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The Audi S3 Sportback

Short version	2
At a glance	5
Long version	6
The Audi S3 – a success story	18

Short version

The Audi S3 Sportback – now with S tronic gearbox

- **Efficient, fast dual-clutch transmission for the S3 Sportback**
- **Quicker acceleration paired with even higher fuel efficiency**
- **Particularly sporty combination in the compact class**
- **Top-of-the-range S tronic variant priced from \$71,010**

The flagship of the A3 range – the Audi S3 Sportback – is now available with an S tronic gearbox, complementing the existing manual version. Priced at \$71,010 RRP, this dynamic and sporty addition further enhances the class-leading A3 range.

The Audi S3 Sportback comes with the renowned 2.0 TFSI engine, category class winner for four successive years at the International Engine of the Year awards. With an output of 188 kW, this powerful turbo charged direct injection engine catapults the new S3 Sportback into the exclusive class of fast compact sports cars. Maximum torque of 330 Nm is constantly available from 2,500 to 5,000 rpm.

Compared with the A3, the 2.0-litre engine in the S3 Sportback has been further developed. The turbo, with its upsized turbine and compressor turbine wheel, builds a relative charge pressure of up to 1.2 bar. A re-engineered charge air cooler significantly lowers the temperature of the compressed air and thereby increases the air mass required for combustion.

Pistons with reinforced pins operate within this powerful TFSI engine. Reinforced, newly mounted connecting rods transmit the forces onto the crankshaft. The cylinder block has been stiffened, with its head being cast from a new, high-temperature alloy. The exhaust camshaft timing has been adapted to the increased output, whilst the high-pressure injectors have been provided with increased cross-sections. With all of its concentrated technology, the high-performance, turbocharged engine weighs just 152 kg, less than comparable engines from direct competitors.

Concentrated dynamics

The new S3 Sportback S tronic sprints to 100 km/h in just 5.6 seconds (manual version: 5.8 seconds) with a top speed electronically limited to 250 km/h. However, the high-tech four-cylinder consumes an average of just 8.3 litres (manual version: 8.5 litres) per 100 km on the combined cycle – further proof of Audi's successful efficiency strategy.

Two gearboxes are now available, with the S tronic sports gearbox complementing the existing six-speed manual transmission, launched in November 2008.

A genuine marvel of engineering, the revolutionary S tronic dual-clutch transmission has been a sensation ever since it debuted in the Audi TT 3.2 quattro in spring 2003. It combines the advantages of a compact six speed manual transmission with the qualities of a modern automatic.

The driver benefits from enormous agility and driving pleasure with acceleration that is both harmonious and dynamic, without any perceptible interruption in the power flow. This is coupled with good economy thanks to low fuel consumption, and convenient operation.

The ultra-compact S tronic with twin multi-plate clutch can simultaneously preselect two gears. With its ingenious electro-hydraulic operation, it shifts from one gear to the next in a split second.

The S tronic also makes the dynamic spearhead of the A3 family even speedier. It further reduces, by two-tenths of a second, the time required to accelerate from zero to 100 km/h to 5.6 seconds. At the same time, fuel consumption has improved to 8.3 litres/100km with CO₂ emissions of just 198 g/km.

The 6-speed manual gearbox boasts reduced shift travel. It transmits the high-performance engine's output to the quattro powertrain which is fitted as standard in all of Audi's S models. An electronically controlled, hydraulic multi-plate clutch, which is located in the rear for better weight balance, distributes the torque as required, ensuring uncompromising grip and

maximum driving safety. All of the powertrain's components have been reinforced.

The A3's already excellent chassis has been further refined in the S3 Sportback. Aluminium swivel bearings and wishbones reduce the unsprung masses to attain even greater dynamics. Stiffer chassis bearings and the electromechanical steering's sportier characteristic curve increase precision.

The sports suspension integrates a range of lightweight aluminium components, and lowers the body by 25 millimetres. A 17" brake system with sports brake pads ensures reliable deceleration and the black callipers at the front bear S3 emblems.

At a length of 4,302 mm, the new S3 Sportback is +72mm longer than its 3-door stable-mate and stands +3mm higher. Overall width remains the same at 1,765 mm.

Two new options: Audi magnetic ride and Audi Park Assist

The S3 Sportback can now be optioned with Audi magnetic ride. As seen in the R8 and TT, Audi magnetic ride is an electronic shock absorber control system and solves the conflicting aims of comfort and vehicle dynamics. A synthetic hydrocarbon oil, in which magnetic particles with a grain size of just three to ten micrometres (one thousandth of a millimetre) are enclosed, circulates in the shock absorber plungers. Applying voltage to a coil leads to the formation of a magnetic field in which the alignment of the particles changes. They are positioned transverse to the oil's direction of flow, thereby inhibiting its flow through the plunger ducts. This changes the damping characteristics within a matter of milliseconds. Audi magnetic ride is available as a \$2,400 option.

Audi Park Assist is a new system that uses special ultrasonic sensors on the driver and passenger sides to determine a suitable sized parallel parking space. If a space is sufficiently large enough to reverse into, corresponding information is displayed in the instrument cluster and once reverse gear is engaged the Park Assist system performs the necessary steering movements while the driver performs longitudinal movements by operating the brake, accelerator and clutch. The system is priced at \$950.

Even sharper: The S3's appearance

The new S3 Sportback can be recognised at first glance thanks to a range of sharp lines –including the roof spoiler and side sills.

The radiator grille is fitted with chrome-plated, vertical double bars, the front bumper with a powerful spoiler lip. Chrome rings border the fog lamps. A platinum grey diffuser and two large oval exhaust tailpipes sharpen up the rear as do the redesigned tail light clusters. S-specific exterior mirrors with indicators round out the design. Eleven paint finishes are available including the S-specific colours Solar Orange, Imola Yellow and Sprint Blue (with pearl effect).

Fitted as standard are new S design 18" alloy wheels and Xenon plus headlights with LED daytime running lights.

Inside, embossed Silk Nappa leather sport seats, S design multi-function leather sports steering wheel, BOSE speaker system and Bluetooth mobile phone preparation are amongst some of the many standard features. From the Audi exclusive quattro GmbH range, bucket seats and a new flat-bottom design multi-function leather sports steering wheel are available as optional extras. Aluminium-look pedals and door sill strips come as standard to enhance the sporty appeal of this top-of-the-range model.

Safety is not compromised as the new S3 Sportback comes standard with an Electronic Stabilisation program ESP incorporating ABS Traction Control, Anti-slip Regulation ASR and an Electronic Differential Lock EDL. SIDEGUARD head and curtain airbags for front and rear passengers, together with side and front airbags round out the passive safety package.

At a glance

The Audi S3 Sportback

- Compact dimensions: 4,302 mm (length), 1,765 mm (width), 1,402 mm (height), 2,578 mm (wheelbase)
- Dynamic body details such as roof spoiler and diffuser
- Sports car calibre performance: 0 – 100 km/h in 5.6 seconds (manual transmission: 5.8 seconds), top speed limited to 250 km/h
- Powerful turbo engine with direct injection: 188 kW, 330 Nm
- Extensive reinforcements on the engine and transmission
- New S tronic dual clutch gearbox offers quicker acceleration and better fuel efficiency (8.3 litres/100km and 198 grams of CO₂/km)
- Low geared six speed gearbox (8.5 litres/100km)
- Outstanding traction thanks to quattro four-wheel drive

- Firmer suspension settings, ride height 25 mm lower
- Lightweight aluminium components on the front axle
- 18" alloy wheels of S design
- High performance brake system with sports brake pads
- Sportily configured, precise electromechanical steering

- Xenon plus headlights and daytime running lights as standard
- Deluxe air conditioning as standard
- Sports embossed leather seats at front as standard
- Multifunction leather sports steering wheel, 3 spoke design
- Latest generation audio systems
- BOSE sound system

S3 model range & pricing

Audi S3 2.0 TFSI quattro manual	\$66,403
Audi S3 Sportback 2.0 TFSI quattro manual	\$68,310
Audi S3 Sportback 2.0 TFSI quattro S tronic	\$71,010

Long version

Power and dynamism - The Audi S3 Sportback

The S3 3-door has already raised the yardstick for dynamism in the premium compact class to new heights. The S3 Sportback now takes up pole position in its market segment – with an array of outstanding technical features, 188 kW output and quattro permanent four-wheel drive.

In common with all other S models from Audi, its impressive performance adheres to a rigorous principle – the idea of delivering an unadulterated driving experience that does not in any way undermine its suitability for everyday driving.

Performance

Two figures express its power, both of them among the best in the sporty class: from 0 to 100 km/h in 5.6 seconds (manual: 5.8 seconds), and a governed top speed of 250 km/h. The new Audi S3 Sportback offers the power and performance of a sports car. Its turbocharged two-litre, four-cylinder engine with FSI direct injection develops 188 kW at 6,000 rpm.

With an unladen weight of 1,495 kilograms, each kilowatt of the S3 Sportback needs to propel only 7.95 kg – that too, is a figure that places it among the super-speedy.

The S3 Sportback, a sports car built for everyday driving, is perfectly primed for high performance in every detail. Its entire drivetrain has been reinforced to enable it to reliably handle the engine's forces. The turbocharger and engine block have undergone extensive modifications that make it supremely powerful and resilient in all conditions.

Pulling power

There are two sides to the powerful TFSI engine. On one hand, it generates silky-smooth sports performance – with forceful response to the accelerator, revving with relish, and an ample, sonorous effect from the two oval chrome

tailpipes. On the other hand, it is supremely calm. It glides along in relaxed fashion at a torque plateau of 330 Nm, which is available as low as 2,500 rpm and remains constant up to 5,000 rpm with ample reserves in every situation.

The sporty character of the new S3 Sportback is complemented by the choice of six-speed manual gearbox or dual-clutch S tronic transmission. It efficiently passes on the engine torque to the quattro drive – power transmission to all four wheels secures the S3 Sportback a unique position in its class. Gripping the road securely as it emerges from bends, and with permanent driving safety in all weather conditions, quattro technology is a highly effective way of using this powerfully compact car's propulsion at any time.

The elaborate sports suspension with the four-link rear suspension gives the S3 Sportback dynamic self-steering behaviour. This fast, compact vehicle seems to crave any bend in the road, with its imposing 18" alloy wheels and size 225/40 tyres; it takes corners at high speed, unruffled and with virtually neutral self-steering behaviour.

The performance package is rounded off by a high-grip 17" brake system with sports brake pads as standard. The brake calipers are painted black and adorned at the front with the S3 logo.

Exterior design

The new S3 Sportback can be recognised at first glance thanks to a range of sharp lines – including the roof spoiler painted in the body color and side sills. The sides are dominated by the modified wide sills which underscore the car's road-hugging character.

At the front the radiator grille is fitted with chrome-plated, vertical double bars, the front bumper with a powerful spoiler lip hinting at an aerodynamic concept that is designed for increased downforces. The enlarged inlets provide a pointer to the powerful engine's performance potential. Chrome rings border the fog lamps. A platinum grey diffuser that improves downforce at the rear wheels and two large oval exhaust tailpipes sharpen up the design as do the redesigned tail light clusters. S-specific exterior

mirrors with indicators round out the design. Due to the standard sports suspension, the S3 Sportback sits 25 mm lower than the A3 Sportback variants.

Eleven paint finishes are available including the S-specific colours Solar Orange, Imola Yellow and Sprint Blue (with pearl effect).

Fitted as standard are new S design 18" alloy wheels and Xenon plus headlights with LED daytime running lights.

High –strength and ultra-high-strength steel components account for 62 percent of the new S3's panels. With its uncompromising torsional rigidity, the body provides an excellent basis for super-sporty handling and dynamic movement.

The dimensions

At a length of 4,302 mm, the new S3 Sportback is +72 mm longer than its 3-door stable-mate and stands +3 mm higher. Overall width remains the same at 1,765 mm.

Thanks to intensive aerodynamic fine-tuning, the drag coefficient is just 0.33.

Interior design

The interior conveys a sporty atmosphere, top-quality materials and painstaking workmanship. Numerous carefully crafted details inside the car likewise serve as pointers to the power of Audi's everyday sports car.

In the centre console and rear doors / side sections, the inlays are in black 'Piano finish', but are also available in matt brushed aluminium or fine grain birch wood grey at no extra charge.

The instrument cluster accommodates the computer's driver information system which includes a digital speedometer and – a new function – can also indicate lap times on a racing circuit, as in the RS 6 Avant.

There are other features supplied as standard which enhance comfort and convenience. Both front seats are adjustable in height, and a stand-up sun screen is integrated into the rear shelf. The deluxe air conditioning gauges the position of the sun by sensor and then takes it into account in its control strategy, allowing the temperature to be adjusted in two separate zones for the driver and front passenger.

Leather sports steering wheel reminiscent of a racing car

The substantial rim of the new optional leather sports steering wheel, which belongs to the new generation of Audi steering wheels, has a flat lower edge – a trait adopted from motor sport that also facilitates entry and exit. The new flat bottom design multifunction leather sports steering wheel is weight-optimised as it is made of a light skeleton of die cast magnesium. It is priced at \$700. The full rim S design multi function leather sports steering wheel is fitted as standard to the S3 Sportback.

The steering column can of course be adjusted longitudinally and in height, as is customary in an Audi.

The S3 initials are displayed on the steering wheel, the fittings, the gear knob and the door sills, and light up to greet the driver on the optional navigation system plus. The lever and the strips, as well as the four circular air vents and pedals have a high-quality aluminium look. The sporty interior atmosphere of the new S3 Sportback includes embossed Silk Nappa leather sport seats with prominent lateral supports for the back and thighs. Two tone Silk Nappa leather seats are available at \$400. quattro GmbH offer 'Audi exclusive' bucket seats that are available in black Fine Nappa leather upholstery for \$4,500.

There are also ultramodern, attractive features for the S3 in the field of communication – a standard Bluetooth mobile phone preparation and the latest-generation Symphony sound system with 6 disc CD and MP3 compatibility. The top of the range sound system from BOSE, which operates with a six-channel amplifier, is also standard on this luxury vehicle.

Practical quality: Large luggage compartment volume

With a load-through width of one metre and a volume of 370 to 1,100 litres, the Audi S3 Sportback offers one of the largest luggage compartment in its class. These values are a few litres lower in the variants with quattro drive due to the special rear axle.

A load-through aperture – with a rear centre armrest, cup holder and ski bag – is optionally available for \$500. The rear seat backrests can be split 1/3:2/3 as standard; they can be released and folded down effortlessly. The extended luggage compartment in the Sportback measures 1.54 metres.

Drivetrain

The TFSI engine in the new S3 Sportback, with a displacement of 1984 cm³ is the logical evolution of the Audi four-cylinder engine that is one of the group's most successful engines ever.

The competition beating hallmark of the TFSI is the way it creates a synthesis of two performance-boosting technologies that complement each other perfectly – turbocharging, which brought Audi rally driving victories over 20 years ago, and FSI petrol direct injection, likewise developed by the Ingolstadt-based manufacturer.

These two technologies transformed the sports car prototype Audi R8 into a record-breaking winner of the Le Mans 24 hours, making it a legend in its own time. By the time it was superseded by the R10 in the summer of 2006, it had won 64 of the 80 races in which it had participated.

Four victories: Engine of the Year

The technology that has caused sensation in the stiffest challenges in the world is likewise proving a success in production use. A jury of international automotive journalists voted the two-litre TFSI engine their category class winner for “Engine of the Year” on four successive occasions in 2005, 2006, 2007 and 2008 in recognition of its innovative technological package.

An FSI engine uses fuel more efficiently than a conventional indirect injection engine. It generates more power on lower fuel consumption when operating at part loads – another typical example of “Vorsprung durch Technik” from Audi.

In the FSI engine, the fuel is injected at a pressure of up to 110 bar into the combustion chambers, where a homogeneous fuel-air mixture of $\lambda = 1$ (one part fuel to 14.7 parts air) is formed.

Flaps in the intake tract, which also features a two-stage variable intake manifold, induce a rolling type of movement in the incoming air. The injectors atomise the fuel into this ‘tumble’ inside the combustion chambers.

During direct injection, as the fuel evaporates it extracts heat from the combustion chambers. This effect solves the fundamental problem encountered in conventional turbocharged engines – the high amount of heat generated, and the engine’s resulting tendency to knock, which normally necessitates a reduced compression ratio.

On the TFSI, Audi’s engineers achieved a compression ratio of 9.8:1 – an extremely impressive figure for a turbocharged engine. This substantially improves the engine’s thermodynamic efficiency. The intake camshaft, which can be adjusted continuously through 42 degrees crankshaft angle, contributes towards optimum cylinder charging. Two balancing shafts rotating at twice the crankshaft speed compensate for the second-order mass forces.

Fundamentally stronger: the engine block

Compared with its starting version with an output of 147 kW, the 188 kW engine of the S3 Sportback represents another evolutionary leap. Pistons with stronger pins and new rims as well as reinforced connecting rods with new bearings transmit the powerful forces to the crankshaft.

The cylinder block has been reinforced at the main-bearing pedestals and the main-bearing cap. The cylinder head consists of a new, extra-lightweight

aluminium-silicon alloy that exhibits high temperature resistance and strength.

The exhaust camshaft timing and the high-pressure injectors with increased cross-section have been adjusted to accommodate the increased power output.

The new turbocharger has a larger turbine and compression rotor than the basic unit. Its cast steel casing – produced as a single piece including the manifold – withstands exhaust gas temperatures of up to 1,050 degrees. The turbocharger generates a boost pressure of 1.2 bar instead of 0.9 bar on the 147 kW version.

The intercooler: 850 kg of air per hour

An intercooler drastically lowers the temperature of the compressed air, thus increasing the amount of air that is necessary for combustion. Both its housing and the mesh through which the air passes are made from aluminium; the depth of the mesh has been increased, resulting in considerably greater efficiency. The intercooler is capable of an air throughput of up to 850 kilograms per hour or, put another way, over 650,000 litres of air.

The new high-performance turbo engine tips the scales at only 152 kilograms, significantly less than comparable engines from direct competitors – with a positive impact on the axle load distribution and therefore on handling characteristics. With its compact dimensions – it is just 652 mm long, 648 mm wide and 666 mm high – the TFSI is ideal for transverse installation.

Whatever tasks the driver wishes the engine to perform, the powerful TFSI accomplishes them with ease, thanks to its 188 kW at 6,000 rpm. As a high-performance sports engine, it revs up effortlessly, responds intrinsically well to the throttle and produces striking acoustics.

The four-valve engine with undersquare configuration is simultaneously impressive for its powerful traction. It puts 330 Nm of torque onto the

crankshaft even at engine speeds as low as 2,500 rpm, and is able to maintain this high level of torque up to 5,000 rpm.

Road performance: power and efficiency

The 2.0 TFSI accelerates the new Audi S3 Sportback from 0 to 100 km/h in just 5.6 seconds (manual: 5.8 seconds), then on to a governed top speed of 250 km/h. Over the standard driving cycle it consumes just 8.3 litres (manual: 8.5 litres) of fuel over 100 km – further proof of the forward-looking efficiency of TFSI technology developed by Audi.

The new S3 Sportback is equipped with either a closely spaced six-speed gearbox, or a new S tronic dual clutch sports gearbox.

Three-shaft technology and the weight-saving magnesium casing mean that the manual gearbox is compact and light – entirely in keeping with its decidedly sporty overall configuration. The gears and shafts have been reinforced with an eye to the higher torques to be transmitted, and gearshift travel is now shorter: gear changes are accomplished swiftly and with ease, along the precise gate.

A genuine marvel of engineering, the revolutionary S tronic dual-clutch transmission has been a sensation ever since it debuted in the Audi TT 3.2 quattro in spring 2003. It combines the advantages of a compact six speed manual transmission with the qualities of a modern automatic.

The driver benefits from enormous agility and driving pleasure with acceleration that is both harmonious and dynamic, without any perceptible interruption in the power flow. This is coupled with good economy thanks to low fuel consumption, and convenient operation.

The ultra-compact S tronic with twin multi-plate clutch can simultaneously preselect two gears. With its ingenious electro-hydraulic operation, it shifts from one gear to the next in a split second. The S tronic makes the dynamic spearhead of the A3 family even speedier. It further reduces, by two-tenths of a second, the time required to accelerate from zero to 100 km/h to 5.6 seconds. At the same time, fuel consumption has improved to 8.3 litres/100km with CO2 emissions of just 198 g/km.

In common with all other S models, the new S3 Sportback has four driven wheels – an advantage that its direct competitors cannot match. The nerve-centre of the quattro drive technology that was developed specifically for transverse engines is an electronically controlled, hydraulically actuated multi-plate clutch: this is where the engine's power joins forces with the transmission's intelligence.

This clutch is located at the end of the propshaft, in front of the rear axle differential – the installed position at the rear improves the axle load distribution. A package of plates running in an oil bath within the clutch housing can be pressed together by controlled hydraulic power. The higher the pressure becomes, the more drive torque is diverted continuously to the rear axle.

The hydraulic multi-plate clutch: a pressing matter

The design, with a separate oil supply and two axial piston pumps for a rapid pressure build up, permits lightning-fast reactions when the driving conditions change – the clutch's control unit constantly analyses the situation on the basis of a wide range of data.

Depending on the degree of slip between the front and rear axles, an oil pressure that squeezes together the package of plates builds up. At its extreme, as much as 100 percent of the drive torque is diverted to just one set of wheels. The superimposed electronics are able to regulate the oil pressure and therefore the torque distribution as dictated by the situation. This equips the Audi S3 Sportback with maximum traction and slip-free acceleration from the moment it starts to move.

It also provides ample reserves for the transmission of cornering forces – S3 Sportback drivers consequently know they will benefit from optimum safety and lots of driving fun whatever the conditions. From the clutch to the wheel bearings, the drivetrain has been reinforced in every critical area, thus enabling it to transmit the engine's high propulsive power with confident eases.

Dynamic chassis

The premium compact A3 already features a very mature chassis design, all components of which have undergone some decisive improvements compared with the previous model. The engineers have refined it even further for use in the top sports model – the S sports suspension exhibits the qualities that one would expect of a sports car.

The springs and dampers are correspondingly firmer, in line with the car's ultra-sporty character, and the body is slung 25 mm lower. At 1,522 mm at the front and 1,506 mm at the rear, the new S3 Sportback now has a wider track. Imposing newly designed 18" alloy wheels made from cast aluminium with size 225/40 tyres are standard.

The front axle: even more lightweight aluminium components

The front suspension uses a classic design principle – a McPherson structure with spring struts, triangular lower wishbones and an anti-roll bar. The aluminium subframe is bolted to the longitudinal member, keeping the forward structure very rigid. The wishbone consoles are equally of aluminium. On the S3 Sportback, the pivot bearing and the triangulated wishbone are likewise made from aluminium – this optimizes the weight distribution between the two axles and benefits the unsprung weights, which are important for the handling characteristics and ride comfort.

The front-axle bearings have been updated compared with the A3, for an even more spontaneous steering response and even more precise handling.

The electromechanical rack-and-pinion steering familiar from the A3 has been matched to the S sports suspension, with the result that it gives the driver optimum feedback from the road in every situation. It remains largely unsusceptible to feedback from the drivetrain.

Unlike a hydraulic assembly, it only uses energy whenever the steering is actually being turned. The S3 Sportback reacts to all steering commands with high precision and spontaneity. The self-steering behaviour is neutral right up to the very high handling limit, which signals itself to the driver through slight understeering.

The rear axle: three wishbones and one trailing link

The rear axle, notable for its excellent handling from the A3, has remained unchanged in terms of its basic components; its springs and dampers have been adjusted to settings typical of a sports car. The four-link structure comprises two lower wishbones, one upper wishbone and one trailing link. All links are made from high-strength steel grades.

The three wishbones are connected to the aluminium subframe by means of relatively rigid mounts, in the interests of optimum directional stability; the subframe, which also supports the anti-roll bar and the quattro final drive, is bolted to the floor assembly.

The coil springs and gas-filled shock absorbers are arranged separately, permitting a larger through-loading width in the luggage compartment.

Benefit: soft longitudinal response

The elaborate structure combines a whole raft of advantages. It is lightweight and compact, and can absorb the longitudinal and lateral forces acting on it independently. The advantage of this is that each bearing can be tuned precisely depending on its function. On the one hand, the engineers have achieved a very high degree of transverse rigidity for optimum driving dynamics, while on the other hand the trailing links are set up soft enough to provide outstanding ride comfort.

The brake system is closely in tune with the talents of the Audi S3 Sportback. Four large-dimension, ventilated disc brakes provide safe, dependable deceleration. The front discs measure 345mm in diameter. The black-painted calipers, sporting the S3 emblem, house sports brake pads that combine high performance with incisive response.

The brake management: ESP and EDL

A brake assist system that automatically builds up full pressure in the system in emergency situations is part of the standard specification, as is the ESP electronic stabilization program. It integrates such features as the

electronic differential lock EDL, which applies the brakes to enhance traction when accelerating whenever the grip beneath the wheels is inconsistent.

ESP intervenes subtly and precisely. If the driver presses the brakes hard, they will experience the pedal as direct, taut and progressive, with short free travel.

Equipment

It is in the very genes of all Audi S models that they come with highly sophisticated, exclusively sporty equipment. The new S3 Sportback has a host of features that are taken straight from higher priced model ranges.

These include Xenon plus headlights as standard equipment. They are combined with LED daytime running lights - a safety technology that Audi has played an instrumental role in pioneering. The adaptive cornering lights are also available as an option.

By way of passive protection there are six airbags, including the SIDEGUARD head airbag system, which extends from the A to C-pillars, protecting front and rear passengers, as well as front and side airbags integrated into the driver and passenger seats. In the event of a rear-end collision, the front seats cushion the upper body and support the head thanks to their special shape. Belt force limiters are fitted on all outer seats.

Audi magnetic ride: Dynamics precisely as desired

An impressive high-tech solution is now available for the S3 Sportback: The electronic shock absorber control system, Audi magnetic ride, solves the conflicting aims of comfort and vehicle dynamics. Once again, the S3 Sportback easily leaves its rivals standing with this technology.

A synthetic hydrocarbon oil, in which minute magnetic particles with a grain size of just three to ten micrometers (one thousandth of a millimetre) are enclosed, circulates in the shock absorber plungers. Applying voltage to a coil leads to the formation of a magnetic field, in which the alignment of the

particles changes. They are positioned transverse to the oil's direction of flow, thereby inhibiting its flow through the plunger ducts. This changes the damping characteristics within a matter of milliseconds.

The system's control unit constantly analyses the status of the road and the driver's style, and adjusts its operating mode adaptively. The driver can switch between normal and sports mode at the push of a button. In the normal setting – with high oil flow – the S3 Sportback offers a well-balanced, comfortable ride. In sports mode – with low viscosity – it hugs the road tightly and closely; rolling motions are consistently suppressed. The steering responds even more precisely, and specific support of the wheels makes the vehicles' self-steering behavior even more neutral.

Park Assist system: The S3 Sportback steers itself into the parking space

The Park Assist system is a brand new high-tech system. It operates using ultrasonic sensors which register longitudinal parking spaces at the side of the road when the vehicle is traveling at speeds below 30 km/h. If a space is sufficiently large to reverse into, a corresponding indication is provided in the driver information system.

If the driver now engages reverse gear and accelerates, the Park Assist system takes over the electromechanical steering – it automatically steers the S3 Sportback into the space in one manoeuvre. The driver only has to operate the accelerator, the clutch and the brake due to reasons of safety.

The compact sports car: History of the Audi S3

The concept outwardly identified by the letter S represents an established philosophy at Audi; it has been the embodiment of sports power for over two decades. The S1 from 1985, the legendary final stage in the evolution of the Sport quattro for the Rally World Championship, came to epitomise triumphs in competition racing.

After this, Coupe S2 was the first production car allowed to use the letter as part of its name, making its first appearance with a 147 kW five-cylinder

turbo engine as the successor to the “Ur-quattro” in 1990. The S2, too, now featured quattro four-wheel drive.

This combination of a turbo engine and quattro still enjoys immense appeal. A direct line of evolution can be traced between the S2, with its dynamic but refined character, and the new S3 3-door and Sportback which now spearhead the compact car line. The S3 in 1999 featured a 1.8-litre turbo engine which offered an output of 144 kW; with a new engine management system from fall 2001 onwards, this actually increased to 165 kW. The S3 completed the North Loop of the Nürburgring in just 8 minutes 41 seconds during testing. A sharp look indicated the compact, dynamic vehicle's capabilities to the outside world; Recaro seats and piano finish black trims lent the interior a sporty, luxurious touch. The S3 achieved impressively high unit numbers: 32,021 vehicles were built.

In June 2003, Audi launched the second generation of the A3, initially with three doors again. The fall saw the launch of the quattro variants and the dual-clutch transmission, S tronic, a further revolution in the powertrain sector. One year later, the Sportback made its debut, completely reinterpreting the concept of five-door premium compact vehicles – today, it makes up a good two thirds of the A3 model line.

In total Audi has sold more than 170,000 S models, including 32,000 of the first-generation S3. The S3 is lean and precise in focusing on maximum sports performance. Alongside the S4, S6 and S8 it rounds off the successful S range.

Throughout all of this time, the A3 family has enjoyed outstanding success: 230,849 vehicles were built in 2007 alone, the fourth record year in a row. At the end of March 2008, the one millionth second-generation vehicle was celebrated, an A3 Sportback 2.0 TDI with 103 kW (140 hp), painted Brilliant Red. Since 1996, Audi has built over 1.9 million A3 vehicles. In 2007, production was extended to the new plant in Brussels, in addition to the parent plant in Ingolstadt. In both locations, over 800 A3 series vehicles roll off the assembly line each day.

Of the growing market for high-powered compact cars, the new S3 Sportback is aimed at customers who express a keen interest in technical innovations.

They are young – with an average age of 38 – generally male, and with a relatively high income. On top of the driving fun and performance that the regular A3 offers, these customers are looking for a car offering considerable everyday utility for sport and leisure activities but suitably differentiated by its exclusive equipment and visual finish.