

The new BMW 6 Series Coupé. The new BMW 6 Series Convertible. Contents.



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1. Description in Brief.



- New edition of the BMW 6 Series Coupé and BMW 6 Series Convertible successful the world over and built more than 75,500 times so far, strengthening the position of the Coupé as the leading 2+2-seater in the luxury segment in both technological and dynamic terms, and reinforcing the sporting, modern and exclusive features of the Convertible.
- The BMW 6 Series as the authentic re-interpretation and progressive continuation of the Gran Turismo heritage, a car concept deeply embedded in a 70-year history of successful, sporting, technologically leading and stylish Coupés and Convertibles in the luxury segment.
- Careful accentuation of the exterior design confirming the sporting qualities of the Coupé and Convertible, continuation of the prize-winning sculptural design with smooth lines extending all round the car, surfaces flowing into one another and a dynamically stretched silhouette, consistent perfection of the harmonious lines by modifying various details both front and rear.
- Fresh accentuation within the interior by carefully updating the controls and instruments and introducing new compositions of materials and colours, iDrive Controller, rotary knobs for the air conditioning and audio system, door openers and glove compartment push button in new high-quality material, interior trim and upholstery in new colour schemes, leather upholstery in SunReflective Technology in the BMW 6 Series Convertible reducing the heat effect of the sun.
- 4.8-litre eight-cylinder developing 270 kW/367 hp and offering enhanced efficiency as the top engine in the new BMW 650i Coupé and the new BMW 650i Convertible, newly developed 3.0-litre straight-six with High Precision Injection in the lean-burn mode on the new BMW 630i Coupé and the new BMW 630i Convertible, comprehensive implementation of the BMW EfficientDynamics development strategy in all engine variants, Brake Energy Regeneration, on-demand control and operation of the engine's ancillary units, steering system with Varioserv steering assistance pump, heat-optimised final drive reducing frictional losses, gearshift point indicator, fuel consumption reduced up to 5 per cent (eight-cylinder) and, respectively, 15 per cent (six-cylinder) versus the former models, unique balance of engine power and economy unparalleled in this drive segment.

- The first and only diesel-powered models in the segment, the BMW 635d Coupé and BMW 635d Convertible featuring a 3.0-litre straight-six diesel engine, the third model variant highlighting the long-distance touring qualities and sporting character of the BMW 6 Series Series by combining exceptional efficiency with supreme torque and pulling power, the most sporting and powerful 3.0-litre straight-six diesel in the world with Variable Twin Turbo, all-aluminium crankcase and third-generation common rail fuel injection, 210 kW/286 hp, maximum torque 580 Newton-metres/427 lb-ft.
- Newly developed six-speed automatic sports transmission (standard in the BMW 635d), unparalleled gearshift dynamics, extremely short reaction and gearshift times, direct connection to the engine, gearshift paddles on the steering wheel, sports button for an even faster gearshift as well as adjustment of gas pedal progression and Servotronic control map on the regular steering.
- Electronic gear selector lever on the new automatic sports transmission with unique optical, ergonomic and functional qualities, iDrive Control extended by eight freely programmable favourite buttons.
- The BMW 6 Series as the spearhead in innovation for driving dynamics, safety and comfort: Now available for the first time with Adaptive Headlights and variable light distribution, the only car in its segment with Active Cruise Control incorporating an automatic brake application function, Active Cruise Control with stop & go function to maintain distances in flowing traffic and when driving dead slow, Lane Departure Warning with vibration signal on the steering wheel, Head-Up Display, BMW Night Vision and high-beam assistant, navigation system with full-word voice entry, BMW Individual High-End Audio System.
- Lightweight chassis with aluminium double-joint tiebar axle at the front and aluminium integral IV axle at the rear, Dynamic Stability Control (DSC) with additional functions, extra-powerful and precise premium brake system, Dynamic Drive with active anti-roll bars, Active Steering, permanent, ongoing brake pad wear indicator, tyre defect indicator, runflat tyres.
- Headrests activated in the event of a collision to reduce the risk of injury in the event of an impact from the rear, supplementing the all-round safety package for passive occupant safety, all seats with three-point inertia-reel seat belts, adaptive control and activation of frontal airbags, side airbags, BMW 6 Series Coupé equipped with extra-large head airbags, BMW 6 Series Convertible featuring electronically controlled rollover protection activating the rollbars behind the rear seats.

- Engine variants BMW 6 Series Coupé:
BMW 650i: eight-cylinder petrol engine featuring VALVETRONIC and double-VANOS, capacity 4,799 cc,
max output 270 kW/367 hp at 6,300 rpm,
max torque 490 Nm/361 lb-ft at 3,400 rpm,
acceleration 0–100 km/h in 5.4 seconds, top speed 250 km/h (155 mph),
average fuel consumption to the EU standard 11.7 ltr/100 km
(equal to 24.1 mpg imp) (with automatic sports transmission 10.5 litres,
equal to 26.9 mpg imp).

BMW 630i: straight-six petrol engine with second-generation direct fuel
injection (High Precision Injection), capacity 2,996 cc,
max output 200 kW/272 hp at 6,700 rpm,
max torque 320 Nm/236 lb-ft between 2,750 and 3,000 rpm,
acceleration 0–100 km/h in 6.2 seconds, top speed 250 km/h (155 mph),
average fuel consumption to EU standard 7.9 litres/100 km
(equal to 35.8 mpg imp) (with automatic sports transmission
7.7 litres/36.7 mpg imp).

BMW 635d: straight-six diesel with common rail fuel injection and Variable
Twin Turbo (VTT), capacity 2,993 cc,
max output 210 kW/286 hp at 4,400 rpm,
max torque 580 Nm/427 lb-ft between 1,750 and 2,250 rpm,
acceleration 0–100 km/h in 6.3 seconds, top speed 250 km/h (155 mph),
average consumption to EU standard 6.9 litres/100 km (40.9 mpg imp).
- Engine variants BMW 6 Series Convertible:
BMW 650i: eight-cylinder petrol engine featuring VALVETRONIC and double-
VANOS, capacity 4,799 cc, max output 270 kW/367 hp at 6,300 rpm,
max torque 490 Nm/361 lb-ft at 3,400 rpm,
acceleration 0–100 km/h in 5.5 seconds, top speed 250 km/h (155 mph),
average fuel consumption to the EU standard 12.6 ltr/100 km
(equal to 22.4 mpg imp) (with automatic sports transmission:
10.9 litres, equal to 25.9 mpg imp).

BMW 630i: straight-six petrol engine with second-generation direct fuel
injection (High Precision Injection), capacity 2,996 cc,
max output 200 kW/272 hp at 6,700 rpm,
max torque 320 Nm/236 lb-ft between 2,750 and 3,000 rpm,
acceleration 0–100 km/h in 6.7 seconds, top speed 250 km/h (155 mph),
average fuel consumption to EU standard 8.3 litres/100 km
(equal to 34.0 mpg imp) (automatic sports transmission
8.1 litres/34.9 mpg imp).

BMW 635d: straight-six diesel with common rail fuel injection and Variable Twin Turbo (VTT), capacity 2,993 cc, max output 210 kW/286 hp at 4,400 rpm, max torque 580 Nm/427 lb-ft between 1,750 and 2,250 rpm, acceleration 0–100 km/h in 6.6 seconds, top speed 250 km/h (155 mph), average fuel consumption to EU standard 7.2 litres/100 km (39.2 mpg imp).



2. Authentic, Progressive, Gran Turismo. The new BMW 6 Series Coupé. The new BMW 6 Series Convertible. (Short Version)

Two dream cars are setting out on the next lap. Featuring highly attractive modifications to their characteristic design, an interior further refined in many details and boasting new colour highlights as well as innovations in drive technology and on the driver assistance and safety systems, the new BMW 6 Series Coupé and the BMW 6 Series Convertible offer an even greater thrill and more style than ever before.

Indeed, through their looks and style, combined with cutting-edge technology, both models are an authentic representation of the classic Gran Turismo featuring modern highlights together with classic qualities.

The most important innovation within the engine compartment is the diesel engine providing superior torque and economy for the first time in a car of this class, the most powerful 3.0-litre straight-six diesel in the world giving the BMW 6 Series EfficientDynamics of a particularly impressive standard.

The petrol engines also feature a wide range of modern improvements optimising both fuel consumption and exhaust emissions, among them High Precision Injection on the straight-six, that is the most advanced system of direct fuel injection, Brake Energy Regeneration, and on-demand control and management of the car's ancillaries.

The new six-speed automatic sports transmission is tailored perfectly to the character of the BMW 6 Series, combining comfortable cruising with the option at any time to use the full power and muscle of the engine for all-out acceleration and driving dynamics.

Style and sport are indeed the strongholds of the BMW 6 Series: Either as an elegant Sports Coupé in the proud tradition of a genuine Gran Turismo or as a dynamic Luxury Convertible enabling the driver and passengers to enjoy the wind rushing by in an incomparable manner. Both models combine their strengths with the convincing everyday driving qualities of a large and spacious 2+2-seater.

The BMW 6 Series Coupé and Convertible stand for a heritage of no less than 70 years dedicated to the thrill of mobility and success in motorsport. Cars such as the BMW 327/328 Coupé, the BMW 3200 CS, the BMW 3.0 CSi or the first generation of the BMW 6 Series to this day still represent the unique combination of elegance and competition-oriented sportiness so characteristic of BMW.

The history of exclusive and dynamic driving pleasure with nothing but the sky above was originally introduced in the BMW 327 Convertible, the BMW 335 Convertible, and the BMW 503 Convertible, all of them milestones in technology and design, with a strong and lasting impact on the ongoing development of the brand and its products.

The BMW 6 Series today also plays a significant role within the brand's model portfolio. It is indeed the benchmark for innovation, a powerful expression of progress in technology and, at the same time, the strong performer interacting with a particularly demanding target group. Cars of this kind establish a particularly active relationship between the manufacturer and the customer, the dedicated driver opting for a BMW 6 Series Coupé or, respectively, a BMW 6 Series Convertible showing a clear preference for the BMW brand and, at the same time, a strong affinity to innovations in technology, premium quality, and individual style.

An attitude of this kind creates a particularly close relationship with the product and its features not only prior to, but also after purchasing the car. Innovations of this standard endorsed and acknowledged by the critical customer of this calibre have the potential to define the progress of the entire brand. This, in turn, makes the BMW 6 Series a role model not only in design, but also in its control and operating concept, its comfort functions, chassis and suspension technology, and driver assistance systems.

More than 75,500 cars built within just over three years are impressive proof of the close link between the BMW brand and the tradition of the sophisticated, top-quality Gran Turismo. In this segment, facing keen competition from a number of high-ranking competitors, the BMW 6 Series, measured in terms of registration figures, ranks a proud second among all luxury sports cars the world over. In other words, right from the start it immediately left all competitors with comparable all-round qualities far behind.

Clearly dynamic: new highlights in exterior design.

The BMW 6 Series boasts powerful innovations characteristic of the brand and its leadership over the competition not only through the cars' power units. For in their design and style, both the 6 Series Coupé and the 6 Series Convertible offer a level of quality only the development process applied by the BMW Group is able to achieve.

While the engineers responsible for developing the drivetrain benefit from skills and the art of engineering going back decades in enhancing the level of perfection to an ever-increasing standard through new technologies such as EfficientDynamics, the success of BMW design lies in the ability to interpret

the traditional values of the brand with supreme creativity in looking into the future. Hence, the design and styling of the BMW 6 Series clearly reflect the highly dynamic, refined, top-quality and progressive technical standard of the car as a truly authentic rendition of this supreme standard.

The overall design and look of both models, offering perfect harmony and balance to the last detail, is borne out in particular by the sculptural look of both cars, the Coupé and Convertible providing a perfect match of all lines and design features. Indeed, the smooth, uninterrupted flow of all characteristic lines on the BMW 6 Series ensures harmonious interplay of the front section, the sides and rear sections of the car, the generous and powerfully curved surfaces all coming together to provide a harmonious picture to be admired in its sporting elegance and dynamic class from every angle and every perspective.

Offering this unique design language, the BMW 6 Series Coupé stands out as a modern and innovative interpretation of the classic Gran Turismo. And in the same way the BMW 6 Series Convertible, through its design, is a proud symbol of sporting and elegant driving pleasure with nothing but the sky above.

Powerful and full of presence from every perspective.

Detailed highlights and special features give the new BMW 6 Series even greater presence in and through the elementary messages of the car's design. Appropriate refinements offer an even clearer and more convincing expression of the car's sculptural character both at the front, from the sides, and at the rear, focusing in particular on the sporting characteristics and strengths of the BMW 6 Series.

Both the Coupé and Convertible now have an even more powerful and striking stance on the road, the strong lines extending all the way from the A-pillars along the entire engine compartment lid to the BMW kidney grille and forming a dynamic arrow further emphasised by the powerfully chiselled bars in the lower air intake.

The air intake itself is even wider than on the former model and borders at the bottom on a new contour edge significantly highlighting the wide track of the car. The newly designed direction indicators, in turn, featuring LED light units with a crystalline effect, provide an even more distinctive signal than before.

Through their striking contours, the headlights give the front end of the BMW 6 Series a clear, focused look, new light technology adding further brilliance. Featured as standard, the bi-xenon dual round headlights are covered by a layer of clear glass at the surface, their corona rings now offering BMW's typical daytime lights function.

With its long wheelbase, the long and sleek engine compartment lid, the greenhouse moved far to the back and the low roofline tapering out gently to the rear of the car, the BMW 6 Series has all the proportions of a classic coupé. And thanks to its unique Finn roof, the BMW 6 Series Convertible also offers the same, dynamically stretched silhouette.

The light edge on the side-sills is even more pronounced and distinctive than before on the new BMW 6 Series, offering extra volume and contours to highlight the sporting character of the car. The new metallic paint colours Deep Sea Blue and Space Grey, as well as three new light-alloy rims, offer further options in rounding off the sporting elegance of the new BMW 6 Series according to the customer's individual preferences.

In the process of modifying the rear end of the car, BMW's designers have harmoniously continued and enhanced the concept of ongoing lines extending around the entire vehicle. The section of the luggage compartment lid beneath the spoiler lip is even more concave in design than before, rising up less steeply to provide not only an even more dynamic look, but also even more distinctive light/shade contrasts, making the entire rear end of the car look even lower and more dynamic.

On both the Coupé and Convertible, the additional brake light is now integrated in the spoiler lip. The inner structure of the rear lights has also been modified to reflect the new lines of the car, with all light sources now being LED units.

The harmony of lines on the luggage compartment lid, the rear lights and reflectors is likewise more intense and striking than before, the line formed by the lower edge of the rear spoiler sweeping gently downwards, where it is taken up by the outer contour of the rear lights. Then, following the design of the lights, the spoiler line, while still moving down, sweeps to the inside, where it is taken up by the contour of the low, even more stretched-out and sleeker reflectors.

BMW 6 Series all the way: harmony of design outside and inside.

The stylish and elegant dynamism of the car's exterior design continues smoothly and harmoniously within the interior of the BMW 6 Series. Bearing a clear analogy to the exterior design of the car, the concept of dynamic harmony forms clear, flowing lines and tense, muscular surfaces. As an example, the sweeping cover above the dashboard starting beneath the windscreen extends back on both sides in an ongoing, dynamic line leading into the door panels and surrounding the armrests. Both the driver and front passenger are therefore cocooned by tense, even exciting design elements continuing all the way to the centre console between the rear seats, thus emphasizing both the sophisticated style and elegance of the interior in a genuine visual and tangible experience.

The exclusivity of the new BMW 6 Series is enhanced to an even higher standard by appropriate refinements in the quality of materials on specific controls and instruments finished in new Chrome Pearl Grey Design as well as new colours for the interior trim and upholstery.

As an alternative to the "standard" version, optional interior trim strips made of grained maplewood, dark birchwood, or aluminium with a longitudinal grain pattern give the interior either an even more sophisticated, stylish and elegant, or a more technical and progressive touch.

Optional finish in Pearl exclusive leather, with additional leather on the armrests, the door grab handles and the centre console, is now also available in Chateau Red and in a new upholstery colour, Saddle Brown.

Featuring a combination of leather and Pearl Grey chrome, the iDrive Controller matches the look of the new rotary buttons, thus additionally enhancing the overall harmony of the car's design.

Precise control of the system is further facilitated by a ring around the Controller made of extra-hard rubber, and to ensure even more intuitive use, the iDrive control system in the new BMW 6 Series comes complete with eight programmable favourite buttons allowing direct access to selected functions.

The engines: even more dynamic, even more efficient – and for the first time also a diesel.

To show a clear sign of supremacy, a car – just like a human being – has to be a leader. And the new BMW 6 Series expresses this leadership once again also in its engine technology, the progressive character of the car being borne out not least by the unique implementation of BMW EfficientDynamics also in this segment.

Forming an major highlight in BMW engine development, the technologies introduced in and through BMW EfficientDynamics to reduce both fuel consumption and exhaust emissions are featured consistently also in the eight- and six-cylinder power units of the new BMW 6 Series.

A particular highlight is the availability of a diesel engine for the first time in this segment, on both the Coupé and Convertible. Indeed, this is the world's most powerful and dynamic three-litre straight-six diesel now offering its supreme power and efficiency in two particularly desirable cars. Displacing 3.0 litres, the new power unit featuring an all-aluminium crankcase, Variable Twin Turbo (VTT) technology and third-generation common rail fuel injection develops maximum output in the BMW 635d Coupé and the BMW 635d Convertible of 210 kW/286 hp, plus maximum torque of 580 Newton-metres/427 lb-ft. And through its low weight quite outstanding for a diesel of this calibre, the new engine enhances both the efficiency and agility of the BMW 6 Series.

Referred to also as two-stage turbocharging, the VTT System is made up of two turbochargers varying in size. First, the small turbocharger cuts in at low engine speeds, developing superior power and torque spontaneously and without the slightest delay in response to even the smallest movement of the accelerator pedal thanks to its low level of inertia. Then, with engine speed increasing, the second, larger turbocharger also cuts in, giving the engine its maximum torque at just 1,750 rpm, with maximum engine power at 4,400 rpm.

The new high-performance diesel clearly expresses its sporting character in accelerating to 100 km/h, an exercise completed by the BMW 635d Coupé in 6.3 and by the BMW 635d Convertible in 6.6 seconds. Top speed of both models, in turn, is limited electronically to 250 km/h or 155 mph.

Returning average fuel consumption in the EU test cycle of 6.9 litres on the Coupé (equal to 40.9 mpg imp) and 7.2 litres on the Convertible (equal to 39.2 mpg imp), the BMW 635d sets the benchmark for efficiency in its segment. The increase in the car's cruising range all the way to 1,015 kilometres or 629 miles on the Coupé and up to 970 kilometres or 601 miles on the Convertible clearly benefits the long-distance motoring qualities of the car as a traditional symbol of a genuine Gran Turismo.

Unparalleled supremacy: the eight-cylinder in the BMW 6 Series.

Offering the pinnacle of supreme power and performance, the new BMW 6 Series again comes with an eight-cylinder right at the top of its range: Developing maximum output of 270 kW/367 hp at an engine speed of 6,300 rpm and maximum torque of 490 Newton-metres/361 lb-ft at 3,400 rpm, the 4.8-litre in the BMW 650i Coupé and the BMW 650i Convertible ensures the highest standard of motoring in style.

This ultra-modern aluminium power unit comes complete with BMW's throttle-free VALVETRONIC valve management, double-VANOS variable camshaft control on both the intake and exhaust side, as well as an intake manifold switching to two different positions.

Benefiting from these highlights in technology, newly tuned engine management, and a wide range of high-tech features serving to reduce fuel consumption, the eight-cylinder offers not only supreme smoothness and refinement, an immediate response and a "beefy" torque curve, but also a high standard of economy with fuel-efficient lean-burn operation throughout a wide load range including higher engine speeds, thus ensuring a significant reduction of fuel consumption also in everyday traffic.

The new BMW 650i Coupé accelerates to 100 km/h in 5.1 seconds, and completing the same exercise in 5.5 seconds, the Convertible also offers the dynamic performance of a thoroughbred sports car. Electronic engine management limits the top speed of both models to 250 km/h or 155 mph.

Average fuel consumption in the EU test cycle is 11.7 litres/100 kilometres on the Coupé and 12.6 litres/100 km on the Convertible (equal to 24.1 and, respectively, 22.4 mpg imp). On the road, this means a reduction in fuel consumption versus the former models by up to 5 per cent, a clear sign of further progress in the spirit of BMW EfficientDynamics also in this performance class.

Innovative: straight-six power unit with High Precision Injection.

The 3.0-litre power unit with its composite magnesium/aluminium crankcase in the BMW 630i represents the latest state of the art in six-cylinder engine technology. The most important innovation in this context is BMW's High Precision Injection, second-generation direct gasoline injection allowing fuel-efficient lean-burn operation throughout a wide load range including high engine speeds and therefore reducing fuel consumption significantly also in everyday traffic.

This progress is provided by innovative piezo-injectors arranged between the valves and injecting fuel directly to the area around the spark plug. Together with numerous other technologies serving to reduce fuel consumption, direct fuel injection in the lean-burn mode is part of BMW EfficientDynamics, BMW's cutting-edge development strategy offering results and improvements now being implemented step-by-step in all of BMW's model series.

Standing out as the currently most advanced six-cylinder, this superior power unit develops maximum output of 200 kW/272 hp in the new BMW 630i Coupé and the BMW 630i Convertible, that is 10 kW/14hp more than in the former engine with conventional fuel supply and engine management. Maximum torque, in turn, is 320 Newton-metres or 236 lb-ft.

On the road, this means acceleration to 100 km/h in the Coupé within 6.2 seconds, and acceleration to 100 km/h in the BMW 630i Convertible in 6.7 seconds. Again, top speed on both models is limited electronically to 250 km/h or 155 mph.

Average fuel consumption of the BMW 630i in the EU test cycle is just 7.9 litres/100 kilometres on the Coupé and 8.3 litres/100 km on the Convertible, equal to 35.8 and, respectively, 34.0 mpg imp. This is an improvement of up to 15 per cent over the former models, which already boasted a very high standard of fuel efficiency.

Fuel economy and emissions optimised on all models.

A wide range of fuel-saving features in and around the engine also serve to make all of the power units in the new BMW 6 Series even more efficient. One example is Brake Energy Regeneration on all variants of the new BMW 6 Series, an intelligent energy flow management concept concentrating the generation of electricity for the car's on-board network on the overrun and brake phases. And to further promote an economic style of motoring, the manual gearbox versions of the new BMW 6 Series also come with a gearshift point indicator.

Further new technologies serving to save fuel provide their superior effect without any intervention by the driver. The belt drive for the a/c compressor, for example, comes with its own clutch automatically disconnecting the compressor as soon as the driver switches off the air conditioning. Cooling air flaps either opened or closed as a function of driving conditions serve likewise to optimise not only noise comfort, but also the car's streamlining on both the BMW 635d Coupé and the BMW 635d Convertible.

Incorporating an electrical coolant pump, thermal management on the straight-six power unit in the BMW 630i, in turn, varies the car's cooling efficiency as a function of actual requirements, regardless of engine speed. And last but certainly not least in this context, the Varioserv steering assistance pump featured on all variants of the new BMW 6 Series ensures particularly efficient steering support and assistance according to the driver's current requirements.

New automatic sports transmission with paddles on the steering wheel.

On the new BMW 630i and the new BMW 650i, engine power is delivered to the rear wheels as standard via a six-speed manual gearbox. An alternative also available to the discerning customer is the newly developed six-speed automatic sports transmission featured as standard on the new BMW 635d and combining supreme comfort with unusually short reaction and gearshift times in true Gran Turismo style, direct connection to the engine also offering dynamic power and performance for sheer driving pleasure at all times.

The driver controls the automatic sports transmission by means of an electronic gear selector lever, moving the lever briefly to the left from position D in order to activate the manual gearshift mode. This allows the driver to shift gears either via the gear selector lever or manually in a sequential mode by means of paddles on the steering wheel. Yet a further option is to shift gears manually directly from the paddles, while pressing the Sports button positioned behind the gear selector lever, the driver is able to enjoy an even faster and dynamic gearshift. A further benefit is that the Sports button also modifies the progressive action of the gas pedal and, in conjunction with the car's standard steering, the Servotronic control map, providing optimum conditions for dynamic acceleration.

Important innovations for even greater driving pleasure, safety and comfort.

Greater dynamism, enhanced safety, extra comfort – with its wide range of standard features and numerous other, optionally available high-tech improvements, the BMW 6 Series offers sheer driving pleasure of a truly incomparable, exclusive and fascinating kind. So like the BMW 7 Series, the BMW 6 Series is a particularly impressive demonstration of leadership in technology in terms of its comfort functions, chassis and driver assistance, both the Coupé and Convertible perfectly reflecting the innovative power of the BMW brand.

All-aluminium suspension for enhanced agility, safety and comfort.

Both the BMW 6 Series Coupé and the Convertible are characterised by fascinating, sporting and superior driving characteristics at all times and under all conditions. Featuring high-performance power units, rear-wheel drive, excellent axle load distribution, and an ultra-modern all-aluminium suspension, the BMW 6 Series offers a supreme driving experience under all conditions. The principle of lightweight construction on the chassis and suspension, in turn, guarantees supreme stability on low weight and minimises the car's unsprung masses.

The high-performance swing-calliper brakes with inner-vented brake discs are controlled hydraulically on the BMW 6 Series, now acting even faster and more precisely than before in guaranteeing maximum stability and full brake power at all times.

A further important feature of the premium brake system on the BMW 6 Series is its low weight, the high-performance brakes on the BMW 650i being specially adapted to the supreme power of this outstanding eight-cylinder. And last but not least, all models in the BMW 6 Series come with a continuous brake pad wear indicator.

DSC Dynamic Stability Control with optimised control action.

Offering a wide range of functions, DSC Dynamic Stability Control supports the driver in the process of handling his BMW safely and with superior style. The first and foremost DSC function is to apply the brakes individually on the car's various wheels as required, or to intervene in engine management in order to counteract any over- or understeer in bends.

DSC also comprises the ABS anti-lock brake control system as well as ASC Automatic Stability Control preventing the drive wheels from spinning on loose or slippery ground, a Brake Assistant, and CBC Cornering Brake Control to avoid under- or oversteer in bends.

Further functions are Fading Compensation whenever the brakes become particularly hot, regular Dry Braking to optimise the car's stopping power in wet weather, and a Start-Off Assistant enabling the driver to set off smoothly and without the car rolling back on an uphill gradient, without having to use the handbrake.

The Brake Assistant in the new BMW 6 Series forming part of the DSC control system is networked with the car's other driver assistance systems, interacting with Active Cruise Control with its Stop & Go function available as an option in order to detect the need for extra stopping power in good time. This is done by radar sensors incorporated in the system, with the brakes being pre-loaded by reducing the normal activation thresholds on the hydraulic Brake Assistant.

Yet a further innovation is the pre-loading brake function moving the brake pads closer to the discs for immediate build-up of brake pressure, thus avoiding the slightest delay in the process of applying the brakes. In the event of an emergency braking manoeuvre, this precaution enables the brakes to build up their maximum stopping power much faster than usual, making stopping distances a lot shorter and offering valuable safety reserves.

Activated at the touch of a button, DTC Dynamic Traction Control serves to move up the DSC response thresholds for even more dynamic performance. Specially optimised in the new BMW 6 Series, this DTC mode enhances traction on slippery surfaces and ensures an even higher standard of sporting performance under dynamic driving conditions.

Safety built-in from the start: runflat tyres and tyre defect indicator.

Both the BMW 630i and the BMW 635d come as standard on 17-inch light-alloy rims. The BMW 650i, in turn, boasts 18-inch light-alloy rims as standard.

The tyres on all models feature the most advanced runflat technology enabling the driver to continue to the nearest workshop even after a complete loss of pressure. And as a further safety feature, the tyre defect indicator permanently supervises air pressure in the tyres and warns the driver as soon as tyre pressure drops more than 30 per cent below the ideal level by activating an optical signal in the instrument cluster.

Unique: Active Steering and Dynamic Drive.

Feature as standard on the BMW 6 Series, Servotronic power steering provides appropriate assistance on the hydraulic rack-and-pinion steering as a function of road speed. Further enhancement of steering comfort is provided by optionally available Active Steering absolutely unique in the BMW 6 Series segment, varying the steering transmission ratio appropriately to provide a larger steering angle at low speeds with the same movement of the steering wheel than at higher speeds. In practice, this allows the driver to manoeuvre his car with less effort and with an even smoother steering effect.

At higher speeds, on the other hand, Active Steering makes it easier for the driver to remain steadily on course, harmonising the feeling of the steering.

By way of yaw rate control, Active Steering stabilises the car in brake manoeuvres on varying surfaces (when applying the brakes with a modal split), counter-steering as required for superior safety and balance.

Yet another innovation ideally reflecting the character of the BMW 6 Series is optionally available Dynamic Drive. This suspension control system features active anti-roll bars with hydraulic swivel motors on the front and rear axle, enabling the car to almost completely set off roll movements in bends and in a sudden change of direction. A further benefit is appropriate control of the car's steering behaviour in a lane change or in hard manoeuvres serving to avoid an obstacle on the road.

Active Cruise Control with Stop & Go.

Active Cruise Control with its Stop & Go function offers the driver better support and greater assistance at the wheel than ever before.

This innovative system now available as an option in the new BMW 6 Series – on cars with automatic transmission – features automatic distance control allowing the driver to comfortably cruise along the motorway or on a country road, while constantly maintaining an appropriate distance to the vehicle ahead also in stop-and-go traffic at very low speeds.

As soon as the distance pre-set by the driver is no longer maintained, the system adjusts the speed of the car by intervening in drive management and building up brake pressure, thus taking current traffic conditions into account. Then, as soon as the road ahead is free again, Active Cruise Control increases the speed of the car to the limit set by the driver in advance. The system even reduces the speed of the car to a standstill whenever necessary on account of current traffic conditions, bringing the car to a halt and holding it in that position.

The maximum deceleration generated by Active Cruise Control with Stop & Go is 4 metres/sec². And should the driver be required to intervene because the driver ahead is applying the brakes extremely hard, he will be informed to do so by appropriate visual and acoustic signals.

New: Lane Departure Warning with vibration signal on the steering wheel.

To support driver awareness, both the new BMW 6 Series Coupé and the new BMW 6 Series Convertible come with a newly developed assistance system helping to prevent the driver from inadvertently departing from the right lane on the road. Referred to as Lane Departure Warning, this sophisticated system identifies departure of the car from the right track and gives the driver a discreet but noticeable signal at the most important point in steering the car – on the steering wheel itself.

The Lane Departure Warning System is made up of a camera fitted near the interior mirror on the windscreen, a control unit for comparing data, and a signal transmitter generating a vibration signal on the steering wheel.

New: even better visibility thanks to variable light distribution.

Innovative driver assistance systems provide the opportunity to mastermind the bi-xenon headlights of the BMW 6 Series in a particularly intelligent fashion. The optionally available Adaptive Headlights, for example, guarantee appropriate illumination of the road ahead, following the road in bends and on winding passes.

A further improvement is variable light distribution introduced for the first time on the new BMW 6 Series to optimise the headlight beam and illumination also on a straight stretch of road: Operating as a function of road speed, this innovative control system automatically enlarges the driver's field of visibility by broadening the light beam, the "footprint" of light, as it were. In a typical city light situation at speeds below 50 km/h or 31 mph, this ensures broader distribution of light making it easier to recognise objects on the opposite, oncoming side of the road. In the motorway mode, on the other hand, the driver's field of vision is extended by giving the light beam a longer range and again offering greater illumination on the left-hand side with oncoming traffic.

Activation of the foglamps at speeds of up to 70 km/h or 50 mph, in turn, generates broader light distribution and brightens up the area close to the car. And at higher speeds, finally, the headlight range is also extended over and above the broader distribution of light.

Automatic headlight control featured as standard activates the low-beam headlights without requiring any intervention by the driver whenever this is necessary – for example when driving through a tunnel or with conditions becoming darker at dusk. The rain sensor also featured as standard is an ideal supplement to the headlight control function, conducting optical measurements to automatically determine the onset and degree of precipitation, and thus activating the windscreen wipers accordingly.

The BMW 6 Series is the only car in its segment available with a High Beam Assistant. This intelligent unit switches off the high beam automatically as soon as the car encounters oncoming traffic or another vehicle ahead comes into sight or if the road ahead – for example in town or a built-up area – is adequately illuminated.

BMW Night Vision available as an option offers an even higher standard of safety when driving at night. The "heart" of this unique system is a thermal imaging camera able to detect people, animals and objects emitting heat at a distance of up to 300 metres or almost 1,000 feet also next to the road, then transmitting a high-contrast image to the central Control Display also used by the navigation system.

As an option both the BMW 6 Series Coupé and the BMW 6 Series Convertible are available with a Head-Up Display projecting information relevant to the driver such as the road speed of the car or navigation data to the windscreen directly in front of the driver.

Comfort and safety on all four seats.

High-strength load-bearing structures, generous and clearly defined deformation zones front and rear, side impact protection integrated in the doors and rear side panels, and an extremely stiff passenger cell allowing the entire structure around the driver to maintain its function as a survival area also in a severe collision – all these features provide the prerequisites for the exemplary standard of passive safety offered by the BMW 6 Series.

Other standard features are three-point belt inertia-reel seat belts on all seats as well as frontal and side airbags. The BMW 6 Series Coupé also comes with head airbags, while the BMW 6 Series Convertible features rollbars moving up automatically in the event of a possible rollover within fractions of a second from a module behind the rear headrests.

Active headrests for an even higher standard of occupant protection.

Both the BMW 6 Series Coupé and the BMW 6 Series Convertible come as standard with electrically adjustable seats for the driver and front passenger as well as a triple memory function on the driver's seat. The front seats on the BMW 6 Series Convertible feature an integrated belt system, while on the BMW 6 Series Coupé the belt anchor points allow comfortable and convenient use of the car's restraint systems.

Newly developed active headrests on the front seats once again enhance the standard of passive safety in both models, the headrests developing their protective effect in the event of a rear-end collision by automatically moving closer to the occupant's head, thus preventing any rapid spinning or turning motion of the head, in the process significantly reducing the risk of upper spinal injury for the driver and front passenger.

To ensure this effect, the headrests are moved forward by 60 millimetres or 2.36" and upward by 40 millimetres or 1.57" as soon as the airbag control unit registers an impact at the rear of the BMW 6 Series and sends out a signal for pyrotechnical activation of the system. This, in turn, releases two springs moving the upholstered sections of the headrests into position to immediately cushion the heads of the occupants, preventing any spinning or jerking movement resulting from impact energy.

Top-end navigation and audio systems.

As a particular highlight in the interest of motoring comfort, both the BMW 6 Series Coupé and the BMW 6 Series Convertible are available as an option with the BMW Professional navigation system now optimised to an even higher level. Among other features, the BMW Professional navigation system features refined graphic presentation on an 8.8-inch Control Display as well as new, particularly reliable voice entry exclusive to BMW cars.

High-quality audio systems and telematics functions serve to enhance touring comfort and driving pleasure in the new BMW 6 Series to an even higher standard. Particularly the newly developed BMW Individual High-End Audio System guarantees exceptional quality of sound ensured above all by the “heart” of the system, trendsetting Dirac Live signal processing. The digital nine-channel amplifier with DSP Digital Signal Processing develops maximum output of 825 watt and, together with the particularly sophisticated loudspeakers, sets a new benchmark in the quality and reproduction of sound.

Over and above the AUX-IN bush featured as standard, a USB interface is also available as an option for linking up external audio sources. This allows the user to integrate MP3 players such as an Apple iPod into the audio system and to control the various functions by means of the iDrive Controller or, respectively, the multifunction buttons on the steering wheel.

The range of multi-media features and options is rounded off by the mobile BMW Online internet portal and BMW Assist telematics services. The BMW Online news menu comprises not only the latest new reports provided directly by the German Press Agency (dpa), but also weather reports and forecasts tailored to the driver's personal needs.

The BMW Convertible Weather Service, for example, tells the driver whether he can expect to drive his BMW 6 Series Convertible with the roof down on the next day or whether to expect precipitation at his current location. And last but not least, the new BMW 6 Series is also available with BMW TeleServices through which the BMW Group offers its customers a universal range of service features serving for example, to make appointments and set the appropriate time for a meeting.

Leather upholstery with SunReflective Technology on the Convertible.

One of the particular highlights offered by the BMW 6 Series Convertible is the use of a newly developed type of leather for the seat upholstery and interior panels. In this case so-called “cool pigments” are integrated into the material in a process referred to as SunReflective Technology, reflecting infra-red radiation in the sunlight. This very effectively reduces any undue overheating of the seat surfaces when the car is open, providing a difference in temperatures compared with conventional leather of up to 20 °C or 68 °F in the case of dark colours.

Together with the characteristic design of both models and their impressive standard of driving dynamics, the comprehensive range of multi-faceted features helps to give the BMW 6 Series its truly authentic and unique identity. Indeed, the new BMW 6 Series Coupé and the new BMW 6 Series Convertible

belong to the small and highly exclusive group of cars fulfilling the greatest demands in every respect and setting new benchmarks everywhere. Given the sheer magnitude of their qualities, both models stand out clearly in their respective segments, reflecting the ideals of the discerning motorist dedicated either to the refined dynamics of a four-seater Gran Turismo coupé or the exclusive driving pleasure only a luxury convertible likewise conceived for four occupants is able to offer.

Through its convincing representation of the latest values including not only uncompromising quality, unpretentious elegance, superior everyday reliability and now also the superior economy of the BMW 635d, the BMW 6 Series is a highly attractive proposition also to the connoisseur outside of the car's classic target group. So the positive impression the BMW 6 Series leaves behind on the road gives the driver even greater pleasure in identifying with his car.

The outstanding success of the BMW 6 Series so far clearly proves how the car reaches the objectives set not only by BMW, but also by the most demanding customers, of a luxury performance coupé and convertible: By the end of February 2007 no less than 75,352 units of the BMW 6 Series had come off the assembly line, to be precise 41,446 Coupés and 33,906 Convertibles. So within just three years, the BMW 6 Series already accounts for more than 85 per cent of its predecessor's sales volume throughout its entire lifecycle. And now, with both models boasting an even more distinctive profile, everything is in place for continuing the great success of the BMW 6 Series.

3. The Thrilling BMW 6 Series: Character Comes from Tradition.



- **Sporting, challenging, progressive: essential BMW brand values defining the car's basic qualities.**
- **Always at the top of its generation: the large BMW Coupé.**
- **In a dimension of its own: the Luxury Convertible for dynamic motoring with four occupants in style.**

Stylish, oriented to the future, authentic: each model in the BMW 6 Series is a fascinating personality on four wheels. The BMW 6 Series Coupé continues the tradition of BMW's highly successful sports cars with exceptional refinement and culture, offering the modern interpretation of a classic Gran Turismo. The BMW 6 Series Convertible, in turn, is already acknowledged as the epitome of luxurious and, at the same time, highly dynamic driving pleasure in an open 2+2 seater.

Now introducing new editions of both models, BMW is further sharpening the individual profile of both the Coupé and Convertible, both cars now boasting a design language able to convey its messages even more clearly thanks to specific refinements to the last detail.

The range of engines combines superior dynamics with modern efficiency – not only through the addition of the most sporting and powerful 3.0-litre straight-six diesel in the world to this outstanding model range. And innovations in the areas of driver assistance and safety also underline the progressive character of the new BMW 6 Series Coupé and the new BMW 6 Series Convertible.

As on every BMW, the identity of the BMW 6 Series is clearly characterised by full harmony of design tallying with the product features borne out by the looks of the car. Both models, therefore, stand out through their superior dynamics, innovative technology, and unmarred driving pleasure. And precisely these qualities are symbolised by the sculptural design language of the both the Coupé and Convertible.

The unique, aesthetic appearance of the BMW 6 Series results from the fact that both models offer a particularly powerful and challenging interpretation of BMW's elegant design language also characterising the BMW 7 Series in its very special look.

Authentic: impressive look, fascinating driving experience.

The design of both the outside and inside is devoid of individual, “flashy” effects, but rather stands out through its harmonious all-round concept. Even the first impression will whet your appetite, looking forward to a car which offers a perfect balance of driving dynamics and motoring refinement of the highest standard. And drive technology as well as model equipment confirming this superiority likewise helps to make the BMW 6 Series a convincing offer in every respect.

A BMW 6 Series is impressive to behold – and it is equally impressive to drive. Its authenticity is the result of a development process in which the traditional values of the BMW brand played a leading role right from the start. First and foremost, this means superior dynamics resulting from the construction and production of the most powerful cars for sporting competition. Then there is the touch of sophistication borne out clearly both in the choice of materials and in the quality of finish.

Taking these qualities into account, BMW builds cars absolutely remarkable to this day – cars also looking back at decades of outstanding style and success. Cars, indeed, which have always received the utmost focus in development, using innovative materials and production technologies and boasting design to give each and every model a clear sign of its inherent quality right from the start at very first sight. Indeed, the new BMW 6 Series is the most modern, technically demanding and, in its style, the most progressive car in this long succession of outstanding driving machines.

Sports cars and icons in style throughout the history of BMW.

For decades, sporting competition and the search for the exceptional have driven the development of particularly desirable models from BMW. Now the new BMW 6 Series Coupé and the new BMW 6 Series Convertible form the current pinnacle in a long tradition of cars combining outstanding dynamics with supreme exclusivity. Legendary success in motorsport characterises this heritage in the same way as former models now acknowledged as icons in style and leaving a strong influence on automotive design to this very day.

Both the Convertible and the fixed-head Coupé continue a list of legends in the world of motoring. The BMW 327 launched in 1938, for example, was greatly admired both in Convertible and Sports Coupé guise for its supreme elegance and is acknowledged to this day as BMW’s most exclusive pre-war car. And as an alternative to the 55 hp power unit regarded back then as very muscular, both models were also available, again in the guise of the BMW 327/328, with the 80-hp sports engine taken from the legendary BMW 328 Roadster.

Using intelligent lightweight engineering to win the Mille Miglia.

One of the exclusive customers able to drive and enjoy the BMW 327/328 Coupé built only 86 times was the “Racing Baron” Fritz Huschke von Hanstein. And nobody could have confirmed the qualities of such a BMW Coupé more impressively: Together with his co-pilot Walter Bäumer, Huschke von Hanstein won the overall rating in the 1940 Mille Miglia in a one-off coupé version of the BMW 328. The winning car in what, at the time, was the toughest race in the world, featured a 136-hp six-cylinder power unit, a tubular spaceframe, and a Superleggera body made completely of aluminium. Benefiting from this body sculptured at the time by Italian body designer Touring, the Coupé weighed a mere 780 kg or 1,720 lb.

Indeed, the mission to maximise performance by minimising weight remains part of BMW’s development strategy to this very day – which is why the BMW 6 Series owes at least some of its exceptional agility to its weight-reduced aluminium front section and the front and rear axles both also made of aluminium. The doors and front lid are likewise made of aluminium, with a special SMC sheet moulding compound, a cutting-edge thermoplastic material, being used on the front side panels and the rear lid.

The discerning motorist was able to enjoy the highest standard of prestige and superior motoring comfort in the BMW 335 built not only with a saloon body, but also as a convertible. Featuring a 90-hp 3.5-litre six-cylinder, particularly the open four-seater was exactly the right car at the time for motoring in supreme style. Regrettably, however, the BMW 335 entered the market at the wrong time, production of the car launched in 1939 amounting to only 410 units, among them 158 convertibles, due to the beginning of the war.

The first German eight-cylinder after the war.

In the early 1950s German carmakers concentrated their efforts mainly on pre-war models and concepts. BMW, however, carried only its proven six-cylinder power units forward from pre-war years, while the body of the BMW 501 entering production in 1952 was an all-new design and construction soon to become known as the “Baroque Angel” on account of the sweeping flow of lines extending out of the front wheel arches far down the side of the car.

Coupé and convertible versions of the BMW 501, as well as its successor, the BMW 502, were built by various coachbuilders in very exclusive numbers. And with the introduction of the BMW 502 in 1954, these models benefited from the right kind of eight-cylinder power unit displacing 2.6 litres and developing maximum output of 95 hp. Indeed, this V8 was the first and, for a long time, the only post-war eight-cylinder built in Germany.

In 1955 BMW presented no less than two spectacular newcomers at the Frankfurt Motor Show: the BMW 503 Coupé and the BMW 507 Roadster. Both models were powered by BMW's eight-cylinder now enlarged in size to 3.2 litres and developing 140 hp in the BMW 503 and an even more impressive 150 hp in the BMW 507.

The four-seater BMW 503 was also available in convertible guise, offering features such as leather upholstery and electric window lifts as signs of sheer luxury and unusually elegant design in the early years of the German "economic miracle".

Designed for eternity: the creations of Albrecht Graf Goertz.

The draft designs for the BMW 503 and the BMW 507 came from the hand of a young German designer – Albrecht Graf Goertz. A student of the famous industrial designer Raymond Loewy, Goertz succeeded in combining long and sleek side-lines and a powerful, muscular front end with a touch of elegance and lightness previously offered only by Italian car designers. To this day, this combination is acknowledged as a wonderful example of the sporting elegance expressed by the BMW 6 Series.

The BMW 503 was also a trendsetter in technical terms: Parts of the car's body were made of aluminium, and the light-alloy V8 accelerated both the Coupé and the Convertible to a top speed of 190 km/h or 118 mph. A brake servo came as standard, and starting in 1957 the transmission was connected directly to the engine, offering the driver a centre stickshift instead of the conventional gearshift lever on the steering wheel.

The BMW 503 was the choice of the truly discerning individualist thrilled by dynamic motoring, elegance and progressive technology – and as early as in the 1950s, it had all the flair, style and qualities characterising BMW's Luxury Coupés to this very day.

The BMW 503 was replaced in 1962 by another coupé proudly bearing testimony to the Italian roots of its design – the BMW 3200 CS, an extremely attractive but at the same time remarkably spacious coupé designed by the renowned Turino coachbuilder Nuccio Bertone.

Bertone showed his particular style and handwriting above all on the elegant, almost hovering design of the car's greenhouse. The low, flowing roof-line, together with its panorama rear window, served likewise to give this two-door a touch of discreet and sporting elegance. And last but certainly not least, the BMW 3200 CS was the first BMW to feature that counter-swing in the

C-pillar introduced by BMW's Chief Designer Wilhelm Hofmeister in the "New Range" saloons launched in the same year. Now famous as the "Hofmeister kick", this particular design feature remains typical of the BMW brand to this very day.

Pure driving pleasure, pure lightness in design.

The BMW 3200 CS was the epitome of prestige and noblesse, its 160-hp light-alloy V8 power unit giving the car a top speed of 200 km/h or 124 mph. And even though production of 603 units sold up to the year 1965 remained below BMW's original expectations, the positive influence of this Luxury Performance Coupé on the image of the brand was of great significance.

Even more than the BMW 3200 CS, the next model launched in 1965 came with all the style and qualities of that typical Italian "lightness". And these strengths were combined with inner values focusing entirely on sheer driving pleasure: The new two-door was powered by a modern 2.0-litre four-cylinder developing 100 hp in the BMW 2000 C and an even more impressive 120 hp in the BMW 2000 CS thanks to its double carburettors. At the same time the new model was approximately 300 kilos or 662 lb lighter than its predecessor, making the car extremely agile. And it was a truly stylish new model offering particular luxury and driving pleasure also thanks to the automatic transmission which proved to be so popular among customers everywhere.

BMW's Chief Designer Wilhelm Hofmeister had carefully honed and perfected the discreet elegance of the Coupé's design, adding a number of striking styling features. The filigree form of the roof with its slender A- and C-pillars, together with the "Hofmeister kick", and the unmistakable front end with its trapezoidal headlights and the extra-slender BMW double kidney radiator grille gave both the BMW 2000 C and the BMW 2000 CS truly unique character.

At the end of the day this re-orientation certainly showed the desired effect, with BMW selling more than 7,000 units in the first year alone.

Increasing the focus on sports: BMW Coupés in the 1970s.

Through its elegant flair alone, the BMW 2000 CS quickly gained growing popularity in the market, but in the course of time more and more customers asked for more power. And the car that fulfilled this wish in 1968 was the BMW 2800 CS, its 2.8-litre 170-hp six-cylinder marking only the beginning. For it was followed up to 1973 by the BMW 3.0 CS, the BMW 3.0 CSi and the BMW 3.0 CSL featuring six-cylinder power units developing 180 and, respectively, 200 hp from 3.0 litres, with an even more impressive 206 hp offered by the most powerful 3.2-litre version. These models were originally conceived for motorsport where they were destined to play a dominating role until far into the 1970s.

The extra power of these new models was visibly displayed also through the exterior styling, a longer engine compartment lid giving the Coupé a more dynamic line and ensuring truly perfect proportions from every angle. Round dual headlights, in turn, created a sporting look, while the interior exuded the flair of luxury performance in every respect on account of a wide range of innovations in technology and top-class materials, not to mention air conditioning, electric window lifts, and leather upholstery.

No other car at the time was able to offer a comparable standard of sporting performance borne out by sheer speed and power and confirmed time and again by outstanding success on the race track – with all this being offered in a unique body full of elegance and luxury.

Providing these qualities, BMW's large coupés had found their characteristic style, sales of more than 44,000 units up to the year 1975 also making them a success in business. Their long story of victory on the race track continued even longer, adding up, inter alia, to no less than six European Touring Car Championships between 1973 and 1979.

Dynamism and elegance clearly expressed by the number “6”.

In 1976 the number “6” for the first time became an unparalleled symbol of dynamism combined with stylish elegance, when BMW presented its new Luxury Performance Coupé at the Geneva Motor Show. Created by BMW's French Chief Designer Paul Bracq, the BMW 6 Series introduced in the guise of the BMW 630 CS and the BMW 633 CSi offered extra length and width and, as a result, even more space and comfort within the interior. The roof once again boasted that elegant lightness, and the front section forming a sleek arrow showed challenging, sporting style right from the start.

Within the engine compartment a 3.0- and, respectively, 3.2-litre straight-six offered a more than ample 185 and, respectively, 200 hp maximum output. And starting in 1978 a 3.5-litre power unit derived directly from motorsport churned out an even more impressive 218 hp in the BMW 635 CSi.

The BMW 6 Series was a truly outstanding car not only on account of its excellent driving dynamics, but also with its ultra-modern technology, its supreme comfort and safety. Indeed, this quickly made it the innovation spearhead of the BMW brand, underlining its supreme popularity among connoisseurs of exclusive, sporting and elegant two-door models everywhere. Production up to the year 1989 amounted to no less than 86,216 Coupés.

The BMW 8 Series marked yet another technological milestone in the development of the sporting Luxury Performance Coupé in the 1990s. With its highly aerodynamic body design featuring pop-up headlights, with unparalleled style and luxury and truly outstanding performance, the BMW 8 Series initially entering the market as the BMW 850i and then offered as the BMW 850CSi, BMW 850Ci, and BMW 840Ci, was a truly exceptional car in every respect. Featuring both eight- and twelve-cylinder power units with output of up to 380 hp, this successful Coupé was built in a production run of more than 31,000 units.

Patience always pays off: the second BMW 6 Series, now also as a Convertible.

Ever since the late '50s and the BMW 503 Convertible, BMW had concentrated in the development of open four-seaters on smaller car segments. But the one-off demonstration model of an open-air BMW 3200 CS to be admired today in the BMW museum clearly shows that the creativity of BMW's designers and development engineers would also have paved the way for other open-air models. On account of market conditions, however, BMW decided to pursue another strategy.

The renaissance of the large BMW Convertible in 2004 then came as an even more impressive surprise, a Convertible version of the second BMW 6 Series entering the market only a few months after the Coupé. Both models once again brought to life the outstanding thrill of a sporting open-air luxury performance car based on a long tradition of excellence.

Within just three years the BMW 6 Series gained a firm position in the topmost segment of the market as an incomparably desirable driving machine for the individualist seeking to express his – or her – sense of dynamism, exclusivity, and innovative technology through the car of his choice.

By February 2007 no less than 75,352 units of the BMW 6 Series came off the production line, to be precise 41,446 Coupés and 33,906 Convertibles. As a result, the current BMW 6 Series accounted for more than 85 per cent of its predecessor's total sales volume in just the first half of its lifecycle, immediately moving up to second place in the highly prestigious segment of luxurious sports cars.

The new BMW 6 Series adds final perfection to the prize-winning design of the Coupé and Convertible, adding specific highlights at exactly the right points. Innovations in drivetrain technology and in the driver assistance and safety systems also serve to sharpen the profile of an exceptionally progressive car literally pampering its owner through motoring refinement of the highest standard.

The BMW 6 Series thus fulfils all the expectations of the discerning individualist with a clear definition of supreme demands. And in the process the BMW 6 Series Coupé offers a particularly stylish option for enjoying driving dynamics at its best, while the BMW 6 Series Convertible bears out the joy of driving pleasure in the open air with both sporting performance and elegant design. In both cases, of course, the driver is able to share this exceptional driving experience with up to three occupants.

Apart from the four seats and the high level of comfort, the spacious luggage compartment offered both by the Convertible (300 litres/10.5 cu ft with the roof open, 350 litres/12.3 cu ft with the roof closed) and, even more, by the Coupé (450 litres/15.8 cu ft) ensures not only all the amenities required for grand touring, but also all the pleasures of everyday motoring.

In a nutshell, therefore, the 6 BMW Series Coupé and the BMW 6 Series Convertible offer truly exceptional driving pleasure and, at the same time, the option to really enjoy this pleasure day in and day out.

Offering a standard of credibility quite unique in its segment, the BMW 6 Series represents the most up-to-date values in our modern day and age, among them uncompromising quality, unpretentious and dynamic elegance, supreme everyday driving abilities, and now also the superior economy of the BMW 635d.

With characteristics of this kind and calibre, the BMW 6 Series is widely acknowledged and lauded also outside its classical target group. Indeed, it is one of the few cars able to generate a fundamentally positive impression on the road, notwithstanding its supreme exclusivity. And since this positive impression enhances the joy of motoring to an even higher level, giving the driver the opportunity to really identify with his car, the BMW 6 Series is highly popular among motorists who use their car also as a means of professional transport. Or, to put it in different words, wherever you wish to go, the BMW 6 Series will take you there in grand style and with supreme performance in every respect.

4. Design: Dynamics in Stylish Perfection.



- **Prize-winning design reflecting the dynamism, elegance and progressiveness of the BMW 6 Series.**
- **Accentuations at the front, rear and the sides underlining the sporting character of both the Coupé and Convertible.**
- **Discreet refinements and fresh colours within the interior.**

The body of the BMW 6 Series is characterised by one feature in particular: supreme sculptural design of the highest standard. In other words, both the Coupé and the Convertible are perfectly rounded off in their exterior look and appearance. This is ensured by unique design language giving both the car's lines and surfaces carefully defined meaning and significance.

The uninterrupted flow of all characteristic lines on the BMW 6 Series, for example, generates a sleek, ongoing connection of the front, side and rear, all body elements coming together to form one harmonious balance. Generous, powerfully curved surfaces likewise convey a clear and smooth picture, precise and dynamic design symbolising sporting elegance of a particularly dynamic form from every angle and perspective. So the overall design of the car clearly and consistently reflects precisely those qualities which make the character of the BMW 6 Series so unique: supreme power and elegant luxury.

Creating the BMW 6 Series, BMW's designers have entered new terrain, the authentic style of this two-door driving machine nevertheless providing its own distinctive effect. As in the past, the discerning motorist looking for a modern interpretation of classic Gran Turismo style combined with superior innovations in technology will find the fulfilment of his demands in the BMW 6 Series.

Through its aesthetic style and appearance, therefore, the BMW 6 Series Convertible has become the epitome of sporting and elegant motoring culture in the open air. And apart from outstanding success in the market, the clear judgment of the most renowned design experts has definitely confirmed BMW's approach to unusual design and styling. As the final pinnacle within a whole series of awards and titles, the BMW 6 Series even won the Design Prize of the Federal Republic of Germany in the year 2006.

Now the new edition of the BMW 6 Series takes up this successful concept, aiming at an even higher level of perfection. In this process the design language of both the body and interior remains untouched in its beauty and appeal. Specific accentuation of various details nevertheless shows clearly that the designers sought to give the visual message of the car even greater clarity, appropriate refinement further underlining the sculptural character of the car's design.

Particular emphasis is given above all to the sporting characteristics of both the Coupé and Convertible, modifications at the front, side and rear making the new BMW 6 Series an even more powerful and convincing performer on the road.

Seen from the front: powerful and wide, with a clear focus on the road.

The sporting and dynamic character of the BMW 6 Series comes out particularly at the front of the car. Above all, it is the striking lines extending from the A-pillars along the entire engine compartment lid to the BMW kidney grille and forming a dynamic arrow in the process also influencing the contours of the headlight units that characterise the BMW 6 Series in its dynamic look. Now the V-angle formed by the lines around the headlights is reflected even more distinctly by the bars in the lower air intake scoop – on the new BMW 6 Series these bars are chiselled even more clearly than before, forming yet another parallel to the powerful contours on the engine compartment lid.

The air intake itself is wider than on the former model and borders at the bottom on a light edge extending across the entire width of the car. This powerfully accentuates both the foglamps moved further to the outside and the wide track of the BMW 6 Series.

Chrome elements on the two kidney units interacting with the direction indicator lights in the upper segment of the headlight units now positioned on the same level and modified in their design add yet a further elegant highlight from the front of the car.

The direction indicator lights now feature crystalline-looking LED units to generate their flashing signal, giving the headlights at the front end of the BMW 6 Series a clear focus through their striking contours, with the new lights technology adding further brilliance and clarity.

Yet a further point is that the dark trim strip offers a highly attractive contrast to the chrome-plated headlight surrounds. Featured as standard, the bi-xenon dual round headlights now stand out even more distinctly beneath a clear glass cover and can be admired also from the side, their corona rings offering BMW's specific rendition of a daytime headlight function.

Stretched silhouette, powerfully chiselled side-sills.

With its long wheelbase and long engine compartment lid, the greenhouse moved far to the back, and the low-slung roof-line tapering gently to the rear, the BMW 6 Series boasts all the proportions of a classic coupé. And thanks to the unique concept of its Finn roof, the BMW 6 Series Convertible likewise offers the same dynamic and sleek silhouette.

Generous surfaces everywhere symbolise power and solidity, both the Coupé and the Convertible standing out from the side through their sculptural shape and design. And even with the roof open on the Convertible, the overall impression of harmony is maintained by the front, rear and side-lines flowing smoothly into one another.

The light edge on the side-sill of the new BMW 6 Series is more distinctive and contoured than before, clearly demonstrating the extra volume of the side-sills and, accordingly, the sporting performance of the car.

Seen from the side, the light edges on the side-sills, the front and rear air dams running parallel to the road stand out even more clearly than before, emphasising the low-slung dimensions of the car's silhouette. And together with the waist and shoulder lines running parallel to one another, the striking sill-lines again accentuate the dynamic and stretched look so characteristic of the BMW 6 Series.

Harmonious lines and clear structures also at the rear.

In modifying the rear end, BMW's designers again focused on the concept of ongoing lines extending harmoniously around the entire car. In addition, a new luggage compartment lid highlights the sporting flair of the new 6 Series by giving even greater emphasis to the rear spoiler, which is why the surface beneath the spoiler lip comes with an even more concave structure. In other words, it is no longer as steep as before, not only giving the car a more dynamic overall look, but also creating more distinctive light and shade contrasts and making the entire rear end look even lower.

The third brake light is now integrated in the spoiler lip on both the Coupé and the Convertible, the covers on the rear lights serving to optimise the car's aerodynamics by improving the flow of air along the side through their surface structure.

All light sources at the rear are made up of LED units in a newly aligned structure behind clear glass emphasising the sophisticated technical character of the lights on the new BMW 6 Series.

Like the front of the car, the rear end of the BMW 6 Series is characterised by lines encompassing the entire body and extending to the back in a dynamic V-shaped arrow.

The rear section is additionally dominated by horizontal lines and light edges emphasising the wide track of the car, particular harmony being created on the new BMW 6 Series by the lines of the luggage compartment lid, the rear lid and reflectors. The line formed by the lower edge of the rear spoiler sweeps softly and gently down to the outside, where it is taken up by the outer contours of the rear light clusters, which themselves continue in a downward motion then sweeping to the inside, where the line of the rear lights is taken up again by the reflectors.

The lower contours of the reflectors extending to the middle of the car and further stretched out add further emphasis to the wide track of the car.

The cover on top of the towing hook is integrated discreetly in the cap on the reflector, while the two tailpipes on the exhaust system are now arranged in the middle beneath the reflectors themselves.

The harmonious lines of the car also at the rear are rounded off by the numberplate panel likewise arrowed to the bottom of the car and thus continuing the lines formed by the joints between the luggage compartment cover and rear light clusters. As a result, the entire rear view of the car is aligned even more to the road, enhancing the dynamic impression also from behind.

Three new sets of light-alloy rims offer additional options to round off the sporting elegance of the new BMW 6 Series, again catering for the customer's personal preferences: Over and above the standard 17-inch light-alloy rims featured on the BMW 630i and the BMW 635d, as well as the 18-inch light-alloy rims on the BMW 650i, there is now a choice of no less than six different rim variants measuring 18 and 19 inches.

The range extends from wheels in discreet radial-spoke design through the ellipsoid styling so characteristic of the BMW 6 Series all the way to particularly sporting and dynamic star-spoke rims. And the wide range of non-metallic and metallic paintwork colours is now supplemented by two new colour options, Deep Sea Blue and Space Grey.

Classic roof, classic line: the BMW 6 Series Convertible.

One of the particular challenges in designing a convertible is to give the car a truly characteristic look borne out with the roof both open and closed. And a further challenge on the BMW 6 Series was to convey the sleek, stretched and dynamic look of the Coupé particularly from the side to the open-air Convertible.

With the silhouette of the Coupé being characterised largely by the roof-line tapering out gently into the rear end of the car, the soft top of the Convertible boasts a similarly dynamic contour line ensured by the unique Finn look of the soft roof.

Yet a further point is that the wide C-pillar presents a design highlight typical of the BMW brand, the “Hofmeister kick”, that gentle counter-swing at the bottom of the rear side window surrounds also to be admired on the rear side windows of the Coupé.

The dimensions of the Convertible alone prove clearly how similar the exterior design of the car is to that of the Coupé: Measuring 4.82 metres (189.8”) in length, 1.86 metres (73.2”) in width, and 1.37 metres (53.9”) in height, the Convertible boasts exactly the same dimensions as the Coupé.

The roof of the BMW 6 Series Convertible is made up of three layers, with a sound- and heat-absorbing layer of polyurethane foam (PUR) between the rubberised outer layer and the inner lining. And although the roof covers a large and extremely generous passenger compartment, it folds up into a compact package when opened, the vertical, upright rear window requiring virtually no stowage space by simply moving up and down electrically, regardless of whether the roof itself is open or closed. Another big advantage of this concept is the ample supply of fresh air.

A further point is that when driving with the roof down and with four occupants in the car the rear window moved up will reduce air swirl and draughts at the rear. Indeed, the vertical, upright roof also offers functional benefits in winter, with virtually no snow and ice being able to form on the window – especially as it is electrically heated.

The roof opens and closes electrically either by remote control or via a button in the instrument panel, and may be moved up and down also while driving at a speed of up to 30 km/h or 20 mph. Both processes – opening and closing the roof – take less than 25 seconds.

BMW 6 Series all the way: harmony of exterior and interior design.

Dynamism presented in style and elegance characterises not only the exterior design of the BMW 6 Series, but also the interior with that special design language that gives both the Coupé and Convertible their particular harmony. Accordingly, the exterior design of the car and the interior ambience come together to form one entity again perfectly reflecting the character of these two exceptional cars.

The philosophy of dynamic harmony in designing the interior has helped to create clear, flowing lines and dynamic, tense surfaces. Precisely this is why the sweeping inner panels of the car starting beneath the windscreen flow back on both sides in a dynamic curve leading into the door panels and surrounding the armrests. The driver and front passenger are both cocooned by this tense and highly appealing design, enjoying the sophisticated and elegant style of the interior also through appropriate looks and visual impressions.

The equally exciting contours of the centre console likewise create an impression of dynamism, the lines of the centre console originating in the dashboard, then extending diagonally around the armrest, and finally flowing all the way back to the rear seats. In a nutshell, therefore, the harmonious flair and impression of the interior results from the mutual interaction and support of surfaces and lines clearly related to one another.

Refinements in the quality of materials for even greater exclusivity.

Appropriate refinements in the quality of materials on specific controls and instruments as well as new colours for the interior trim and upholstery ensure an even higher standard of exclusivity within the new BMW 6 Series. Over and above the standard trim variant, optional interior trim featuring a fine longitudinal grain highlights the sophisticated style and flair of the interior even more than usual, offering either a more stylish and elegant or a more technical and progressive touch, whatever the customer prefers.

Optional, exclusive Pearl leather covering the armrests, the grab handles on the doors and the centre console is now also available in Chateau Red as well as a new Saddle Brown upholstery colour added to the range.

The use of a new material for the entertainment and air conditioning controls as well as the iDrive Controller likewise serves to visually refresh the interior of the car. Surfaces offering very good grip and a pleasant touch as well as BMW's new Chrome Pearl Grey Design make the rotary knobs even more superior in their function and high-quality look.

This new, stylishly galvanised metal surface is also to be admired on the door openers, the gear selector lever cover, the surrounds on the fresh air vents, the bracket on the steering wheel, the trim bar on the ashtray, on the cupholders and the push button for the glove compartment.

In its design and styling, the iDrive Controller takes up the look of the new rotary knobs through the combination of leather and Chrome Pearl Grey, again enhancing the overall harmonious impression of the car. Yet a further point is that the hard ring of rubber around the Controller now facilitates precise control of the system to an even higher standard.

To ensure even better intuitive use of the iDrive Controller in the new BMW 6 Series, the system now comes with eight programmable favourite buttons. These buttons positioned in the centre console beneath the CD player enable the driver to individually save his personal settings and preferences, allowing rapid access to functions frequently used while driving. Pressing one single button, for example, the driver is able to call up a specific destination, his favourite radio station, or a telephone number he often requires.

Use of these favourite buttons is very simple: All the user has to do to save a specific function is press down the button somewhat longer, and then all he has to do to retrieve the function is press the same button only briefly.

Yet a further point is that the buttons are touch-sensitive, with the driver merely having to touch a button to see immediately in a pre-view what setting has been saved in the button before actually retrieving the function involved.

5. Drivetrain: Superior Power, new Versatility.



- **Top engine: eight-cylinder developing 270 kW/367 hp.**
- **Premiere: straight-six with High Precision Injection.**
- **First diesel in the segment: Variable Twin Turbo, 210 kW/286 hp.**

Right from the start, the broad range of engines for the BMW 6 Series has left hardly anything to be desired. And now perhaps the last desire is being fulfilled, both the Coupé and Convertible coming for the first time with diesel power. So the enthusiast who really appreciates the qualities of this engine concept is now able to opt for the most powerful straight-six diesel in the world in both the BMW 635d Coupé and the new BMW 635d Convertible, a 3.0-litre featuring Variable Twin Turbo technology and developing maximum output of 210 kW/286 hp.

This outstanding power is exceeded only by the 270 kW/367 hp eight-cylinder displacing 4.8 litres, the top-of-the-range power unit also in the new BMW 6 Series.

Yet another innovation in the engine range is the 3.0-litre straight-six High Precision Injection gasoline engine operating with direct fuel injection also in the lean-burn mode. Developing 200 kW/272 hp, this new, upgraded power unit outperforms its predecessor by a significant 10 kW or 14 hp.

Despite this increase in power and performance, both the new BMW 630i Coupé and the new BMW 630i Convertible offer a decrease in average fuel consumption of up to 15 per cent. And it almost goes without saying that the new BMW 635d ensures an even higher standard of all-round economy quite unprecedented in this segment: Despite the superior performance also offered by this model variant, average fuel consumption of the new BMW 635d Coupé in the EU test cycle is just 6.9 litres, equal to 40.9 mpg imp (BMW 635d Convertible: 7.2 litres or 39.2 mpg imp).

BMW's principle of EfficientDynamics is also clearly borne out by the new BMW 650i, where the introduction of numerous improvements for extra efficiency serves to reduce average fuel consumption in both the Coupé and Convertible by up to 5 per cent versus the former models.

In conjunction with the new six-speed automatic sports transmission, the gasoline engine versions offer the same or even lower fuel consumption in the EU test cycle than their respective counterparts with a manual gearbox.

Powerful, superior and even more efficient: the eight-cylinder.

The eight-cylinder power unit ranking right at the top of the BMW 6 Series fulfils the greatest demands in terms of motoring refinement and culture – also because a V8 ensures superior prestige right from the start.

The drive unit in the BMW 650i Coupé and the BMW 650i Convertible justifies this supreme position through the most demanding technology and truly impressive performance data: This ultra-modern aluminium engine features throttle-free VALVETRONIC valve management, variable double-VANOS camshaft control on both the intake and outlet side, as well as an intake system switching to two different stages. And thanks to these highlights in technology, the newly tuned engine management and a wide range of improvements serving to minimise fuel consumption, the eight-cylinder offers not only supreme running smoothness, direct response to the accelerator pedal and a truly muscular torque curve, but also low exhaust emissions.

The 4.8-litre power unit develops maximum output of 270 kW/367 hp and peak torque of 490 Newton-metres/361 lb-ft. The result is a level of performance which raises both the Coupé and Convertible to the same standard as a thoroughbred sports car, the BMW 650i Coupé accelerating to 100 km/h in 5.1 the BMW 650i Convertible in 5.5 seconds. The top speed of both models, in turn, is limited electronically to 250 km/h or 155 mph.

Over and above this dynamic performance, the eight-cylinder also offers unprecedented economy for an engine of this calibre: Average fuel consumption in the EU test cycle is 11.7 litres/100 kilometres on the Coupé and 12.6 litres/100 kilometres on the Convertible, equal to 24.1 and, respectively, 22.4 mpg imp. And in addition, the greater efficiency appropriate in this day and age has also been considered in developing the new automatic transmission for the BMW 6 Series, with the BMW 650i Coupé featuring the new six-speed automatic transmission consuming just 10.5 litres, the BMW 650i Convertible, again with the new transmission, requiring only 10.9 litres, equal to 26.9 and 25.9 mpg imp.

Fascinating progress: straight-six power unit with High Precision Injection in the lean-burn mode.

The dynamic and, at the same time, highly progressive character of the new BMW 6 Series is clearly expressed by the fact that all the power units represent the latest state of the art in BMW engine development. Hence, even the “basic” engine in the range is up-to-date in every respect, the 3.0-litre straight-six in the new BMW 630i Coupé and the new BMW 630i Convertible featuring direct fuel injection in the lean-burn mode for a particularly thrilling interpretation of BMW EfficientDynamics. Indeed, this new power unit gives both models even better performance and offers even greater economy than the former engine.

The second generation of direct gasoline injection referred to by BMW as High Precision Injection uses piezo-injectors for a particularly precise injection process allowing fuel-saving lean-burn operation of the engine throughout a particularly wide range of engine speeds and running conditions. Positioned between the valves, these innovative injectors inject the fuel in the immediate vicinity of the spark plug. This specific configuration made possible by BMW's engine development specialists despite the very confined space available provides the prerequisite for the new, jet-guided combustion process avoiding the loss of fuel (spray and scatter effect) otherwise encountered when spraying the fuel on to the walls of the cylinder.

Thanks to this technology, High Precision Injection ensures significant advantages in fuel economy also under everyday driving conditions, while at the same time retaining all the qualities typical of a BMW straight-six – dynamic power and performance, fast and free engine revving behaviour, and exemplary smoothness and refinement.

Second-generation direct fuel injection: efficiency through precision.

The new piezo-injectors deliver fuel into the cylinders at a pressure of up to 200 bar, thus providing a particularly fine fuel/air mixture. The specific amount injected is tailored precisely to the power and performance required by the driver in each case, including the optimised pre- and after-injection phase. Applying this innovation, BMW's engineers not only enhance the efficiency of the engine, but also improve its response and behaviour in general.

Direct injection in the lean-burn mode gives the new six-cylinder power unit of the BMW 630i truly outstanding, all-round economy. Referred to also as the stratified charge principle, lean-burn injection enables the engine to develop superior power on a small amount of fuel, with various layers (strata) of the fuel/air mixture forming in the combustion chamber when driving in the lean-burn mode. A fuel/air layer sufficiently rich and thus easily ignitable is formed only in the immediate vicinity of the spark plug. Then, once this richer layer starts to burn, the leaner layers further away from the spark plug take up the flame and also start to burn.

This innovative technology reduces fuel consumption in the EU test cycle by approximately 10 per cent versus the previous engine with fully variable valve drive, which as such was already very efficient. And contrary to first-generation direct gasoline injection which BMW never used due to its inherent drawbacks, High Precision Injection allows fuel-efficient lean-burn operation throughout a wide range of engine loads, also at higher engine speeds.

In the new BMW 630i Coupé and the BMW 630i Convertible the 3.0-litre straight-six petrol engine develops a sporting 200 kW/272 hp, that is 10 kW/14 hp more than the former engine with conventional fuel/air mixture formation. Maximum torque, in turn, is 320 Newton-metres or 236 lb-ft.

With this kind of power, the Coupé takes just 6.2 seconds to accelerate to 100 km/h, and the BMW 630i Convertible is almost as fast, completing the same exercise in 6.7 seconds. Top speed on both cars is limited electronically to 250 km/h or 155 mph.

Fuel consumption of the BMW 630i in the EU test cycle is 7.9 litres/100 kilometres on the Coupé and, respectively, 8.3 litres/100 kilometres for the Convertible (equal to 35.8 and, respectively, 34.0 mpg imp), that is up to 15 per cent below the fuel consumption of the former models.

A unique combination: straight-six diesel in the BMW 6 Series.

A truly unusual engine for two truly unusual cars: The enlargement of the engine range for the BMW 6 Series offers a unique combination, with diesel drive making its first appearance in this car segment. And indeed, this is a diesel which truly matches the character of both the Coupé and the Convertible, with BMW's straight-six diesel featuring Variable Twin Turbo (VTT) technology bearing out the principle of EfficientDynamics at the highest level.

This is the world's most powerful and sporting series engine of its kind, combining an outstanding dynamic driving potential with the right kind of economy for our current day and age. And given the smoothness and refinement typical of a BMW straight-six, this engine also offers a further forte greatly lauded and appreciated particularly in this segment of the market.

This unusual power unit clearly underlines BMW's outstanding competence also in the development of the diesel engine, boasting technical features just as fascinating as the engine's power and performance: With its all-aluminium crankcase, VTT turbocharger and the latest generation of common rail fuel injection, the engine develops maximum output of 210 kW/286 hp and peak torque of 580 Newton-metres/427 lb-ft.

Showing a DIN weight on the scale of 194 kg or 428 lb, this high-performance diesel is approximately 50 kg or 110 lb lighter than a comparably powerful eight-cylinder – ideal conditions, indeed, to give both the Coupé and the Convertible that supreme agility so typical of an outstanding BMW.

Optimised turbocharger technology, exemplary pulling force.

The six-cylinder diesel featured in the BMW 6 Series is an ongoing development of the power unit which, ever since making its debut in the BMW 535d, has been acknowledged worldwide as the benchmark for the modern, high-performance diesel. And indeed, the innovations now being introduced are not limited to the aluminium crankcase alone, since the further enhancement of efficiency offered by the new power unit is attributable above all to the optimisation of Variable Twin Turbo technology.

In the VTT charge process, the first step when the engine is still running at low speeds is the activation of a small turbocharger to provide additional boost from the ground up. Benefiting from its low level of inertia, this small turbocharger develops its boost effect spontaneously and without the slightest delay immediately when the driver barely touches the gas pedal.

Then, with engine speed increasing, the second, larger turbocharger also cuts in, ensuring that the engine reaches its maximum torque of 580 Newton-metres or 427 lb-ft at just 1,750 rpm. The interaction of the two turbochargers, finally, is masterminded by the particularly efficient, high-performance electronic engine management system.

Given this kind of power, the diesel versions of the BMW 6 Series clearly meet the great demands made particularly in this segment. Even more so, the unique pulling force and torque of this high-performance diesel adds another, very thrilling aspect to the dynamic character of the BMW 6 Series, with the BMW 635d Coupé accelerating to 100 km/h in 6.3 seconds, the BMW 635d Convertible in 6.6 seconds. Top speed, in turn, is limited electronically to 250 km/h or 155 mph.

Another truly impressive feature quite unprecedented in a car of this kind is the efficiency that comes with this performance: the BMW 635d Coupé makes do with a mere 6.9 litres/100 kilometres, the BMW 635d Convertible with 7.2 litres/100 kilometres in the EU test cycle, equal to 40.9 and, respectively, 39.2 mpg imp, meaning that both models set new standards in their segment also in this respect.

This very up-to-date economy most appropriate in this day and age has a significant influence on the grand touring comfort both cars are able to offer, with a substantial reduction in the number of refuelling stops on long distances. In practice, this means that the new BMW 635d Coupé has a range of up to 1,015 kilometres or 629 miles, the new BMW 635d Convertible up to 970 kilometres or 601 miles.

A further example of BMW's competence in diesel engine technology is the exceptional smoothness and refinement quite unusual for a diesel, but quite normal for BMW in the 3.0-litre VTT power unit. Yet a further point is that the sound typical of a diesel engine has been further dampened and reduced on the BMW 635d Coupé and the BMW 635d Convertible by means of specific acoustic improvements.

Again, all this means that the "normal" driver will hardly even notice any difference between these models and their gasoline counterparts, neither will the driver experiencing these cars only occasionally, for example as a rental car.

Precisely this is why the BMW 635d Coupé and the new BMW 635d Convertible are equipped with a false tanking safeguard ensuring that the driver always uses the diesel pump at the filling station.

To optimise emission behaviour, BMW's new high-performance diesel comes with a particulates filter of the latest generation as well as an oxidation catalyst both of which are housed in the same box. The exhaust treatment unit is positioned directly on the engine, thus reaching its operating temperature immediately after the engine has started and providing its full effect at a particularly early point in time. The particulates filter is maintenance-free and regenerates itself by burning the diesel particles. This ensures full function of the filter at all speeds and under all loads, without any influence on engine output and fuel consumption.

Efficient: Brake Energy Regeneration and gearshift point indicator.

Featuring a wide range of efficiency improvements on and around the engine, not only the BMW 635d, but also the gasoline engine versions of the new BMW 6 Series provide a particularly good balance of performance and economy. Brake Energy Regeneration on all engine variants, for example, ensures intelligent management of the energy flow, concentrating the generation of electricity for the car's on-board network on the overrun and brake phases. This means that the car's battery is charged consistently without using engine power and, accordingly, the energy contained in the fuel. As long as the engine is pulling the car, on the other hand, the alternator generally remains disconnected. Apart from particularly efficient generation of electricity, this also provides more power for enhanced driving dynamics when accelerating.

To promote an economic style of motoring, the manual gearbox versions of the new BMW 6 Series come with a gearshift point indicator. As a function of driving conditions, the electronic engine control calculates the optimum

point for shifting up in the interest of minimum fuel consumption, an arrow symbol in the instrument cluster showing the optimum gear and telling the driver the ideal point for shifting gears.

Mechanical disengagement of the car's ancillaries to save energy.

Further technologies serving to save fuel develop their superior effect without any intervention by the driver. The belt driving the a/c compressor, for example, comes with its own clutch automatically disengaging the compressor as soon as the air conditioning is switched off, thus reducing the drag force exerted by the compressor to a minimum.

The electric coolant pump, in turn, adjusts the thermal management of the six-cylinder in the BMW 630i and, accordingly, its cooling efficiency to current requirements regardless of engine speed. While a conventional pump consumes up to 2 kW power in this process, the new, intelligent pump concept reduces the power uptake through on-demand control to just 200 watt. Again, the result is a significant reduction of fuel consumption, also because the engine reaches its normal operating temperature more quickly.

The Varioserv steering assistance pump featured in all models in the new BMW 6 Series reduces the loss in drive power normally suffered as a function of higher engine speeds through pressure- and volume-flow-related adjustment of the curve ring. A further point in this context is that the power steering in both models uses a hydraulic fluid with lower viscosity reducing friction within the steering system.

A special light-flow transmission fluid in the BMW 650i, to mention yet another improvement, also helps to reduce frictional losses. And optimised thermal management of the final drive in all models in the new BMW 6 Series likewise helps to reduce frictional resistance more quickly after starting the engine.

The reduction of air drag and resistance ensures yet a further reduction in fuel consumption on the BMW 6 Series: Cooling air flaps opening or closing as a function of driving conditions serve not only to reduce noise but also and above all to optimise streamlining both on the BMW 635d Coupé and the BMW 635d Convertible.

New automatic sports transmission: even more dynamic, even more comfortable.

The new BMW 630i and the new BMW 650i both come as standard with a six-speed manual gearbox conveying the power of the engine to the drive wheels. An option on both models is the newly developed six-speed automatic sports transmission standard on both the Coupé and Convertible

variants of the new BMW 635d. This cutting-edge transmission not only meets the greatest demands in terms of driving comfort, but also ensures dynamic conversion of engine power into driving pleasure.

On this new automatic sports transmission, the hydraulic system developed to an even higher standard, an innovative torque converter, and far more powerful software ensure not only an even more spontaneous response to the gas pedal, but also an extremely fast gearshift at all times.

Shifting down more than one gear is now just as quick as shifting down in the conventional process thanks to direct detection of the gear desired. So should the driver kick down the gas pedal, seeking to enjoy supreme performance, the automatic sports transmission will shift back immediately by up to four gears. In practice, this means that the car now takes less than one second to make the radical change from comfortable cruising to dynamic sports motoring. The clear impression for the driver is that the new six-speed automatic transmission is not only an improvement of performance, but also intuitive in its reaction, at the same time offering a very sporting driving experience at all times.

The dynamic characteristics offered by the new automatic transmission are attributable above all to the direct connection between the transmission itself and the engine. This, in turn, is made possible by new torque converter technology with an integrated torsional damper avoiding any unnecessary slip and, accordingly, loss of power. With the converter lock-up clutch being closed immediately after setting off, the driver gets the same feeling and impression as if he were at the wheel of a manual gearbox car. And last but not least, the new automatic sports transmission also serves to make the new BMW 6 Series even more economical.

Electronic gear selector lever and shift paddles on the steering wheel.

The driver controls the automatic sports transmission by means of an electronic gear selector lever with the layout of gears in the usual configuration. After use, the new gearshift lever returns to its starting position, the transmission itself being controlled by electrical signals, and not mechanically.

The new gear selector lever provides short and ergonomically pleasant gearshift travel, with the driver shifting to the parking position either by pressing the P button on the gear selector lever or automatically when switching on the engine.

To activate the manual selection of gears, all the driver has to do is briefly move over the gear selector lever from position D to the left, then shifting gears sequentially by hand either with the gear selector lever or with gearshift paddles on the steering wheel. A display in the lever and on the instrument cluster tells the driver at all times which gear is currently in mesh.

The driver's other option is to shift gears in the manual mode by means of paddles on the steering wheel, thus switching over to a manual gearshift whenever he wishes, without even having to take one of his hands off the steering wheel. Instead, pressing either of the two paddles serves to shift down, pulling either of the paddles to shift up.

Pressing the Sports button behind the gear selector lever, the driver is able to enjoy an even faster and more dynamic gearshift, with the transmission following his commands even more spontaneously. A further change made in the process involves the control map for the Servotronic power steering featured as standard, again providing optimum conditions for dynamic acceleration.

Apart from the unusually fast gearshift, the driver receives clear feedback in this case every time the system shifts a gear. The spontaneous movement of the indicator needle in the rev counter to be observed in this case is yet further evidence of the car's particularly fast and temperamental acceleration and performance.



6. Chassis and Suspension, Driver Assistance Systems, Safety: Innovations to Make Motoring a Genuine Experience.

- **All-aluminium chassis, Active Steering, Dynamic Drive.**
- **Greater safety and comfort ensured by Lane Departure Warning and Active Cruise Control with Stop & Go.**
- **Optimised occupant safety with active headrests.**

Both the new Coupé and the new Convertible in the BMW 6 Series combine fascinating sportiness and superior driving behaviour at all times. High-performance power units, the transmission of power to the rear wheels, well-balanced axle load distribution and a modern all-aluminium chassis ensure superior agility, safety, and comfort under all conditions. The principle of intelligent lightweight technology, in turn, gives the chassis and suspension supreme stability combined with even lighter weight and unsprung masses reduced to a minimum.

The spring-strut tiebar front axle, as one example, is made completely of aluminium, with the exception of just a small number of components subject to particularly great loads such as the track rods, wheel bearings or pivot arms.

The integral-IV rear axle is also made almost completely of aluminium, with the four control arms guiding the rear axle being fastened not directly to the body of the car, but rather elastically on an axle subframe in order to optimise the car's tracking stability and motoring comfort.

Built-in safety: runflat tyres and tyre defect indicator.

Both the BMW 630i and the BMW 635d come as standard with 17-inch light-alloy wheels. The BMW 650i, in turn, boasts 18-inch light-alloy wheels as a standard feature.

All tyres on all models are runflat tyres enabling the driver to continue to the nearest workshop even under a complete loss of air pressure. And last but certainly not least in this context, the tyre pressure indicator permanently monitors air pressure and warns the driver once tyre pressure drops more than 30 per cent below the ideal level by way of an optical signal in the instrument cluster.

Shorter stopping distances, even faster brake response.

The high-performance swing-calliper brakes with inner-vented brake discs are controlled hydraulically on all models in the new BMW 6 Series.

As a result, these highly effective brakes now come in even faster and more precisely, ensuring maximum stability and full brake power at all times.

Another forte of the premium brake system on the new BMW 6 Series is its low weight.

The brake system on the BMW 650i offers a particular high standard of all-round performance reflecting the supreme power of the engine. And again last but not least, the BMW 6 Series comes as standard with a continuous wear indicator informing the driver at all times on the condition of the brake pads.

DSC Dynamic Stability Control with optimised control functions.

Offering a wide range of different functions, DSC Dynamic Stability Control supports the driver in handling his BMW with maximum safety and supremacy. The first and foremost function of DSC is to apply the brakes as required on individual wheels or intervene in engine management in order to avoid under- or oversteer in bends.

The system also comprises ABS brake control as well as ASC Automatic Stability Control preventing the drive wheels from spinning on slippery or loose surfaces, a Brake Assistant and CBC Cornering Brake Control. Further functions are Fading Compensation whenever the brakes become particularly hot, regular Dry Braking serving to optimise brake power in the wet, and a Start-Off Assistant for leaving a parking position on an uphill gradient smoothly and without rolling back, without being required to use the handbrake in the process.

The Brake Assistant featured as part of the DSC system in the new BMW 6 Series is networked with other driver assistance systems, the combination with Active Cruise Control complete with Stop & Go available as an option using radar sensors to determine the need for extra stopping power at an even earlier point. In this case the brake system is pre-loaded by reducing the release thresholds of the hydraulic Brake Assistant and brake pressure is built up immediately in the brake system to move the brake pads closer to the discs without causing any noticeable deceleration of the car.

In the event of an emergency braking manoeuvre, these safety measures serve to build up maximum stopping power much more quickly, making the car's stopping distance a lot shorter and providing valuable safety reserves.

Optimised control by the DSC system ensures very sensitive intervention whenever required under extreme conditions. Enhanced DTC Dynamic Traction Control activated at the touch of a button without in any way impairing the car's power and performance, in turn, is a particularly good match for the sporting character of the BMW 6 Series.

The DTC mode moves the response thresholds of DSC Dynamic Stability Control to a higher level, enabling the driver, for example, to set off smoothly in deep snow, deliberately allowing the wheels to spin slightly.

A further advantage of DTC Dynamic Traction Control optimised on the new BMW 6 Series is the increase in lateral acceleration up to a controlled power slide in bends. And if he wishes, the driver is naturally able to completely deactivate DSC in order to meet his personal demands.

Unique: Active Steering for even greater comfort at all speeds.

The new BMW 6 Series features hydraulic rack-and-pinion steering including Servotronic, varying steering assistance via a control map as a function of driving speed. The result is supreme steering precision and driving safety at all speeds and at all times.

Steering comfort is further enhanced by optional Active Steering exclusive to the BMW 6 Series in this segment of the market. While Servotronic fitted as standard controls the steering forces required, Active Steering varies the steering transmission ratio as a function of road speed. In practice this means that at a lower speed the same movement of the steering wheel moves the front wheels to a larger angle than at a higher speed, allowing the driver to manoeuvre the car when parking, for example, with less effort and lower steering forces. At high speeds, on the other hand, steering precision is enhanced accordingly, with the car remaining smoothly on track.

To provide this effect, movements of the steering wheel are transmitted via an add-on transmission on the steering train. The steering angle chosen by the driver is modified in this case by means of an electric motor operating via a planetary gearing, the degree of adjustment depending on the speed of the car and its lateral acceleration determined by yaw rate sensors.

Networked with Dynamic Stability Control, Active Steering, when intervening in driving stability control in fast and dynamic bends, countersteers in a discreet, intangible process, giving the car additional stability. Via yaw rate control, the Active Steering is also able to stabilise the car when applying the brakes on surfaces with a varying frictional coefficient (modal split), appropriate countersteering preventing the car from swerving out of control.

Dynamic Drive for greater precision and supremacy at the wheel.

A particular innovation providing a perfect match for the character of the BMW 6 Series is optionally available in the form of Dynamic Drive chassis and suspension control. This cutting-edge technology enhances both the car's sporting behaviour and the superior driving comfort enjoyed by the driver and his passengers.

Suppressing body roll in bends, Dynamic Drive ensures superior agility, comfort and stability in all driving situations, the significant increase in both driving safety and precision in steering manoeuvres setting new standards in suspension technology. As a result, the BMW 6 Series takes even long and fast bends without any body roll or swaying motion of the body. Even when changing direction several times in rapid succession, the system reduces body sway to a minimum. And when changing lanes or avoiding an obstacle ahead on the road, Dynamic Drive again improves the car's steering behaviour, ensuring significant enhancement of driving safety also in such cases.

Dynamic Drive consists of active rollbars on the front and rear axle using hydraulically operated step motors to almost completely set off any movement of the body. The housing and shaft on each step motor are each connected with one half of the rollbar in order to set off undesired movement of the body by means of hydraulic pressure.

Cruise control complete with brake application.

Automatic cruise control complete with a brake application function is standard on the new BMW 6 Series. The system serves to maintain a specific speed of at least 30 km/h or 20 mph set by the driver in advance, regardless of the route he is taking, uphill or downhill gradients, etc.

To provide this function, cruise control either increases engine power by itself or reduces the speed of the car. Unlike conventional cruise control, however, this system is able to reduce the speed of the car not only through the drag forces applied by the engine and by shifting back on cars with automatic transmission, but also by activating the brakes, thus consistently maintaining the speed of the car also on long downhill gradients or when towing a trailer.

A further important feature is that the system is able to reduce the speed of the car in bends to a level below the desired speed whenever required for reasons of driving dynamics. This effect is ensured by interaction with DSC Dynamic Stability Control incorporating sensors providing data on the car's lateral acceleration and steering angle. If necessary, the speed of the car is even reduced to such an extent that lateral acceleration remains at a low and comfortable level, with the BMW 6 Series then re-accelerating at the end of a bend to the speed pre-set by the driver.

The driver operates cruise control by means of a lever on the steering column. Pulling or pressing this lever, he is able to select his current speed as the desired speed level and then vary such speed as he wishes. The desired speed currently set is presented by an illuminated marker in the speedometer.

All the driver has to do to deactivate the system is operate the control lever or press down the footbrake. And then he is able to re-activate the speed set previously by pressing the Resume button.

Last but not least, the driver also has the opportunity to use the control lever for accelerating or reducing the speed of the car, thus increasing or reducing road speed in two dynamic stages without even pressing down the accelerator pedal.

Active Cruise Control with Stop & Go.

Active Cruise Control with its Stop & Go function offers the driver even greater support and assistance. This innovative system now available as an option on automatic transmission models of the BMW 6 Series also comprises automatic distance control from the vehicle ahead, enabling the driver to smoothly cruise along in style even in congested traffic and at low speeds, offering a significant improvement in motoring comfort under such conditions often regarded as stressful and irritating.

Using Active Cruise Control, the driver has the choice of four distance settings – and as soon as the distance to the vehicle ahead drops below the setting chosen by the driver, ACC adjusts the speed of the car by intervening in drivetrain management and building up brake pressure in order to comply with current traffic requirements. Then, as soon as the road ahead is free again, the car's speed is increased to the speed set by the driver in advance, enabling the driver to enjoy stress-free motoring in the new BMW 6 Series in particular style and comfort.

Active Cruise Control intelligently relieves the driver of the usual stress, allows him to concentrate more thoroughly on the driving experience, and ensures greater supremacy at the wheel. It can even reduce the speed of the car to a standstill whenever necessary on account of traffic conditions, with the car coming to a halt and being held in position until conditions are appropriate for continuing.

The maximum stopping power generated by Active Cruise Control with Stop & Go is 4 metres/sec². So should the driver be required to intervene because the motorist ahead is applying the brakes extremely hard, he is urged to do so by both optical and acoustic signals.

Active Cruise Control with Stop & Go uses the latest generation of radar sensors covering a larger field of visibility and stands out in particular by broad coverage of the area directly in front of the car. To provide this superior coverage, ACC with Stop & Go combines a long-range sensor covering distances of up to 150 metres or almost 500 feet with two short-range sensors able to detect vehicles ahead at a distance of up to 20 metres or 66 feet. The radar sensors are integrated inconspicuously in the front end of the car, naturally in full conformity with the car's design.

In stop-and-go traffic the system again helps the driver by reliably maintaining an appropriate distance from the vehicle ahead, thus relieving the driver of any need to apply the brakes regularly, as is otherwise required in slow and congested traffic.

The driver nevertheless remains in control and retains his responsibility at all times, being required, for example, after a short stop lasting more than three seconds, to briefly press down the accelerator or press the Resume button to set off again, thus giving the car the command to accelerate.

Even with Active Cruise Control currently activated, the driver is able to influence road speed at any time by giving gas or applying the brakes. And by pressing down the brake pedal while driving he interrupts his use and operation of the system.

With the system currently operating, the driver is able, pressing down the paddle switch serving to maintain the car's distance for a somewhat longer period, to switch over from Active Cruise Control with Stop & Go to "regular" cruise control with its brake application function and vice versa. This gives the driver the option to use cruise control also at a speed of more than 180 km/h or 112 mph.

Always keeping clearly on course: Lane Departure Warning.

To support the driver in remaining alert on the road, both the new BMW 6 Series Coupé and the new BMW 6 Series Convertible come with a newly developed assistance system serving to prevent undesired departure from the right lane on the road: Referred to as Lane Departure Warning, this system detects any deviation from the correct line of travel and gives the driver a discreet but noticeable signal at precisely the point most significant to his steering behaviour – on the steering wheel.

The Lane Departure Warning system is made up of a camera installed in the windscreen near the interior mirror, a control unit serving to compare data, and a signal transmitter actuating a discreet but unmistakable vibration signal on

the steering wheel. And whenever the driver indicates his intention to change lanes or direction by operating the direction indicator, the Lane Departure Warning system takes this, too, into account, cancelling out the warning signal.

To provide this supporting function, the camera in this system monitors the markings at least on one side of the lane and their distance to the current position of the car. The control unit then evaluates this data and distinguishes, taking the actual course of the car into account, between insignificant and potentially dangerous deviation from the desired course.

Lane Departure Warning looks sufficiently far ahead to allow the driver to make any corrections required without an undue effort or hectic reaction. So with the camera ensuring both a very high level of resolution and accurate images, the system is able to look ahead some 50 metres or almost 500 feet, and also works at night as long as the headlights are switched on.

A further feature of Lane Departure Warning is that it adjusts to the speed of the car, operating at a lower level of tolerance as road speed increases. In that case, therefore, the minimum distance to the lane markings on the road leading to activation of the signal whenever not maintained, is automatically increased.

Active Lane Departure Warning is conceived for long-distance driving and may be activated as of a speed of 70 km/h or 50 mph, the vibration signal automatically cutting out once the driver has corrected the car's direction of travel.

Superior comfort and safety on all four seats.

Carrier structures able to take high loads, generous and clearly defined deformation zones front and rear, side impact protection integrated in the doors and rear side panels, and an extremely stiff passenger cell maintaining its function as the occupants' survival area even in a severe collision – all these components form the basic structure for the outstanding, very high level of passive safety within the BMW 6 Series.

Other features fitted as standard are a steering column deforming in a defined process in the event of a severe head-on collision and highly efficient restraint systems.

All seats come with three-point inertia-reel seat belts equipped with belt force limiters. Belt latch tensioners are fitted additionally at the front, tightening the belts whenever necessary.

The driver and front passenger are protected by both frontal and side airbags, the frontal airbags inflating in two stages as a function of collision intensity and speed. In a severe collision, therefore, a second ignition stage inflates the airbag completely even faster than in a less severe collision.

The BMW 6 Series Coupé comes additionally with the Advanced Head Protection System (AHPS) providing an exceptionally broad safety area along the side windows. The BMW 6 Series Convertible, on the other hand, features rollbars moving up automatically whenever required. In the event of a rollover, the rollbars move up from a module behind the rear-seat headrests within fractions of a second, locking firmly and securely in position.

This rollover protection is supplemented on the Convertible by the A-pillars made of high-strength steel and a windscreen frame made of profile elements receiving their contours optimised for loads and forces in an inner high-pressure moulding process.

All passive safety elements in both the BMW 6 Series Coupé and the BMW 6 Series Convertible are masterminded by BMW's innovative Advanced Crash Safety Module (ACSM). This high-tech system evaluates all signals coming in from the sensors for precise detection and recognition of crash conditions, activating the restraint systems and – in the Convertible – the rollbars both quickly and precisely where required.

Active headrests for an even higher standard of occupant safety.

The BMW 6 Series Coupé and the BMW 6 Series Convertible come as standard with electrically adjustable seats for the driver and front passenger including a triple memory function. The sports seats available as optional extras and also adjustable electrically have firmer upholstery, give the body even better support particularly in dynamic curves and bends, and offer adjustable thigh support.

The front seats on the BMW 6 Series Convertible boast a fully integrated belt system, while in the BMW 6 Series Coupé appropriately positioned belt anchoring points allow comfortable use of the restraint systems at any time. Easy Entry, finally, ensures convenient access to the rear seats whenever necessary, the two individual seats at the rear being separated from one another by an elevated cushion in between. And the sporting contours of the seat backrests, finally, ensure optimum safety at all times.

Newly developed active headrests on the front seats raise the level of passive safety in the new BMW 6 Series to an even higher standard. These headrests develop their protective effect in the event of a collision from behind by automatically reducing the distance to the driver's and passenger's head, thus preventing any rapid movement or rotational forces on the occupant's head, in the process significantly reducing the driver's and front passenger's risk of upper spine injury.

To provide this special safety effect, the headrests are moved forward by 60 millimetres or 2.36" and upward by 40 millimetres or 1.57", whenever the airbag control unit registers an impact against the rear end of the BMW 6 Series and transmits a signal for pyrotechnical activation of the system.

This, in turn, releases two springs moving the upholstered sections of the headrests into position. This cushions the occupant's head in good time, setting off any violent movement caused by impact energy acting on the car and thus minimising any forces around the driver's or front passenger's neck.

The bottom line offered by this improvement is a significant reduction of the risk of spinal injury and the phenomenon commonly referred to as whiplash trauma.

7. Features and Equipment: Exclusivity in its Most Modern Form.



- **Exclusive options for greater driving pleasure and safety: Head-Up Display, High Beam Assist, BMW Night Vision.**
- **Adaptive Headlights with variable light distribution.**
- **Leather with SunReflective Technology on the BMW 6 Series Convertible.**

As much as the BMW 6 Series, through its concept alone, is committed to heritage and tradition, the technical features of the car are clearly dedicated to modern style and progress. And indeed, this is no contradiction in terms, since the predecessors to both the Coupé and Convertible already pointed into the future in many ways.

Both the new BMW 6 Series Coupé and the new BMW 6 Series Convertible are therefore available with attractive features enhancing both suspension technology, driving assistance and comfort functions to an even higher standard – features exclusive to BMW in this exclusive segment. These are indeed innovations originally introduced only in the highest class of luxury performance motoring, for example in the BMW 7 Series and now also in the BMW 6 Series.

As a result, the BMW 6 Series ideally fulfils all the expectations made of a car in its class – particularly as the car connoisseur interested in a very dynamic Gran Turismo or an extremely sporting luxury Convertible will always be open to innovations in technology.

More performance, more safety, more comfort – through its wide range of standard features and numerous additional high-tech systems available as an option, the BMW 6 Series offers a particularly exclusive and thrilling rendition of sheer driving pleasure in its truest form. Hence, both the Coupé and Convertible are a perfect reflection of the innovative power of the BMW brand.

Perfect light, intelligently controlled.

Optimum visibility in all kinds of weather and under all light conditions is crucial to driving safety and motoring comfort – which is precisely why the BMW 6 Series comes as standard with bi-xenon headlights providing unparalleled illumination of the road ahead.

The dual round headlights feature corona rings conceived as daytime driving lights, these four striking light rings making both the Coupé and Convertible easy to recognise and identifiable at first sight as a BMW.

Innovative driver assistance systems also offer the opportunity to control the various light units with particular intelligence, and the new BMW 6 Series is available as an option with Adaptive Headlights ensuring supreme illumination of the road ahead following the bends in the road. In the process the headlights swivel from one side to the other in accordance with the position of the steering, as a function of the yaw rate and the road speed of the car.

Visibility is also optimised by variable light distribution also when driving in a straight line now introduced for the first time in the new BMW 6 Series: As a function of road speed, innovative control automatically enlarges the driver's line of visibility by expanding the light beam, broader distribution of light when driving in town at speeds below 50 km/h facilitating the recognition of objects on the left side of the road. In the motorway or **Autobahn** lights mode, on the other hand, the driver's line of vision is extended by increasing the range of the light beam and illuminating the left-hand side with greater intensity.

Activation of the foglamps at speeds of up to 70 km/h or 50 mph also ensures broader distribution of light and helps to brighten up the area directly in front of the car. At higher speeds, finally, the driver benefits not only from broader distribution of light, but also from the longer headlight range.

Featured as standard, automatic control of the driving lights makes motoring under changing conditions safer than ever before. This function incorporates two sensors in the windscreen, by means of which the car's electronic "brain" monitors light conditions and switches on the low-beam headlights automatically whenever necessary, for example when driving through a tunnel or with dusk setting in.

The rain sensor also featured as standard is an ideal supplement to the driving lights sensor, automatically determining the onset and severity of precipitation by means of optical measurement. If necessary, this function activates the windscreen wipers whenever required and adjusts wiper frequency to the degree of precipitation at any given point in time.

Seeing more, recognising more: High Beam Assist, BMW Night Vision.

The new BMW 6 Series is the only car in its segment optionally available with High Beam Assist, a system automatically switching off the high beam as soon as oncoming traffic or vehicles ahead are in sight or if the road is sufficiently illuminated, for example in a built-up area.

The process of switching over from low to high beam is also fully automatic, with the system being controlled by a camera integrated in the interior mirror and monitoring both ambient brightness and the traffic around the car.

Available as an option, BMW Night Vision offers even greater safety when driving at night. The “heart” of this unique system is a thermal imaging camera able to detect human beings, animals and objects emitting heat up to a distance of 300 metres or almost 1,000 feet on and next to the road, then transmitting a high-contrast image to the Control Display also used by the navigation system. This warns the driver in good time of possible hazards the human eye would not be able to detect from that distance.

Perfect ergonomics: iDrive control system and Head-Up Display.

All essential functions required for control purposes are in ergonomically ideal arrangement on or around the steering wheel of the driver-oriented cockpit of the new BMW 6 Series. The controls for all functions also relevant to the front passenger are concentrated on and around the centre console, which also houses the iDrive Controller used for activating and masterminding the entertainment and air conditioning systems as well as the optional navigation and telecommunication functions on the Control Display.

Even more intuitive operation of these functions is ensured by means of the new, programmable favourite buttons beneath the CD player. In this case all the user has to do to save a specific function is press the button somewhat longer, then pressing the button briefly to retrieve the function he wishes to use. And since the buttons are touch-sensitive, the driver is able to see immediately when touching a button which setting has been saved in each case.

The rotary knobs on the automatic air conditioning control unit with its extended functions also comes with additional buttons providing direct access to automatic programs for air distribution and air conditioning. So all the driver or front passenger has to do is touch the appropriate buttons, thus obtaining a graphic presentation of the current status of air conditioning on the Control Display.

As an option both the BMW 6 Series Coupé and the BMW 6 Series Convertible are available with a Head-Up Display projecting information relevant to the driver such as his road speed or navigation data directly into his line of vision at a particularly convenient ergonomic point right in front on the windscreen.

All the driver has to do in advance is specify by way of iDrive which information he would like to have, saving personal settings such as the brilliance of the presentation in the Key/Car Memory, the brightness of the data actually shown being automatically adjusted to ambient light conditions.

The Head-Up Display enhances driving safety by enabling the driver to take up important information without taking his eyes off the road. This makes the process of driving the car less tiring, since the driver is required far less frequently to change the focus of his eyes.

Navigation system Professional with full-word voice entry.

Optimised to an even higher standard, navigation system Professional is a particularly important comfort highlight on the new BMW 6 Series Coupé and the new BMW 6 Series Convertible. Among other major features, the new system offers refined graphic presentation on its 8.8-inch Control Display.

Yet another important highlight of the new navigation system Professional is its particularly reliable voice entry exclusive to BMW cars. This allows the user to specify his destination by speaking out a complete word, thus entering the destination required very conveniently and quickly.

Also available as an option, the mobile preparation kit with its Bluetooth interface is able to connect a large number of commercially available Bluetooth-compatible mobile phones to the electronics of the BMW 6 Series without requiring any wires or cables. This, in turn, allows the driver and passengers to use their mobile phones in the car via the hands-off operating unit and multifunction buttons on the steering wheel, thus benefiting from superior comfort and safety. The telephone directory, call lists and other data are automatically compared and verified with the car's on-board system, a snap-in adapter connecting the mobile phone with the car's aerial and charging the phone at the same time.

For perfect sound quality: top-of-the-range audio systems.

High-quality audio systems and telematics functions serve to enhance grand touring comfort and driving pleasure in the new BMW 6 Series to an even higher standard.

Particular sound quality is guaranteed above all by the BMW Individual High End Audio System featuring future-oriented Dirac Live signal processing as its particular highlight. The digital 9-channel amplifier with Digital Signal Processing (DSP) develops maximum output of no less than 825 Watt.

Supplemented by speed-related volume control and speed-related equalising, and incorporating top-end loudspeakers, the system sets the standard in terms of sound reproduction, its brilliant quality of sound guaranteeing supreme music pleasure on all seats in the BMW 6 Series.

Featured as standard, the AUX-In bush provides an additional option to connect external audio sources. In addition, there is also an optional USB interface for particularly convenient use of an external MP3 player in the car, meaning that all versions of the Apple iPod can be completely integrated in the BMW 6 Series' audio system, with their functions masterminded either by iDrive or via the multifunction buttons on the steering wheel.

This wide range of multi-media functions is rounded off by the BMW Online mobile internet portal and the BMW Assist telematics service. One example of BMW Online is the Convertible Weather Service telling the driver whether he will presumably be able to drive his BMW 6 Series Convertible with the roof down on the next day or whether to expect rain.

The new BMW 6 Series is also available with BMW TeleServices offering the BMW customer a universal range of services from the BMW Group. The only prerequisite is that the car is equipped with a telephone and navigation system.

Sending out a BMW Teleservice Call, the car automatically transmits all information of importance for the workshop to the customer's BMW Service Partner for the next inspection.

Leather upholstery with SunReflective Technology on the Convertible.

One of the particular highlights on the BMW 6 Series Convertible is the use of newly developed, very special leather on the seat upholstery and interior trim. In this case so-called "cool pigments" integrated into the leather serve to reflect infra-red radiation in the sunlight. Such pigments in a different colour thus very effectively prevent any excessive overheating of the seat surfaces in the open car, an unpleasant phenomenon otherwise often experienced particularly in perfect convertible weather.

To limit excessive temperatures on the seats and armrests, BMW is the first car maker in the world to use SunReflective Technology for the treatment of leather surfaces. Compared with conventional leather, this may reduce the difference in temperature on the surface in the case of dark colours by up to 20 °C – and even with light upholstery, the heating effect is significantly smaller. All other features and properties of the leather upholstery naturally remain unchanged, without any effect on their quality.

Direct contact with the sunshine and the wind rushing by is a truly heavenly experience in the BMW 6 Series Convertible, although the BMW 6 Series Coupé is also remarkably light and offers clear visibility inside thanks to the unusually large glass panorama vent roof available as an option and giving the interior of the Coupé a particularly generous and bright ambience.

Apart from its large dimensions of 806 x 578 millimetres or 31.7 x 22.8", this glass roof stands out in particular through its electrically adjustable interior lining in aluminium sandwich structure for superior climate comfort and noise control, with hardly any reduction of headroom for the car's occupants.

Personal style of the highest standard: BMW Individual.

The wide range of options offered by BMW Individual offers perfect conditions for even greater refinement of the car's looks and features. Offering exclusive paintwork, interior trim and upholstery variants, BMW Individual ensures the highest standard of personal style for the customer in creating his – or her – very own BMW 6 Series Coupé or Convertible.

New paintwork options now available from BMW Individual are Dioxide Black, Aventurin Silver, and Brilliant White metallic, the last option being applied as an innovative four-layer finish complete with a special pearl effect and ensuring particularly attractive interaction with the daylight surrounding the car.

Special highlights within the interior, finally, are provided by new interior trim in Red Brown Olive.

An extremely tasteful combination of exterior and interior components offered by the BMW Individual programme is the Virtuoso composition. Inter alia, this unique combination comprises BMW Individual paintwork in Moonstone metallic or Ruby Black metallic combined in each case with high-gloss Satin Chrome Line, BMW Individual light-alloy wheels in V-spoke design, Merino all-leather upholstery in Platinum or Criollo Brown tailored in each case to the exterior paintwork of the car, and BMW Individual roof lining.

Last but certainly not least, both the Coupé and Convertible come with interior trim in Black piano paint and instrument string inlays, a BMW Individual leather steering wheel with wood ring inlays in Black piano paint, velour footmats embroidered in musical clef design, as well as an aluminium Controller for the iDrive system with laser engraving also in the design of a musical clef. And perfect sound appropriate for such an exclusive look is ensured, last but not least, by the BMW Individual High End Audio System.

Specifications. BMW 630i, 650i Coupé.

Body		630i Coupé	650i Coupé
No of doors/seats		2/2+2	2/2+2
Length/width/height (unladen)	mm	4,820/1,855/1,374	4,820/1,855/1,374
Wheelbase	mm	2,780	2,780
Track front/rear	mm	1,558/1,596	1,558/1,596
Turning circle	m	11.4	11.4
Tank capacity	approx ltr	70	70
Cooling system incl heating	ltr	10.0 (10.5)	13.8 (14.2)
Engine oil	ltr	6.5	8.0
Transmission fluid / final drive	ltr	Lifetime	Lifetime
Weight, unladen, to EU ¹	kg	1,605 (1,615)	1,725
Max load to DIN	kg	450	450
Max permissible weight to DIN	kg	1,980 (1,990)	2,100
Max axle load, front/rear	kg	980/1,090	1,060/1,130
Max trailer load braked (12%)/unbraked	kg	–	–
Max roof load/max towbar download	kg	–	–
Luggage comp capacity to VDA	ltr	450	450
Air drag	cd x A	0.30 x 2.15	0.30 x 2.15
Power Unit			
Configuration/No of cyls/valves		Straight/6/4	V90/8/4
Engine management		MSD80	ME9.2.3
Capacity	cc	2,996	4,799
Bore/stroke	mm	85.0/88.0	93.0/88.3
Compression ratio	: 1	12.0	10.5
Fuel grade	RON	91–98	91–98
Max output	kW/hp	200/272	270/367
at	rpm	6,700	6,300
Max torque	Nm/lb-ft	320/236	490/361
At	rpm	2,750–3,000	3,400
Electrical System			
Battery/installation	Ah/–	90/luggage comp	90/luggage comp
Alternator	A/W	155/2,170	180/2,520
Chassis and Suspension			
Suspension, front		Double-joint tiebar spring strut axle, aluminium; compensation of transverse forces; anti-dive	
Suspension, rear		Integral-IV multi-arm axle, aluminium; multi-dimensional suspension with anti-squat and anti-dive	
Brakes, front		Single-piston swing-calliper disc brakes	
Diameter	mm	348 x 30, vented	348 x 36, vented
Brakes, rear		Single-piston swing-calliper disc brakes	
Diameter	mm	345 x 24, vented	345 x 24, vented
Driving stability systems		DSC/DTC including the sub-functions ABS, CBC, DBC, ASC, MSR; optional: Dynamic Drive active anti-roll control	
Steering		Rack-and-pinion Servotronic steering; optional: Active	
Steering ratio, overall	: 1	14.4	
Transmission		Six-sp man gearbox (six-speed auto sports transm w shift paddles on steering	
Gear ratios	I	: 1 4.350 (4.171)	4.055 (4.171)
	II	: 1 2.496 (2.340)	2.396 (2.340)
	III	: 1 1.665 (1.521)	1.582 (1.521)
	IV	: 1 1.230 (1.143)	1.192 (1.143)
	V	: 1 1.000 (0.867)	1.0 (0.867)
	VI	: 1 0.851 (0.691)	0.872 (0.691)
	R	: 1 3.926 (3.403)	3.677 (3.403)
Final drive ratio	: 1	3.385 (3.909)	3.231 (3.462)
Tyres, front		245/50 R 17 99W RSC	245/45 R 18 96W RSC
Tyres, rear		245/50 R 17 99W RSC	245/45 R 18 96W RSC
Rims, front		7.5 J x 17 light-alloy	8 J x 18 light-alloy
Rims, rear		7.5 J x 17 light-alloy	8 J x 18 light-alloy
Performance			
Power-to-weight ratio, DIN	kg/kW	7.7	6.1
Output per litre	kW/hp	66.8/90.8	56.3/76.6
Acceleration 0–100 km/h	sec	6.2 (6.4)	5.1 (5.2)
Standing-start km	sec	25.8 (26.1)	23.9 (24.1)
in fourth/fifth gear 80–120 km/h	sec	6.5/– (–)	4.7/– (–)
Top speed	km/h	250	250
Fuel Consumption in EU Cycle			
Urban	ltr/100 km	11.2 (11.0)	17.8 (15.9)
Extra-urban	ltr/100 km	6.0 (5.8)	8.1 (7.4)
Composite	ltr/100 km	7.9 (7.7)	11.7 (10.5)
CO ₂	g/km	188 (184)	279 (249)
Miscellaneous			
Emission rating		EU4	EU4

¹Weight of car in road trim (DIN) plus 75 kg for driver and luggage.

BMW 635d Coupé.

Body		635d Coupé
No of doors/seats		2/2+2
Length/width/height (unladen)	mm	4,820/1,855/1,374
Wheelbase	mm	2,780
Track front/rear	mm	1,558/1,596
Turning circle	m	11.4
Tank capacity	approx ltr	70
Cooling system incl heating	ltr	9.8
Engine oil	ltr	8.5
Transmission fluid/final drive	ltr	Lifetime
Weight, unladen, to EU ¹	kg	1,725
Max load to DIN	kg	450
Max permissible weight to DIN	kg	2,100
Max axle load, front/rear	kg	1,060/1,140
Max trailer load		
braked (12%)/unbraked	kg	–
Max roof load/max towbar download	kg	–
Luggage comp capacity to VDA	ltr	450
Air drag	cd x A	0.30 x 2.15
Power Unit		
Configuration/No of cyls/valves		Straight/6/4
Engine management		DDE6.2.6
Capacity	cc	2,993
Bore/stroke	mm	84.0/90.0
Compression ratio	: 1	17.0
Fuel grade	RON	Diesel
Max output	kW/hp	210/286
at	rpm	4,400
Max torque	Nm/lb-ft	580/427
At	rpm	1,750–2,250
Electrical System		
Battery/installation	Ah/–	90/luggage comp
Alternator	A/W	180/2,520
Chassis and Suspension		
Suspension, front	Double-joint tiebar spring strut axle, aluminium; compensation of transverse forces; anti-dive	
Suspension, rear	Integral-IV multi-arm axle, aluminium; multi-dimensional suspension with anti-squat and anti-dive	
Brakes, front	Single-piston swing-calliper disc brakes	
Diameter	mm	348 x 36, vented
Brakes, rear	Single-piston swing-calliper disc brakes	
Diameter	mm	345 x 24, vented
Driving stability systems	DSC/DTC including the sub-functions ABS, CBC, DBC, ASC, MSR; optional: Dynamic Drive active anti-roll control	
Steering	Rack-and-pinion Servotronic steering; optional: Active Steering	
Steering ratio, overall	: 1	14.4
Transmission	Six-speed automatic sports transmission with shift paddles on steering wheel	
Gear ratios	I	: 1 4.171
	II	: 1 2.340
	III	: 1 1.521
	IV	: 1 1.143
	V	: 1 0.867
	VI	: 1 0.691
	R	: 1 3.403
Final drive ratio	: 1	3.154
Tyres, front	245/50 R 17 99W RSC	
Tyres, rear	245/50 R 17 99W RSC	
Rims, front	7.5 J x 17 light-alloy	
Rims, rear	7.5 J x 17 light-alloy	
Performance		
Power-to-weight ratio, DIN	kg/kW	7.9
Output per litre	kW/hp	70.2/95.5
Acceleration 0–100 km/h	sec	6.3
Standing-start km	sec	25.4
in fourth/fifth gear 80–120 km/h	sec	–/–
Top speed	km/h	250
Fuel Consumption in EU Cycle		
Urban	ltr/100 km	9.2
Extra-urban	ltr/100 km	5.6
Composite	ltr/100 km	6.9
CO ₂	g/km	183
Miscellaneous		
Emission rating		EU4

¹Weight of car in road trim (DIN) plus 75 kg for driver and luggage.

BMW 630i, 650i Convertible.

Body		630i Convertible	650i Convertible
No of doors/seats		2/2+2	2/2+2
Length/width/height (unladen)	mm	4,820/1,855/1,374	4,820/1,855/1,374
Wheelbase	mm	2,780	2,780
Track front/rear	mm	1,558/1,596	1,558/1,596
Turning circle	m	11.4	11.4
Tank capacity	approx ltr	70	70
Cooling system incl heating	ltr	10.0 (10.5)	13.8 (14.2)
Engine oil	ltr	6.5	8.0
Transmission fluid/final drive	ltr	Lifetime	Lifetime
Weight, unladen, to EU ¹	kg	1,815 (1,825)	1,935 (1,935)
Max load to DIN	kg	400	400
Max permissible weight to DIN	kg	2,140 (2,150)	2,260
Max axle load, front/rear	kg	1,020/1,210	1,100/1,250
Max trailer load			
braked (12%/unbraked)	kg	–	–
Max roof load/max towbar download	kg	–	–
Luggage comp capacity to VDA	ltr	300–350	300–350
Air drag	cd x A	0.31 x 2.15	0.31 x 2.15
Power Unit			
Configuration/No of cyls/valves		Straight/6/4	V90/8/4
Engine management		MSD80	ME9.2.3
Capacity	cc	2,996	4,799
Bore/stroke	mm	85.0/88.0	93.0/88.3
Compression ratio	: 1	12.0	10.5
Fuel grade	RON	91–98	91–98
Max output	kW/hp	200/272	270/367
at	rpm	6,700	6,300
Max torque	Nm/lb-ft	320/236	490/361
at	rpm	2,750–3,000	3,400
Electrical System			
Battery/installation	Ah/–	90/luggage comp	90/luggage comp
Alternator	AW	155/2,170	180/2,520
Chassis and Suspension			
Suspension, front		Double-joint tiebar spring strut axle, aluminium; compensation of transverse forces; anti-dive	
Suspension, rear		Integral-IV multi-arm axle, aluminium; multi-dimensional suspension with anti-squat and anti-dive	
Brakes, front		Single-piston swing-calliper disc brakes	
Diameter	mm	348 x 30, vented	348 x 36, vented
Brakes, rear		Single-piston swing-calliper disc brakes	
Diameter	mm	345 x 24 , vented	345 x 24, vented
Driving stability systems		DSC/DTC including the sub-functions ABS, CBC, DBC, ASC, MSR; optional: Dynamic Drive active anti-roll control	
Steering		Rack-and-pinion Servotronic steering; optional: Active Steering	
Steering ratio, overall	: 1	14.4	14.4
Transmission		Six-sp man gearbox (six-speed auto sports transm w shift paddles on steering wheel))	
Gear ratios	I	: 1	4.350 (4.171)
	II	: 1	2.496 (2.340)
	III	: 1	1.665 (1.521)
	IV	: 1	1.230 (1.143)
	V	: 1	1.000 (0.867)
	VI	: 1	0.851 (0.691)
	R	: 1	3.926 (3.403)
Final drive ratio	: 1	3.385 (3.909)	3.462
Tyres, front		245/50 R 17 99W RSC	245/45 R 18 96W RSC
Tyres, rear		245/50 R 17 99W RSC	245/45 R 18 96W RSC
Rims, front		7.5 J x 17 light-alloy	8 J x 18 light-alloy
Rims, rear		7.5 J x 17 light-alloy	8 J x 18 light-alloy
Performance			
Power-to-weight ratio, DIN	kg/kW	8.7 (8.8)	6.9
Output per litre	kW/hp	66.8/90.8	56.3/76.6
Acceleration 0–100 km/h	sec	6.7 (7.0)	5.5 (5.6)
Standing-start km	sec	26.6 (26.8)	24.5 (24.7)
in fourth/fifth gear 80–120 km/h	sec	7.3/– (–)	4.9/– (–)
Top speed	km/h	250	250
Fuel Consumption in EU Cycle			
Urban	ltr/100 km	11.8 (11.6)	19.2 (16.5)
Extra-urban	ltr/100 km	6.3 (6.0)	8.8 (7.7)
Composite	ltr/100 km	8.3 (8.1)	12.6 (10.9)
CO ₂	g/km	198 (192)	299 (258)
Miscellaneous			
Emission rating		EU4	EU4

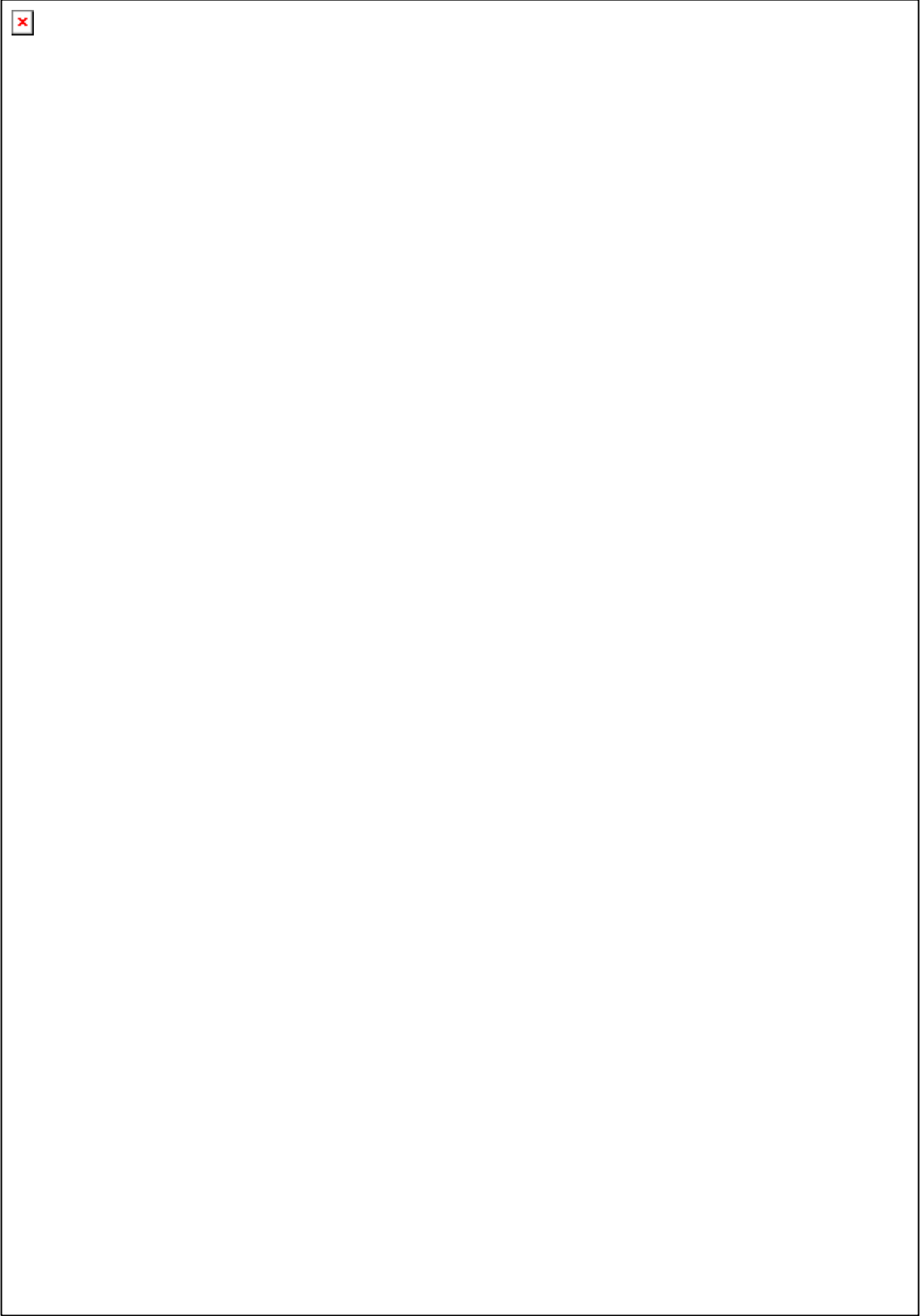
¹Weight of car in road trim (DIN) plus 75 kg for driver and luggage.

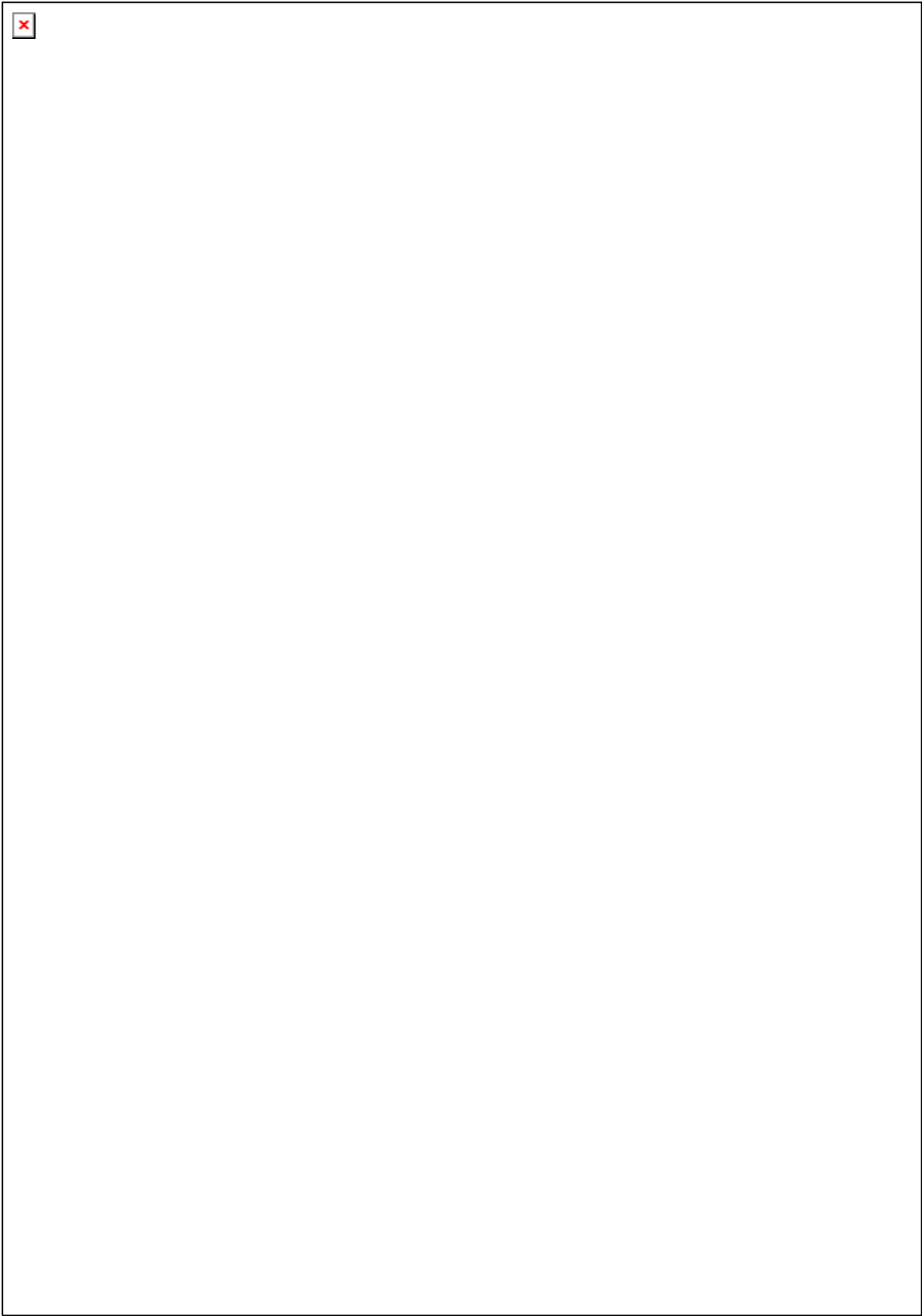
BMW 635d Convertible.

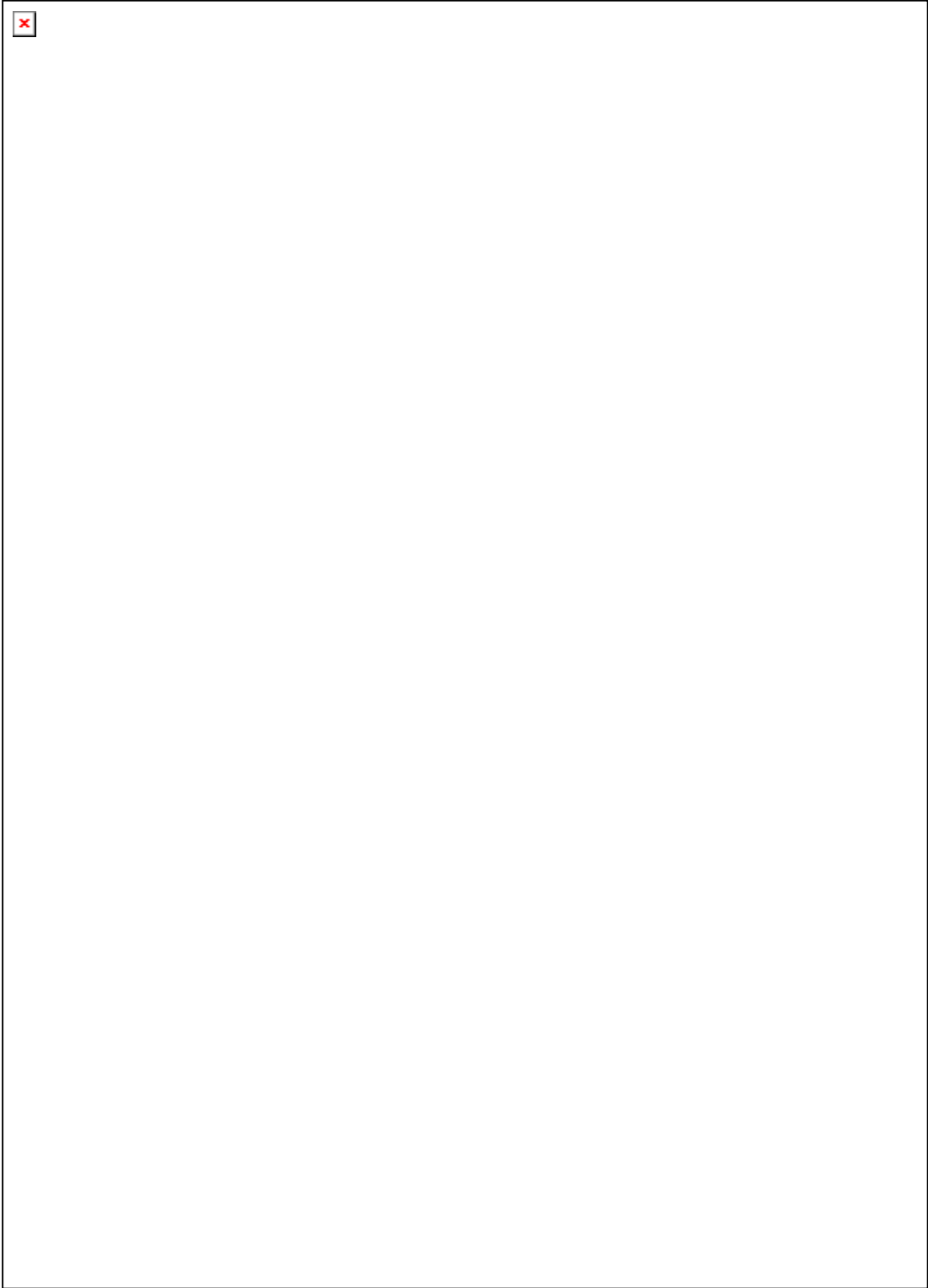
Body		635d Convertible
No of doors/seats		2/2+2
Length/width/height (unladen)	mm	4,820/1,855/1,374
Wheelbase	mm	2,780
Track front/rear	mm	1,558/1,596
Turning circle	m	11.4
Tank capacity	approx ltr	70
Cooling system incl heating	ltr	9.8
Engine oil	ltr	8.5
Transmission fluid/final drive	ltr	Lifetime
Weight, unladen, to EU ¹	kg	1,935
Max load to DIN	kg	400
Max permissible weight to DIN	kg	2,260
Max axle load, front/rear	kg	1,100/1,250
Max trailer load		
braked (12%/unbraked)	kg	–
Max roof load/max towbar download	kg	–
Luggage comp capacity to VDA	ltr	300–350
Air drag	cd x A	0.31 x 2.15
Power Unit		
Configuration/No of cyls/valves		Straight/6/4
Engine management		DDE6.2.6
Capacity	cc	2,993
Bore/stroke	mm	84.0/90.0
Compression ratio	: 1	17.0
Fuel grade	RON	Diesel
Max output	kW/hp	210/286
at	rpm	4,400
Max torque	Nm/lb-ft	580
at	rpm	1,750–2,250
Electrical System		
Battery/installation	Ah/–	90/luggage comp
Alternator	A/W	180/2,520
Chassis and Suspension		
Suspension, front	Double-joint tiebar spring strut axle, aluminium; compensation of transverse forces; anti-dive	
Suspension, rear	Integral-IV multi-arm axle, aluminium; multi-dimensional suspension with anti-squat and anti-dive	
Brakes, front	Single-piston swing-calliper disc brakes	
Diameter	mm	348 x 36, vented
Brakes, rear	Single-piston swing-calliper disc brakes	
Diameter	mm	345 x 24, vented
Driving stability systems	DSC/DTC including the sub-functions ABS, CBC, DBC, ASC, MSR; optional: Dynamic Drive active anti-roll control	
Steering	Rack-and-pinion Servotronic steering; optional: Active Steering	
Steering ratio, overall	: 1	14.4
Transmission	Six-speed automatic sports transmission with shift paddles on steering wheel	
Gear ratios	I	: 1 4.171
	II	: 1 2.340
	III	: 1 1.521
	IV	: 1 1.143
	V	: 1 0.867
	VI	: 1 0.691
	R	: 1 3.403
Final drive ratio	: 1	3.154
Tyres, front	245/50 R 17 99W RSC	
Tyres, rear	245/50 R 17 99W RSC	
Rims, front	7.5 J x 17 light-alloy	
Rims, rear	7.5 J x 17 light-alloy	
Performance		
Power-to-weight ratio, DIN	kg/kW	8.9
Output per litre	kW/hp	70.2/95.5
Acceleration 0–100 km/h	sec	6.6
Standing-start km	sec	26.2
in fourth/fifth gear 80–120 km/h	sec	–/–
Top speed	km/h	250
Fuel Consumption in EU Cycle		
Urban	ltr/100 km	9.6
Extra-urban	ltr/100 km	5.8
Composite	ltr/100 km	7.2
CO ₂	g/km	190
Miscellaneous		
Emission rating	EU4	

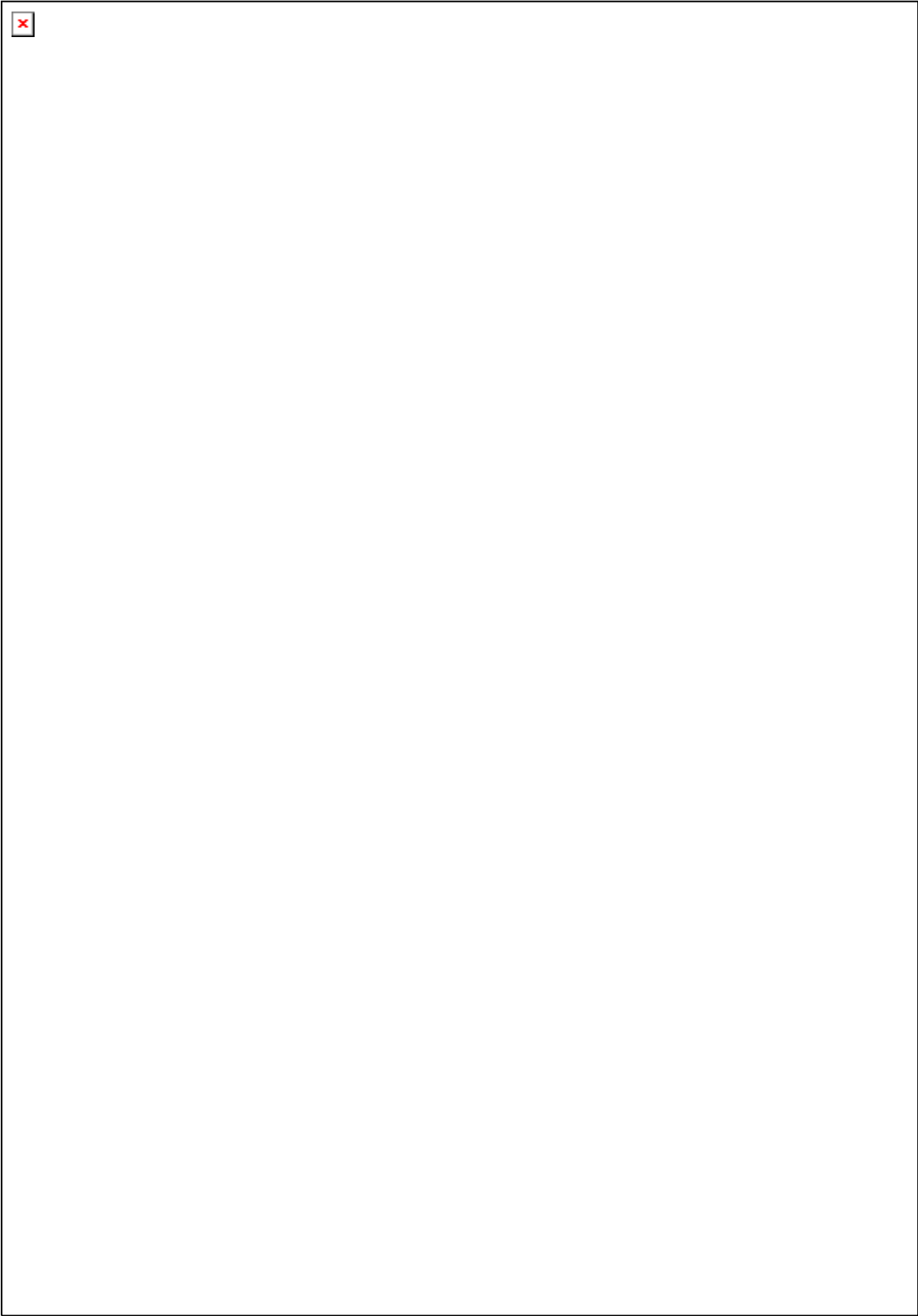
¹Weight of car in road trim (DIN) plus 75 kg for driver and luggage.

9. Exterior and Interior Dimensions.

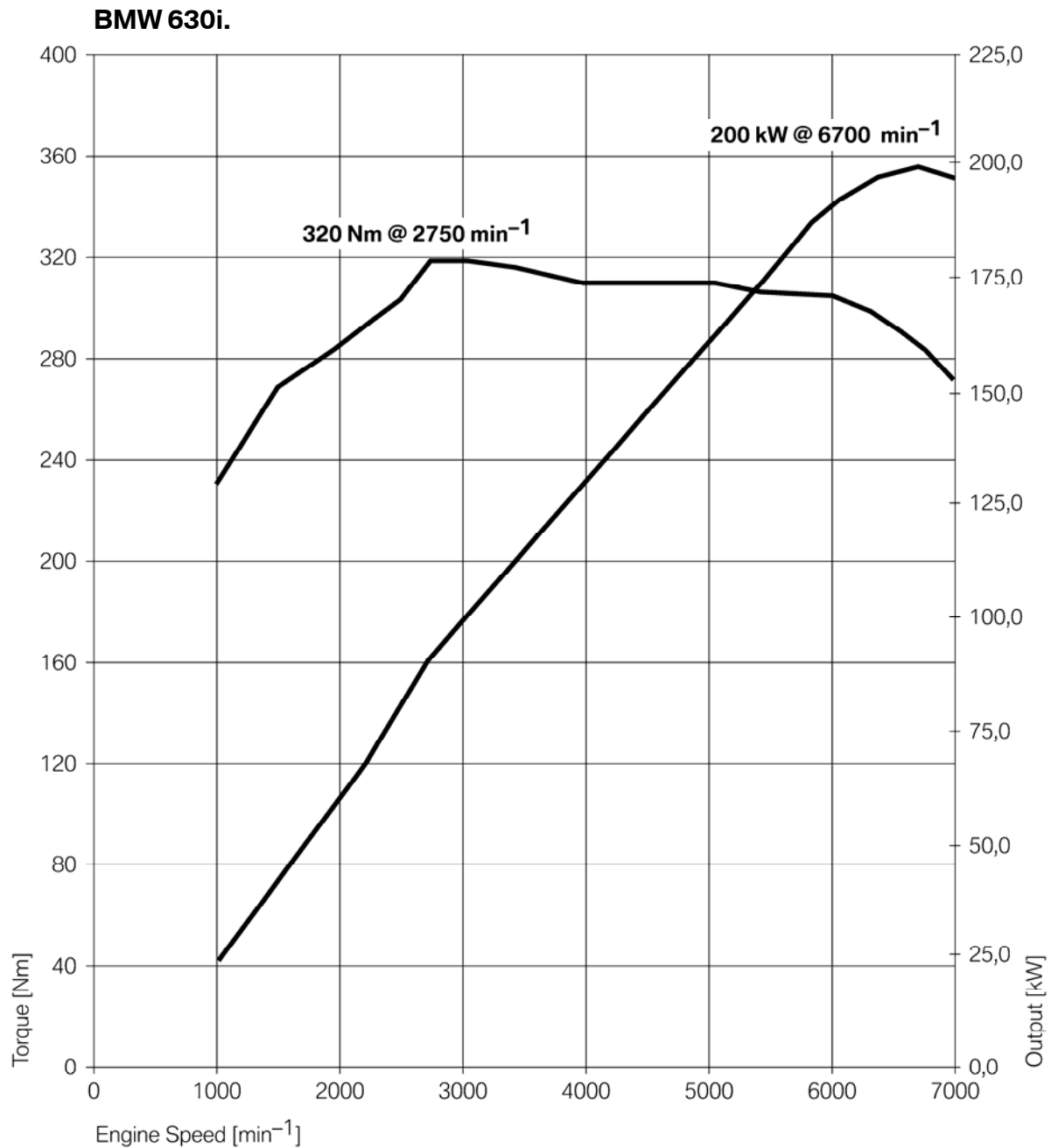








10. Power and Performance Diagrams.



BMW 650i.

