor display a special RS 5 welcome screen when the car is started.

The fascia at the instrument cluster and the center console are now in high-gloss black. Decorative inlays are available in carbon, Aluminum Race, Piano black finish, brushed matt aluminum or dark stainless steel mesh. Carbon fiber-reinforced polymer fascia is standard.

The color black dominates the interior, with a Moon Silver headlining available as an option. Typical of all RS vehicles, the door openers are two narrow bars. Aluminum inlays adorn the door sill trims. They, like the steering wheel, the tachometer and the gear selector lever, are decorated with RS logos.

The power window controls and the switches for the power seats are subtly framed with chrome. The pedals, the footrest, the air vents, the shift paddles on the steering wheel, the MMI buttons and other controls shine in an aluminum-look finish. The Audi exclusive program also include numerous options for further personalizing the RS 5.

Equipment and trim

Deliveries of the updated Audi RS 5 Coupé are scheduled to begin in the middle of the year at a base price of €78,200. Standard equipment includes the parking system plus, automatic air conditioning, the concert CD radio with eight speakers, folding rear seats, a load-through hatch with ski bag and a package of restraint systems comprising six airbags, the integral head restraint system and Isofix anchor points for child safety seats in the back.

The range of options includes such things as the convenience key, panoramic tilting sunroof, three-zone automatic air conditioning, tinted rear windows and a power rear window shade. All of the assistance systems from the A5 family are available in the RS 5 Coupé – the new driver information system with rest recommendation, Audi side assist, Audi active lane assist and the parking system plus with reversing camera.

A wide range of multimedia components is also available. The top-of-the-line is MMI navigation plus, a control and navigation center with a large hard drive, a DVD drive, a seven-inch color monitor with 3D graphics and whole-word destination input. HiFi fans can order the Bang & Olufsen sound system, which drives 14 speakers with an impressive 505 watts of total power.

Another expansion module for MMI navigation plus is the online Bluetooth car phone, which uses a UMTS module to connect the Audi RS 5 to the Internet. The keyword here is Audi connect. Passengers can surf the web freely with their mobile devices via the integrated WLAN hotspot. Audi offers the driver tailored Internet services ranging from Audi online traffic information to navigation using images from Google Earth.

Engine

The Audi RS 5 Coupé is equipped with a high-revving, normally aspirated V8 displacing 4,163 cc. The 4.2 FSI delivers 331 kW (450 hp) at 8,250 rpm, with the peak torque of 430 Nm (*317.15 lb-ft*) available between 4,000 and 6,000 rpm. Direct response, eager revving and a rich, melodious sound – the V8 with direct fuel injection and aluminum crankcase is a thoroughbred sport engine.

The long-stroke engine (bore x lift 84.5 x 92.8 mm [*3.33 x 3.65 in*]) can breathe freely thanks to intensive refinements to the intake and exhaust system with the two throttles valves. Valves in the two large tailpipes open at high load and engine speed or at the push of a button in Audi drive select for a richer sound. In Dynamic mode, double-clutching provides an audio backdrop to downshifts. Upon request, Audi will install a particularly distinctive sounding sport exhaust system with black tailpipe tips that also includes this switching function.

The 4.2 FSI's specific power output is 108.1 hp per liter of displacement; each hp only needs to move 3.8 kilograms (*8.38 lb*) of weight. The 4.2 FSI with its red cylinder head covers is hand-built at the Audi plant in Győr, Hungary. It catapults the two-door from a standing start to 100 km/h (*62.14 mph*) in 4.5 seconds; 200 km/h (*124.27 mph*) is reached after another 10.9 seconds. Top speed is a governed 250 km/h (*155.34 mph*); Audi will raise this to 280 km/h (*173.98 mph*) at the customer's request.

The powerful V8 consumes just 10.5 liters of fuel per 100 km (*22.40 US mpg*), much less than its direct competitors. The cylinder barrels and the chain drive have been optimized for minimal friction, and the oil pump is demand-controlled.

Drivetrain

With its high efficiency and its long top gear, the standard seven-speed S tronic also contributes to the good fuel economy. Drivers can operate the dual-clutch transmission like an automatic in D and S modes, or they can shift themselves using the gear selector lever or the paddles on the steering wheel for particularly sporting driving. The launch control program modulates the engagement of the clutch at the optimal engine speed for pulling away so that the engine's power is delivered to the road with minimal wheel slip.

The seven-speed S tronic consists of two sub-transmissions, whose clutches actuate different gears. The direct shifts are executed by switching clutches; they take just a few hundredths of a second and so smooth comfortable that the driver barely notices.

Like every Audi RS model, the RS 5 Coupé comes with quattro permanent all-wheel drive. The crown gear center differential at its heart is compact and lightweight. During normal driving, it distributes the power between the front and rear axles with a sporty 60:40 rear bias. It can instantly vary this distribution if necessary, sending up to 70 percent of the torque to the front and as much as 85 percent to the rear.

The crown-gear center differential works together with the torque vectoring system, which acts on all four wheels. If the load on the inside wheel is reduced too much while the car is being driven dynamically, that wheel is braked slightly before it can begin to slip. The RS 5 Coupé remains neutral for an extremely long time at the handling limits; the slight understeer when turning into corners and when accelerating is compensated almost completely.

The ESP stabilization program intervenes later and more gently – if it is even necessary at all.

Audi offers the sport differential as a complementary option that actively distributes the power between the rear wheels via two superposition stages. When turning into or accelerating in a curve, the majority of it flows to the outside wheel and pushes the RS 5 Coupé into the curve, nipping the tendency to oversteer or understeer in the bud. With the sport differential, the RS 5 Coupé drives as if on the proverbial rails.

Chassis

The chassis of the RS 5 Coupé is the basis for fast and precise turn-in, high lateral acceleration and supreme stability. Most of the components of the five-link front suspension and the self-tracking trapezoidal-link rear suspension are made of aluminum.

The new speed-dependent power steering is an electromechanical system with a sportily direct steering ratio for highly precise road feel. It can support the driver with slight steering corrections when braking on a surfaces with different amounts of grip. The steering system consumes no energy when driving straight ahead, which contributes to powerful coupe's efficiency.

The taut setup lowers the body by 20 millimeters (*0.79 in*) compared with the Audi A5. The bearings are stiffer and the stabilizer bars are thicker. Newly designed, 9 J x 19 forged aluminum wheels with 265/35-series tires are standard. 20-inch wheels with 275/30-series tires are available as an option. Audi offers two versions of them, one with a polished titanium-look finish.

The brake system of the RS Coupé features large, internally ventilated wave discs, with the front discs measuring 365 millimeters (*14.37 in*) in diameter. The steel friction rings with their wave-like outer contour are perforated and connected to the aluminum brake caps via pins. This direct structure reduces tensions, quickly dissipates the heat and prevents the transmission of temperature peaks.

The new shape of the friction rings shaves a total of roughly three kilograms (*6.61 lb*) from the unsprung masses.

The calipers are painted high-gloss black; the front calipers have eight pistons each and sport RS logos. The electronic stabilization program (ESP) includes a Sport mode and can be switched off entirely. Six-piston calipers and carbon-fiber ceramic discs measuring 380 millimeters (*14.96 in*) up front are optionally available. They are lightweight, practically fade-free, extremely robust, powerful and durable.

Upon request, Audi equips the RS 5 with a particularly dynamic damping technology – the sport suspension plus with dynamic ride control (DRC). The diagonally opposed pairs of shock absorbers are linked by hydraulic lines and a central valve. During fast cornering, the system boosts the stabilization of the deflected front outside wheel, for example. The sport suspension plus features a three-stage, variable damping characteristic.

The Audi drive select driving dynamics system comes standard with the RS 5 Coupé. This system allows the driver to select between three modes – comfort, auto and dynamic – for the characteristics of the steering, the seven-speed S tronic, the throttle valves and the exhaust sound valves. And if the car is equipped with an Audi navigation system, there is also a driver-configurable custom mode.

Optional modules for Audi drive select beside the sport differential and the damping characteristic in the sport suspension plus are adaptive cruise control and dynamic steering. The latter uses a superposition gear to vary the steering ratio by nearly 100 percent as a function of speed and countersteers slightly at the cornering limit.