The new BMW 1 Series Convertible.
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Brief description.

- Compact and outstandingly agile Convertible based on the BMW 1 Series; four seater with electro hydraulic operated soft-top, first premium Convertible in the compact vehicle segment.

- Consistent extension of the BMW 1 Series: The BMW 1 Series Convertible follows the five door, 3 door and the 1 Series Coupé as the fourth model in the series. Marque typical characteristic in new dimensions: BMW 1 Series Convertible as authentic entry into the world of BMW Convertibles.

- Youthful elegant design with all the characteristics of a BMW Convertible: slim silhouette, muscular wheel housings, markedly distinct shoulder line. The flat breast line and the large distance between the driver and front passenger from the windscreen guarantee a unique open top driving experience in a BMW Convertible.

- Soft top opens and closes within 22 seconds. The cover drive can be activated up to speeds of 40 kmph/25 mph. Exclusive and worldwide cover models as an option: anthracite with shiny threads to give iridescent effect in sunlight.

- Well-defined, generous interior design, high quality trim and upholstery with multiple colour and material choices; big range of variations with the available option of load through including transit bag. This connection between the luggage space and the rear of the car interior provides a unique load capacity for this segment, which means it is able to carry two golf bags or two snowboards.

- Leather throughout with sun reflective technology has the effect of greatly reducing the heating up of surfaces by sunlight. Automatic climate control with special BMW exclusive convertible mode.

- Unique driving pleasure with rear wheel drive and high performance engines: four petrol engines (105 kW/143 hp to 225 kW/306 hp), a four cylinder turbo diesel (130 kW/177 hp) with particulate filter as standard.

- BMW EfficientDynamics in all engine models; brake energy regeneration on specific models, Auto Start Stop function, changing point indicator, electronic power steering (EPS), needs orientated control of auxiliary units and active aerodynamics to reduce fuel consumption and emissions.

- Comprehensive safety equipment as standard: air bags, seat belt pretensioners, belt force limiters, rollover protection features with automatic extending protection hoop guard behind the head rests in the rear seats; crash optimised front seat backs and head rests reduce the injury risk in rear end impacts, extremely strong torsion rigid chassis structure.

- A unique selection of audio, communication and navigation options for the compact segment, standard AUX-In as well as USB and Bluetooth interfaces for uncomplicated connection or complete integration of Apple iPod and other MP3 players or memory sticks.

- Intricately designed suspension with rear wheel drive; aluminium constant velocity joint bodywork, aluminium double-joint tie bar axle at the front; five-arm rear axle in lightweight steel, dynamic stability control including dynamic traction control, energy saving power steering, BMW exclusive active steering optional. Traction optimisation by electronic management providing the same effect as a differential lock on the BMW 135i Convertible.

- Top of the range model BMW 135i Convertible with modified M Aerodynamics Package from the M Sports Package as standard.

- Engine options:
  BMW 135i Convertible: straight six cylinder petrol engine with Twin Turbo and direct injection (High Precision Injection),
  capacity: 2,979 cm^3, output: 225 kW/306 hp at 5,800 min^{-1},
  max. torque: 400 Nm at 1,300–5,000 min^{-1},
  acceleration [0–100 kmph]: 5.6 seconds,
  top speed: 250 kmph/155 mph (electronically limited),
  average consumption according to EU: Data not yet available at time of going to press,
  CO_2 emission according to EU: Data not yet available at time of going to press.

  BMW 125i Convertible: in-line six cylinder petrol engine with magnesium aluminium alloy crankcase, double VANOS and VALVETRONIC,
  capacity: 2,996 cm^3, output: 160 kW/218 hp at 6,100 min^{-1},
  max. torque: 270 Nm at 2,500 min^{-1},
  acceleration [0–100 kmph]: 6.8 seconds,
  top speed: 238 kmph/148 mph,
  average consumption according to EU: 8.1 litres/100 kilometres,
  CO_2 emission according to EU: 195 g/km.

BMW 120i Convertible: straight four cylinder petrol engine with direct injection (High Precision Injection),
capacity: 1,995 cm^3, output: 125 kW/170 hp at 6,700 min^{-1},
max. torque: 210 Nm at 4,250 min^{-1},
acceleration [0–100 kmph]: 8.4 seconds,
top speed: 220 kmph/135 mph,
average consumption according to EU: 6.6 litres/100 kilometres,
CO_2 emission according to EU: 158 g/km.

BMW 118i Convertible: straight four cylinder petrol engine with direct injection (High Precision Injection),
capacity: 1,995 cm^3, output: 105 kW/143 hp at 6,000 min^{-1},
max. torque: 190 Nm at 4,250 min^{-1},
acceleration [0–100 kmph]: 9.3 seconds,
top speed: 210 kmph/130 mph,
average consumption according to EU: Data not yet available at time of going to press,
CO_2 emission according to EU: Data not yet available at time of going to press.

BMW 120d Convertible: straight four cylinder diesel engine with turbo charge and common rail direct injection, diesel particulate filter standard,
capacity: 1,995 cm^3, output: 130 kW/177 PS at 4,000 min^{-1}, max. torque: 350 Nm at 1,750– 3,000 min^{-1},
acceleration [0–100 kmph]: 8.1 seconds,
top speed: 222 kmph/138 mph,
average consumption according to EU: Data not yet available at time of going to press,
CO_2 emission according to EU: Data not yet available at time of going to press.

The new dimension of open top driving pleasure: The new BMW 1 Series Convertible.

If you are just as fond of pleasurable driving as you are in contact with sun and wind then the BMW 1 Series Convertible immediately comes into focus. The open two door continues the success of the BMW 1 Series and extends the typical driving experience in a BMW Convertible by a new dimension. The new BMW 1 Series Convertible combines sporting elegance of its design with the superior agility of the only compact car with rear wheel drive. Five high performance and efficient petrol and diesel engines are available to choose from at market entry level. New yardsticks for sporty driving pleasure are set above all by the top of the range model BMW 135i Convertible, which is powered by a 225 kW/306hp, 3.0 litre straight six cylinder engine with Twin Turbo and petrol direct injection and can be recognised by its subtly modified, standard M Aerodynamics Package. The engine range is comple-mented by a further six cylinder in the BMW 125i Convertible, which produces 160 kW/218 hp, two newly developed four cylinder engines with petrol direct injection and a per-formance of 125 kW/170 hp in the BMW 120i Convertible and 105 kW/143 PS in the BMW 118i Convertible as well as from a new generation four cylinder diesel with 130 kW/177 hp for the BMW 120d Convertible.

The BMW 1 Series Convertible is a four seater, with an electrohydraulically driven fabric roof opens and closes within 22 seconds – and if necessary can be operated while on the move at low speed. The first premium convertible in the segment of compact cars makes it possible to entry into the typical driving experience of a BMW Convertible. At the same time it interprets the BMW marque value of youthfulness and aesthetic wisdom. The BMW 1 Series Convertible embodies modern elegance in its appearance. The car gives a very slim impression with its low parallel to the road shoulder line and the dynamic contouring of its soft top. Driver, front seat passenger and rear seat passengers experience the openness created by the flat capping line, which is characteristic for a BMW Convertible. They enjoy a more intensive open air pleasure than is otherwise common in compact convertibles. The design concept of the new BMW 1 Series Convertible is oriented towards the typical character of the marque's open cars and is derived from the convertible history of BMW.

Exterior design: immediately recognisable as a BMW.

The compact dimensions of the new BMW 1 Series Convertible means that it does not impress by size but rather by a display of self confident design. It continues the development of the style of the series in a particularly elegant way. The characteristic features of the front skirt, door sills and rear skirt are identical in their detail to those on the BMW 1 Series Coupé.

The design of the vehicle silhouette with long frameless doors is the visual expression of the unique wheel drive car in this segment. The interlocking concave/convex surfaces are spanned by muscular wheel arches. The flanks have a firm and athletic appearance as there is little space above the wheels. The very low shoulder line in comparison in this segment has the effect of the whole vehicle being stretched and transmits the typical elegance of a convertible of the BMW marque.

Distinctive feature of the new BMW 1 Series Convertible is the flared shoulder line which runs parallel to the road. The shoulder line follows through from the bonnet past the A pillar right through to the boot lid, connecting the front and rear with each other and forming a surface which encompasses the whole interior. If the new BMW 1 Series Convertible is viewed from an elevated position the impression is of a boat deck because of the emphasised shoulder line.

Visual effect of the soft top emphasises the tail contour.

The tail view of the new BMW 1 Series Convertible is largely influenced by the visual effect of the soft top. If the roof is open, the horizontal body line unfolds its full effect. Because the canopy top is lowered completely into the boot, the BMW 1 Series Convertible appears particularly flat and sportingly elegant in the rear aspect. If the soft top is closed the widening contour below comes into its own.

The boot lid finishes in a discrete top edge with integrated third brake light. This aerodynamic element which has been included in the design, emphasises the shortness of the tail and also provides additional drive to the rear axle at high speeds. Concise horizontal light ridges in the middle and lower tail area contrast visually with the top edge which curves upwards.

The L shaped rear light clusters incorporate reversing light and directional indicators presented as a common white strip. The rear lights incorporate light conductors which are supplied by LED units. This configuration is typical of the marque and means that the BMW 1 Series Convertible can also be recognised as being a BMW in the dark.

Exclusive canopy fabric with interwoven shiny fibres.
As a premium vehicle the new BMW 1 Series Convertible comes up with some surprising design details. A soft top option is available as an alternative to the classical black or beige which is anthracite with silver effect. This worldwide first, a feature exclusively developed for the BMW 1 Series Convertible, the canopy is in a woven fabric which is interwoven with fine shiny metallic fibres. This gives the material a high quality metallic shimmering surface impression, which produces charming reflections in sunlight.

The choice of available body and interior colours underlines the youthful character of the new BMW 1 Series Convertible. Strong colours and intensive contrasts between exterior and interior achieve an effect for this model which is in unison with the exciting design and a driving experience accentuated by agility. The BMW 1 Series Convertible is given a particularly extrovert appearance by two exclusive body colours, Kashmir Silver and Sedona Red metallic.

Independent visual appearance and aerodynamics for the BMW 135i Convertible.
Among all the BMW 1 Series Convertible options, the most clearly sportily orientated BMW 135i Convertible differentiates itself from the other models by a standard modified M Aerodynamics Package from the M Sports Package. The extra large central air intake runs out upwards beside the number plate. The flanking, smaller air inlets are bordered by slightly contoured flaps. The front of the BMW 135i Convertible therefore looks wider than the other models. A further distinctive feature in the front aspect of the top of the range version is the chrome plated bars in the kidney grilles.

The side sills of the BMW 135i Convertible reduce the visual height of the side still further by an additional light flange. This way the flat impression of the silhouette is additionally emphasised. The wide track of the vehicle is clearly underlined at the rear of the vehicle. Visually conservative – but dynamically effective – the BMW 135i Convertible diffuser is integrated in the rear air dam below the bumper. It is painted matt black, the side finishes which are in the body colour therefore stand out more and direct attention towards the wheels. A further visual accent is created by the dark chrome exhaust pipe end baffles.

Interior design: premium quality with high quality materials.
The interior of the BMW 1 Series Convertible forms an elegant entity with the encompassing surfaces of the exterior. Building on the BMW 1 Series Coupé, the interior design was adapted to the requirements of an open vehicle. Concepts of coachwork and interior design interlink and support each other in their effect. The design of the capping identifies itself with the highly flared

shoulder and the boot lid. In this way a harmonic and elegant overall impression is created. The transition from exterior to interior is formed in a particularly high quality way by a chrome line running all round as standard on the BMW 135i Convertible and BMW 125i Convertible and as an optional extra on the four cylinder models. The run of the chrome line parallel to the road again emphasises the flat and therefore, for a BMW Convertible, typical silhouette. In conjunction with the chrome line an ergonomically ideally positioned seat belt guide for the front seats is in chrome.

The interior, with space for up to four people, thanks to its high quality materials, are clear structure and mature function solutions, corresponding to the impression of interiors of vehicles in higher segments. The door cap surfaces, which start from the windscreen and continue through to the rear, are markedly harmonised. Broad stretched, horizontal running lines dominate the cockpit. The upper area of the instrument panel is in black. A high quality graining on the surface of the instrument area, the door covering and central console underlines the quality image. The central area, where the operating controls are for the entertainment and air conditioning systems, melts with soft radii and flowing surface crossovers into the instrument panel and runs down to the central console between the two front seats.

The door openers, the adjustment units for the air vents, the surrounds of the start/stop buttons, the ash tray tilt grip, the glove box opener, the operating buttons and controls for audio and air conditioning as well as the decorative clasps on the optional leather steering wheel and the controls for the optional iDrive operating system have a galvanised pearlescent finish. The accent surfaces underline the high quality image of the interior of the BMW 1 Series Convertible.

An insert is integrated in the door cladding between the top capping line and the armrest, the contour of which follows those of the surrounding lines and which is clad with the same material as the seats. In the available leather version option, which is specially extended for the BMW 1 Series Convertible in its scope, includes the arm rests on the central console and the doors in addition to the seat finishes, the high quality image is further emphasised by a decorative seam.

Novel seat leather with sun reflective technology.

The advantages of the innovative sun reflective technology of the optional leather interior for the BMW 1 Series Convertible come into its own. BMW is the first automobile manufacturer in the world to use this technology to reduce the heating up of the surfaces by sunlight. The sun reflective technology used to treat the leather uses special colour pigments worked into the

material which cause the ultraviolet rays in the sunlight to be reflected. Heating up of the seat and armrest surfaces caused by sun rays can thus be largely prevented. The effect of the sun reflective technology is particularly noticeable with dark interior colours. In comparison to conventional leather finishes, a temperature difference of up to 20 degrees less can be achieved. Sun reflective technology also works on lighter leather finishes producing a much lower level of heating up of the surfaces by the sunlight.

A novel control of air distribution in the BMW 1 Series Convertible means that the automatic climate control offers greater comfort even with the roof open. In addition to the three levels “gentle”, “medium”, and “intensive” the automatic climate control also has a special convertible mode which can be used when the roof is open. As soon as this setting is selected, the ventilation control reacts less to the interior temperature. Instead the air conditioning controls orientate particularly to the outside temperature and sunlight factors to establish the intensity of the ventilation.

The optimum wind deflector on the new BMW 1 Series Convertible reduces above all the air turbulence in the interior at higher speeds. The wind deflector can be firmly fixed by a few hand adjustments via inlets in the side cladding at the rear of the car if required.

Load through possibilities with transit bag:
more room for sports equipment.

The 260 litres luggage space volume in the BMW 1 Series Convertible even with the roof open is noticeably generous and not beaten by any other convertible in this vehicle segment for load capacity. As soon as the soft top is closed, the variable cover which separates the canopy from the luggage space can be swivelled upwards. This increases the load space to 305 litres.
A specially designed rear seat backrest gives the BMW 1 Series Convertible a further increase and, for this class of vehicle, unique functionality. Its optionally available load opening into the rear of the interior of the car including a transit bag is higher and wider than conventional equipment of this sort. This means that the driver and front seat passenger have even more freedom when carrying sports equipment and other bulky objects. The transit bag is large enough to take, for example, two snowboards or a full size golf bag. Even if the roof is open there is ample space for two full size golf bags to be stowed crosswise. If one is pushed lengthwise into the transit bag then there is additional room in the luggage space for additional bags for example. A zip means access to the contents of the transit bag is possible from the rear of the car.

Even more extensive transport tasks can be carried out with all models by using a luggage rack - with the exception of the BMW 135i Convertible – which is available as an original BMW accessory and is fastened to the rear of the car. The aluminium rear rack can accommodate two bicycles, two snowboards or two pairs of skis safely. It is connected by a patented quick locking process with two retainers mounted in the rear fender and available ex-works as an option. The rear rack can be folded out of the way easily whether it is loaded or unloaded. This means that the luggage space in the boot can be conveniently and ergonomically loaded or unloaded, without the rear rack having to be dismantled beforehand.

BMW EfficientDynamics for all engines: more driving pleasure and reduced consumptions. Brake energy regeneration.
All petrol and diesel engines which are available for the new BMW 1 Series Convertible represent dynamism, efficiency and motoring culture in a typical BMW manner. They were designed within the BMW EfficientDynamics development strategy and are therefore equipped with a number of innovations to optimise the fuel consumption and emissions. The measures to increase the efficiency are applied in model specific combination and are in each case a part of the standard equipment. They are not confined to engine technology – reduction of friction, new combustion chamber design, weight reduction, optimising the fuel/air mixture using third generation common rail injection, VALVETRONIC or High Precision Injection, precise control of combustion and air channelling – but also the surroundings of the power units.

Intelligent energy management using brake energy regeneration.
Brake energy regeneration is one of the efficiency promoting measures with which every BMW 1 Series Convertible is equipped. It ensures by intelligent energy management in the vehicle that the production of power for the on-board network is concentrated on the overrun and braking phases. During acceleration the alternator is generally disengaged. On the road this means more power for typical BMW sheer driving pleasure.

The idea of this intelligent energy management can be compared to an energy storage power station, where low cost energy is stored at night in reservoirs at a higher altitude and retrieved during the day to cope with peak loads. Now applying this principle to brake energy regeneration in the new BMW 1 Series Convertible, energy can be stored in the battery under driving conditions requiring only a low amount of energy, then feeding this energy into the car on-board network whenever required.

To maximise the service life of the battery and set off the higher flow of energy, the BMW system of intelligent energy management operating in conjunction with new AGM battery technology introduces regeneration cycles. This means that higher voltage pulses are delivered to the battery after a certain charging and discharging phase in order to provide appropriate phases of regeneration.

Auto Start Stop function shortens idle speed running phases.
On manual gearbox models with the new four cylinder power unit, BMW's Auto Start Stop function provides greater efficiency above all in urban traffic by automatically switching off the engine when it is not required. When the car stops at the traffic lights, for example, the fuel consumption is reduced to zero. As soon as the driver changes to neutral and takes his foot off the clutch, the engine electronics switches off the engine automatically, without a sound. To restart the engine, all the driver has to do is depress the clutch pedal. The engine restarts instantaneously without requiring any further action on the part of the driver.

Gear shift point indicator makes lower consumption driving easier.
New functions incorporated in the new BMW 1 Series Convertible provide ideal conditions for the most effective use of fuel also while driving. All manual shift models are equipped as standard with a gear shift point indicator, which is an illuminated arrow symbol in the instrument cluster which indicates to the driver the ideal point in time to change gear. Based on the driving situation, the engine electronics selects the ideal point in time to change gear in the interests of fuel economy.

Optimised aerodynamics using active air flap control.
Depending on the model, the new BMW 1 Series Convertible has additional features which, without any action by the driver, reduce fuel consumption. Active control of the air flaps in the radiator grille is among these for example. As long as the engine only needs minimum cooling, the flaps remain closed, which improves the aerodynamics and further reduces fuel consumption.

Electric power steering and needs orientated control of auxiliary units.
A further improvement in efficiency is that a number of ancillary units only operate on demand, in order to save energy. The electronic power steering (EPS) included in all models other than the BMW 135i Convertible, only uses energy when steering assistance is really needed; this is exclusively when the steering wheel is being actively moved by the driver. Hence, energy consumption is reduced to zero when driving straight ahead or around steady bends without any additional movement of the steering wheel.

The new electronic refrigerant pump does not operate as a function of engine speed but is temperature controlled and operates only when it is really needed. This also contributes to increased engine efficiency, consuming only about 200 Watt, approximately a tenth of the drive energy required for a conventional pump, which would then also have to be permanently developed. The air conditioning compressor belt drive means that that the air conditioning unit is switched off automatically if the air conditioning is switched off; this again reduces the compressor's drag momentum to a minimum.

BMW 135i Convertible: most powerful straight six cylinder BMW.
The most sporting variant of the new model range is the BMW 135i Convertible, which is powered by the most high performance straight six cylinder in the whole BMW engine programme. The combination of Twin Turbo and High Precision Injection means that the all-aluminium power unit has the worldwide unique technology in this engine category. Maximum output 225 kW/306 hp from 2,979 cc at 5,800 min^{-1} and maximum torque of 400 Nm is maintained throughout a very broad range of engine speeds between 1,300 und 5,000 min^{-1}. An incomparable spontaneous performance, exhilarating acceleration not only from standing and inexhaustible reserves of power define the driving experience which the open two door provides in this engine version. 5.6 seconds are enough for the BMW 135i Convertible to accelerate from 0 to 100 kmph. Its top speed is limited to 250 kmph/155 mph by the engine electronics. This puts the top model in the circle of top calibre sports cars, where it also stands out for its favourable fuel efficiency.

The unsurpassed economies of this performance class are not only contributed to by the efficiency promoting brake energy regeneration and change point indicator but also the charger principle Twin Turbo as well as the petrol direct injection High Precision Injection. The BMW 135i Convertible engine is the first and only available straight six cylinder petrol with Twin Turbo charge engine in this vehicle segment. Using the Twin Turbo technology to improve performance and torque has proved to be a particularly efficient alternative to increasing cubic capacity with the considerable increased weight implications. The design principle of these two turbo chargers, each supplying three cylinders with compressed air, produces an unsurpassed spontaneity when accelerating. The typical turbo hole in the traditional type of turbo engines – the time lapse until the charger cuts in with its performance enhancing effect – no longer exists. In addition the engine has typical BMW straight six cylinder high revving properties. It is comparable to a much larger naturally aspirated engine in its performance characteristic, the weight equipped with an all aluminium crankcase is however much less.

The High Precision Injection has the key function in the concept for the best possible efficient use of fuel. The second generation petrol direct injection operates with injectors which are located in the cylinder head immediately next to the spark plugs and feed the fuel into the combustion chambers at a pressure of 200 bar. This form of construction ensures an extremely precise dosing of the fuel. The system makes up to 200 injections per second possible. The BMW 135i Convertible power unit shows a clear fuel consumption advantage compared to a turbo engine with suction pipe injection.

In addition to the outstanding engine performance, the BMW 135i Convertible has a number of further standard special features, which mark its unique drive characteristics. Besides the differentiation in the interior as a result of the modified M Aerodynamics Package there is the M Sports Suspension, an individual setting of the drive stability control known as DSC (Dynamic Stability Control), an electronically controlled locking function for the differential, a model specific direct control map for the Servotronic steering support and a spontaneous reaction accelerator control map.

BMW 125i Convertible: naturally aspirated engine alternative in the six cylinder league.

The new BMW 125i Convertible also has a straight six cylinder at work under the engine hood. The aspirated power train mobilises a performance of 160 kW/218 hp at 6,100 min^{-1} and a maximum torque of 270 Nm at 2,500 min^{-1} from a capacity of 2,996 cc. This motorisation makes it possible for the BMW 125i Convertible to have a top speed of 238 kmph/148 mph. The 100 kmph mark from standing is reached in only 6.8 seconds.

At a weight of only 161 kilogram the six cylinder unit provides a contribution to harmonic axle load distribution on the BMW 125i Convertible which is supportive of an agile driving style. The engine is exceptionally light because of its crankcase which consists of a magnesium jacket and an aluminium insert. In addition the cylinder head cover as well as the bedplate is in particularly light magnesium. The light construction camshafts which were specially developed for this straight six cylinder contribute to the weight optimisation.

The fully variable valve control, VALVETRONIC and the on-demand operating electric refrigerant pump are further measures to enhance the efficiency level. This model variant also has brake energy regeneration as a feature for particularly intelligent energy management in the vehicle. Among the competition in its performance class the BMW 125i Convertible achieves in acceleration as well as in fuel consumption the best levels on both counts in the segment. At an average fuel consumption of 8.1 litres per 100 kilometres it offers the sovereignty of the six cylinder in particularly economic form.

BMW 120i Convertible and BMW 118i Convertible: four cylinder in top form.

The engine developers also went for High Precision Injection for the new BMW 1 Series Convertible four cylinder petrol units. The light alloy drive train with 1,995 cc capacity goes to the start with two performance levels. Both models employ the second generation of petrol injection in lean operation, as it is known. This means that the piezoelectric injectors centrally located in the cylinder head fill the combustion chambers in layers with injected fuel at different concentrations. A combustible fuel/air mixture is only ever present immediately next to the spark plug. Immediately after ignition then the surrounding lean mixture layers are consumed by the combustion. This method means an optimum performance yield with decidedly less and in addition precisely dosed fuel is achieved. Both engine variants have aluminium crankcases. The biggest design difference is the use of a shift suction pipe in the higher performance version.

Both BMW 1 Series Convertible four cylinder petrol engine variants attain top marks in the relevant competition field for acceleration capability and economy thanks to comprehensive measures developed by BMW to enhance efficiency. The four cylinder unit on the BMW 120i Convertible produces 125 kW/170 hp at a torque of 6,700 min^{-1}, even at 4,250 min^{-1} it provides a maximum torque of 210 Nm. This gives acceleration from nought to 100 kmph in 8.4 seconds, the top speed is 220 kmph/135 mph.

A performance of 105 kW/143 hp at 6,000 min^{-1} and a maximum torque of 190 Nm at 4,250 min^{-1} also give the second four cylinder engine the best qualification for sporting driving performance. The BMW 118i Convertible has a top speed of 210 kmph/130 mph, nought to 100 kmph acceleration takes just 9.3 seconds.

BMW 120d Convertible: particulate filter standard.

The new BMW 120d Convertible four cylinder turbo diesel develops 30 kW/177 hp at 4,000 min^{-1} from a displacement of 1,995 cc, its maximum torque of 350 Nm lies between 1,750 and 3,000 min^{-1}. A top speed of 222 kmph/138 mph and an acceleration from nought to 100 kmph in 8.1 seconds unites sporting driving performance impressive economy in the new BMW 120d Convertible. In competitive comparison this model is top ranking in its performance class for acceleration and fuel consumption..

The BMW 120d Convertible drive train is equipped with an exhaust gas turbocharger which, thanks to its variable turbine geometry, ensures optimally tuned power distribution at all load ranges. The diesel fuel is introduced in a third generation common rail direct injection system by piezo injectors, which work at a pressure of 1,800 bar. In addition the BMW 120d Convertible has

as standard a comprehensive range of efficiency enhancing measures among which are brake energy regeneration, Auto Start Stop function, shift point indicator, and active air flap control. As representative of the new diesel engine generation, the unit is also fitted as standard with a diesel particulate filter located close to the engine. This ensures optimised emission behaviour and not only with regard to CO_2 levels.

The performance characteristics and the sound insulation in modern diesel units have led to less experienced drivers or drivers who lack familiarity – for example hire cars – hardly notice the difference to petrol engines. The new BMW 120d Convertible is therefore fitted with wrong fuel filling protection, this only permits the use of a diesel pump nozzle. The tank opening on this vehicle has a locking catch which is so constructed that it can only be unlocked by a standardised diesel pump pistol nozzle.

Automatic gears with Steptronic function.
As an alternative to a manual gear box all new BMW 1 Series Convertible engine variants can be combined with six gear automatic transmission as an option. The automatic transmission reduces loss of energy and ensures even shorter reaction and gear shift times using special converter technology. The direct engine connection furthers the dynamic character of the vehicle in the same way as the precision gear selection, whereby several drive stages can be skipped for a shift down as fast as possible if the driver signals that he wants to accelerate particularly quickly by pressing the accelerator down hard.

Thanks to the Steptronic function, the driver can also shift gears manually by using the selector lever on the central console or by shift toggles on the steering wheel. The shift toggles are standard on the BMW 135i Convertible with automatic transmission. They are optional on the BMW 125i Convertible with automatic gears. Independently of the operating mode the automatic gears give the BMW 1 Series Convertible that typical BMW sporting drive feeling. When changing to manual selection on the BMW 135i Convertible a particularly sporting version of the gears is activated, this is ideal support for dynamic acceleration sequences. The unusually short shift times are clearly noticeable by the driver at every gear change. Correspondingly spontaneous movements on the rev. counter dial are further evidence of a particularly spirited acceleration style.

Intricately designed suspension with electric power steering EPS and active steering as option.
The new 1 Series Convertible is a BMW through and through. This includes the motive power being transferred to the road by the rear wheels. The rear axle is a five arm construction reflecting the requirements of the particularly powerful and high torque engines. The rear axle differential

emanates from new generation axle gears presented with the introduction of the 1 Series. Optimised for smooth running, featuring double helical ball bearings for the first time, the final drive runs at an even lower operating temperature, increasing the functionality and service life.

The front axle is built to a level of construction quite unique in the vehicle segment. The double joint spring strut tiebar axle with its anti-roll bar is made largely of aluminium, offering an optimum combination of superior stiffness and low weight in the components. The front axle makes a large contribution to the dynamic and sporting character of the new BMW 1 Series Convertible.

A new development is also represented by electric power steering (EPS) with integrated Servotronic function for speed-related steering assistance. EPS, as a result, offers even greater steering precision and enhanced comfort and reduced fuel consumption at the same time. In contrast to the conventional mechanical/hydraulic systems, the steering assistance is operated by an electric motor operating only on demand.

As an option the BMW 1 Series Convertible can be equipped with the world's only active steering, which provides more precision and steering comfort. While the Servotronic as standard equipment adjusts the steering transmission to the current speed of the car. At lower speeds the same turn of the steering wheel as at higher speeds produces a larger angle of turn. This means that parking requires only a slight turn of the steering wheel and minimum effort is required. At higher speeds holding course is made easier. A superposition gear is responsible for transmitting the steering movement. The steering wheel turn made by the driver is adjusted at different increments, depending on the speed and with the aid of an electric motor via a planetary gear.

Drive dynamics programme for perfect vehicle control.

Standard for the new BMW 1 Series Convertible besides having anti-blocking brakes (ABS) for braking is also the Dynamic Stability Control (DSC). It applies the brakes specifically on individual wheels in particularly demanding situations and reduces engine power in order to prevent the rear end of the car from breaking away (over steer) or the car pushing forward over the front wheels (under steer). DSC operation is matched to the drive dynamic potential of the BMW 1 Series Convertible. By networking with the optional active steering the DSC can also prevent the vehicle breaking away on surfaces with a varying frictional coefficient using specific by counter steering with the appropriate force – for example dry asphalt on the left, on the right wet asphalt (modal split).

A component of the DSC is the Automatic Stability Control (ASC) which prevents drive wheels from spinning when driving away, the Cornering Brake Control (CBC), also fitted as standard stabilises the car whenever necessary when applying the brakes while cornering and Dynamic Traction Control (DTC) which is an optimum drive adjusted mode which can be switched in.
It allows more slip on the drive wheels compared to the basic setting, which means starting away better in deep snow with the wheels only spinning slightly. Besides which the DTC mode allows a still more intensive lateral acceleration up to controlled corner drift. The new BMW 1 Series Convertible DTC system can be completely deactivated by pressing a button.

Electronic controlled differential locking function improves BMW 135i Convertible traction.

To ensure the best possible accelerative force with superior engine output and powerful torque, the new BMW 135i Convertible special improvements for enhanced traction have been developed. The main focus is on promoting a sporting and ambitious style of motoring, when accelerating out of bends or hairpins for example. To ensure enhanced traction in the DSC off mode, that is with DSC completely shut off, an electronically controlled differential lock slows down a spinning drive wheel in a tight bend. This in turn enhances the vehicle's traction without having a negative effect on its steering behaviour.

The BMW 120i Convertible, the BMW 118i Convertible and the BMW 120d Convertible are all equipped with 16 inch wheels; both six cylinder variants have 17 inch alloy wheels as standard. In addition the BMW 135i Convertible has the M Sports suspension and a high performance braking system as standard consisting of 6 plunger fixed callipers on the front axle and 2 plunger fixed calliper brakes on the rear axle, each painted in exclusive grey with BMW in white letters. The coordination of the ASC and DSC driving stability systems is done model specifically, taking into account the particularly sporting character. In addition the top model has a modified accelerator control map, which emphasises more the spontaneous behaviour of the engine reaction.

High level of safety from airbags and rollover bar.

The new BMW 1 Series Convertible safety concept is based first and foremost on the stable and solid body of the whole model series. High strength steel, additional reinforcement and special deformation elements ensure that in serious collisions a large part of the impact energy will be absorbed and be dispersed along defined load paths and therefore kept away from the passenger cell.
Both the crash safety and the drive dynamics benefit from the exceptionally high body rotational damping coefficient. The BMW 1 Series Convertible torsion rigidity values are orientated to the level of extreme driving dynamics and at the same time the safety designed BMW 3 Series Convertible. In addition the new

BMW 1 Series Convertible meets all the legal requirements of the international automobile markets regarding active and passive safety. At the same time it offers optimum qualifications for all relevant worldwide crash tests.

In the interior detailed coordinated restriction and capturing systems controlled by central safety electronics ensure maximum occupant protection at all four seat positions. Four air bags offer optimum protection to the occupants of the new BMW 1 Series Convertible as standard. The front air bags inflate in two stages providing the necessary restraint depending on the intensity of the impact. Side air bags integrated in the front seat backrests inflate in a side-on collision up to head height and reduce the danger of injury to the hip, chest and head areas.

Crash optimised front seats reduce injury risk rear end impacts.
The new BMW 1 Series Convertible is fitted with crash optimised seats as standard. Upholstered head restraints and backrests reduce injury risk to occupants considerably in rear impact on the vehicle.

All seats are equipped with three point automatic belts and head restraints. The seat belt anchors are inside on the driver and front passenger seats and each is firmly attached to the body on the outside. The rear seats are fitted as standard with ISOFIX anchors for child seats. In the case of a frontal collision the foot pedals swing away and the foot supports collapse under load which further reduces the risk of the driver suffering foot injuries.

The new BMW 1 Series Convertible is additionally equipped with a rollover sensor, which continuously captures the vertical and horizontal movements of the vehicle. As soon as the safety electronics registers the danger of the vehicle turning over, two rollover bars are extended in fractions of a second; they are normally stored sunk behind the rear seat head restraints. At the same time the front seat belt tensioners and the head thorax air bags are activated. Further precautions in the case of rolling over are optimised by the stability of the A pillars and the windscreen frame.

The new BMW Series 1 Convertible also has an above average level of active safety and offers detailed fittings which originate in higher vehicle segments. The Bi-Xenon main headlights available as an option as well as the adaptive curve light including directional indicator make the journey in the dark even safer. The combination of these comfort and safety functions is unique in the vehicle segment. The daylight driving light provided in a typical BMW manner by two corona rings per headlight, increases the noticeability of the vehicle in normal and diffuse light situations. The two stage functioning brake lights depending on the amount of braking pressure are a particularly effective warning signal of emergency braking to following vehicles.

Entertainment programme: more variety with AUX-In connector and iPod interface.

The audio systems for the new BMW 1 Series Convertible have available, as an option and as a complement to the standard AUX-In, connection through a USB interface; this offers supreme diversity in entertainment enabling external MP3 players such as the various Apple iPod models to be fully integrated in the vehicle's audio system. Control of the extended entertainment program is through the audio system operating unit or the iDrive, which is installed in the BMW 1 Series Convertible in conjunction with an optional navigation system. This ensures a power supply for the Apple iPod through the vehicle electrical system. There is a practical pocket in the centre armrest which is available as a special option where, in conjunction with the USB interface, an external MP3 player can be housed.

Should a vehicle not be supplied with a navigation system and BMW iDrive, there is as an option of an additional storage box with internal light in the middle of the instrument panel. In addition two cupholders can be added in the central console behind the gear shift or gear selector as is the case. To complement this or as an alternative on request a detachable cupholder is available for the central console.

The iDrive operating system interacting with the central controller enables the driver to configure the simple control of all secondary and comfort functions for communication, climate control, entertainment and navigation conveniently – as an option also by voice entry. The iDrive system is also equipped with programmable favourite buttons enabling the user to retrieve particularly frequently used functions – navigation destinations, radio stations or specific telephone numbers – at the simple touch of a button.

Unusual for a convertible: M Sports Package ex-works.

The new BMW 135i Convertible is already fitted as standard with a modified M Aerodynamics Package. All other model variants can be upgraded in both looks and driving dynamics by means of various components from BMW M GmbH. The M Sports Package for the BMW 1 Series Convertible comprises specially designed front and rear bumpers as well as special side sills and foglamps. Le Mans Blue metallic paintwork is reserved exclusively for models with the M Sports Package.

M Sports Package sports seats are available in fabric/Sensatec upholstery or leather as optional. Further features of the M program for the new BMW 1 Series Convertible include the door cut out trim presenting the M logo, leather steering wheel and the M footrest for the driver's left foot. The gaiters on the gearshift lever and handbrake, as well as the handbrake handle are finished as standard in high quality soft leather. The interior

program is finished off with decorative aluminium strips in glacier silver which emphasises the sporting character of the cockpit.

Available components from BMW M GmbH for the new BMW 1 Series Convertible also include light alloy wheels in two different M designs and each with mixed tyres. As an alternative to 17 inch wheels there are also 18 inch light alloy wheels as an option in conjunction with the M Sports Package. The emphasis of the character of the new BMW 1 Series Convertible is most definitely the most sporting alternative in this vehicle segment.

The BMW 1 Series Convertible – the new entry into the world of premium vehicles.

Irrespective of which engine variant is chosen and the extent of equipment, the BMW 1 Series Convertible offers a unique driving experience in its segment. The road to exclusive driving pleasure in the compact segment in an open premium model has now been paved for the first time. The BMW 1 Series Convertible demonstrates the typical features of BMW marque convertible in concept and design – features which boost its image to fascinating elegance and creating for its occupants an incomparable experience of open driving. The driving pleasure in direct contact with the sun and wind fulfils all expectations which are stirred up by the youthful fresh vibrancy of the design.

The distinctive character of the BMW 1 Series Convertible is further emphasised by equally significant sportive driving typical of the marque. The engines which are available for the newest member of the BMW 1 range, meet the highest demands of all disciplines. The four cylinder petrol and diesel power units combine driving pleasure with unrivalled fuel consumption and emission levels. Both six cylinders combine exemplary efficiency with characteristic quality and balance of the engine and an unequalled performance capability in the compact segment. The high efficiency of all six and four cylinder engines is demonstrated particularly well in that all variants of the BMW 1 Series Convertible in their respective competitive fields bag the best marks not only for acceleration but also for economic use of fuel.

The BMW 1 Series Convertible uses the possibilities which stem from its compact dimensions of its body much more forcefully than any other convertible. In combination with the most sophisticated suspension in the segment a maximum of agility leads to a completely fresh form of the typical BMW pleasure in driving.

Technical Data.
118i, 120i, 125i, 135i.

Body		**BMW 118i**	**BMW 120i**	**BMW 125i**	**BMW 135i**
No of doors/seats		2/4	2/4	2/4	2/4
Length/width/height (unladen)	mm	4360/1748/1411	4360/1748/11411	4360/1748/1411	4360/1748/1411
Wheelbase	mm	2660	2660	2660	2660
Track, front/rear	mm	1484/1517	1480/1513	1474/1507	1474/1507
Ground clearance	mm	140	140	140	140
Turning circle	m	10.7	10.7	10.7	10.7
Tank capacity		53	53	53	53
Cooling system incl heater	ltr	8.4 (9.2[1])	8.4(9.2)	8.2 (8.5)	8.2 (8.5)
Engine oil	ltr	4.25	4.25	6.5	6.5
Transmission fluid	ltr	Lifetime	Lifetime	Lifetime	Lifetime
Final drive fluid	ltr	Lifetime	Lifetime	Lifetime	Lifetime
Weight, unladen, to EU[2]	kg	1480 (1505)	1505 (1535)	1585 (1615)	1675 (1685)
Max load to DIN	kg	440	440	440	440
Max permissible weight	kg	1845 (1870)	1870 (1900)	1950 (1980)	2040 (2050)
Max axle load, front/rear	kg	845/1065	870/1070	910/1095	960/1115
Max trailer load[3]					
braked (12%)/unbraked	kg	1200/670	1200/680	1200/700	–
Max roof load/max trailer down	kg	–	–	–	–
Lug comp capacity ISO 3832	ltr	260-305	260-305	260-305	260-305
Air drag	c_X x A	[4]	0.32 x 2.09	0.33 x 2.09	
Power Unit					
Configuration/no of cyls/valves		R/4/4	R/4/4	R/6/4	R/6/4
Fuel supply		MSD 80.2	MSD 80.2	MSV80	MSD80
Capacity, effective	cm^3	1995	1995	2996	2979
Stroke/bore	mm	90/84	90/84	88/85	89.6/84.0
Compression	:1	12.0	12.0	10.7	10.2
Fuel grade		RON 91–98	RON 91–98	RON 91–98	RON 95–98
Max output	kW/hp	105/143	125/170	160/218	225/306
at	rpm	6000	6700	6100	5800
Max torque	Nm	190	210	270	400
at	rpm	4250	4250	2500–4250	1300–5000
Electrical System					
Battery/installation	Ah/–	90 (70)/luggage comp.	90 (70)/luggage comp.	70/luggage comp.	80/luggage comp.
Alternator	A/W	180/2520	180/2520	180/2520	180/2520
Chassis and Suspension					
Suspension, front		Double-joint tiebar spring strut axle, aluminium			
Suspension, rear		Five-arm axle, lightweight steel			
Brakes, front		Single-piston fixed callipers disc brakes			
Diameter	mm	Vented/292 x 22	Vented/300 x 24	Vented/300 x 24	Vented/338 x 26
Brakes, rear		Single-piston fixed callipers disc brakes			
Diameter	mm	Vented/300 x 20	Vented/300 x 20	Vented/300 x 20	Vented/324 x 22
Driving stability systems		ABS, CBC, ASC, DSC, DTC, DBC			
Steering		Rack-and-pinion steering; 3.0 turns; Electronic Power Steering (EPS)			
Steering ratio, overall	:1	16.0	16.0	16.0	16.0
Gearbox type		6-gear manual gearbox (optional 6-gear automatic gearbox)			
Gear ratios I	:1	4.323 (4.171)	4.323 (4.171)	4.323 (4.065)	4.055 (4.171)
II	:1	2.456 (2.340)	2.456 (2.340)	2.456 (2.371)	2.396 (2.340)
III	:1	1.659 (1.521)	1.659 (1.521)	1.659 (1.551)	1.582 (1.521)
IV	:1	1.230 (1.143)	1.230 (1.143)	1.230 (1.157)	1.192 (1.143)
V	:1	1.000 (0.867)	1.000 (0.867)	1.000 (0.853)	1.000 (0.867)
VI	:1	0.848 (0.691)	0.848 (0.691)	0.848 (0.674)	0.872 (0.691)
R	:1	3.938 (3.403)	3.938 (3.401)	3.938 (3.200)	3.677 (3.403)
Differential ratio	:1	3.45 (3.91)	3.73 (4.1)	3.23 (3.73)	3.08 (3.46)
Tyres, front		195/55 R16 87H RSC	205/55 R16 91V RSC	205/50 R17 89W RSC	205/50 R17 89W RSC
Tyres, rear		195/55 R16 87H RSC	205/55 R16 91V RSC	205/50 R17 89W RSC	225/45 R17 91W RSC
Rims, front		6.5J x 16 steel	7J x 16 steel	7J x 17 light-alloy	7J x 17 light-alloy
Rims, rear		6.5J x 16 steel	7J x 16 steel	7J x 17 light-alloy	7.5 Jx17 light-alloy
Performance					
Power-to-weight ratio to DIN	kg/kW	13.4 (13.6)	11.4 (11.7)	9.4 (9.6)	7.1 (7.2)
Output per litre	kW/ltr	52.6	62.7	53.4	75.5
Acceleration 0–100 km/h	sec	9.3 (10.1)	8.4 (9.0)	6.8 (7.4)	5.6 (5.7)
0–1000 m	sec	30.6 (31.1)	29.3 (29.7)	27.6 (28.1)	25.0 (25.1)
80–120 km/h in 4th/5th gear	sec	9.6/12.5 (–)	8.2/10.6 (–)	7.3/9.2 (–)	5.5/6.5 (–)
Top speed	km/h	210 (208)	220 (218)	238 (236)	250 (250)
Fuel Consumption in EU Cycle					
Urban	ltr/100	[4]	8.9 (9.1)	11.7 (11.6)	[4]
Extra-urban	ltr/100	[4]	5.2 (5.5)	6.0 (6.1)	[4]
Composite	ltr/100	[4]	6.6 (6.8)	8.1	[4]
CO_2	g/km	[4]	158 (163)	195	[4]
Miscellaneous					
Emission category		EU4	EU4	EU4	EU4
Type class category (for Germany)	KH/VK/TK	–	–	–	–

[1] Values in brackets apply to automatic gearbox.
[2] Weight of vehicle in road trim (DIN) plus 75 kg for driver and baggage.
[3] May be increased under certain conditions.
[4] Data not yet available at time of going to press.

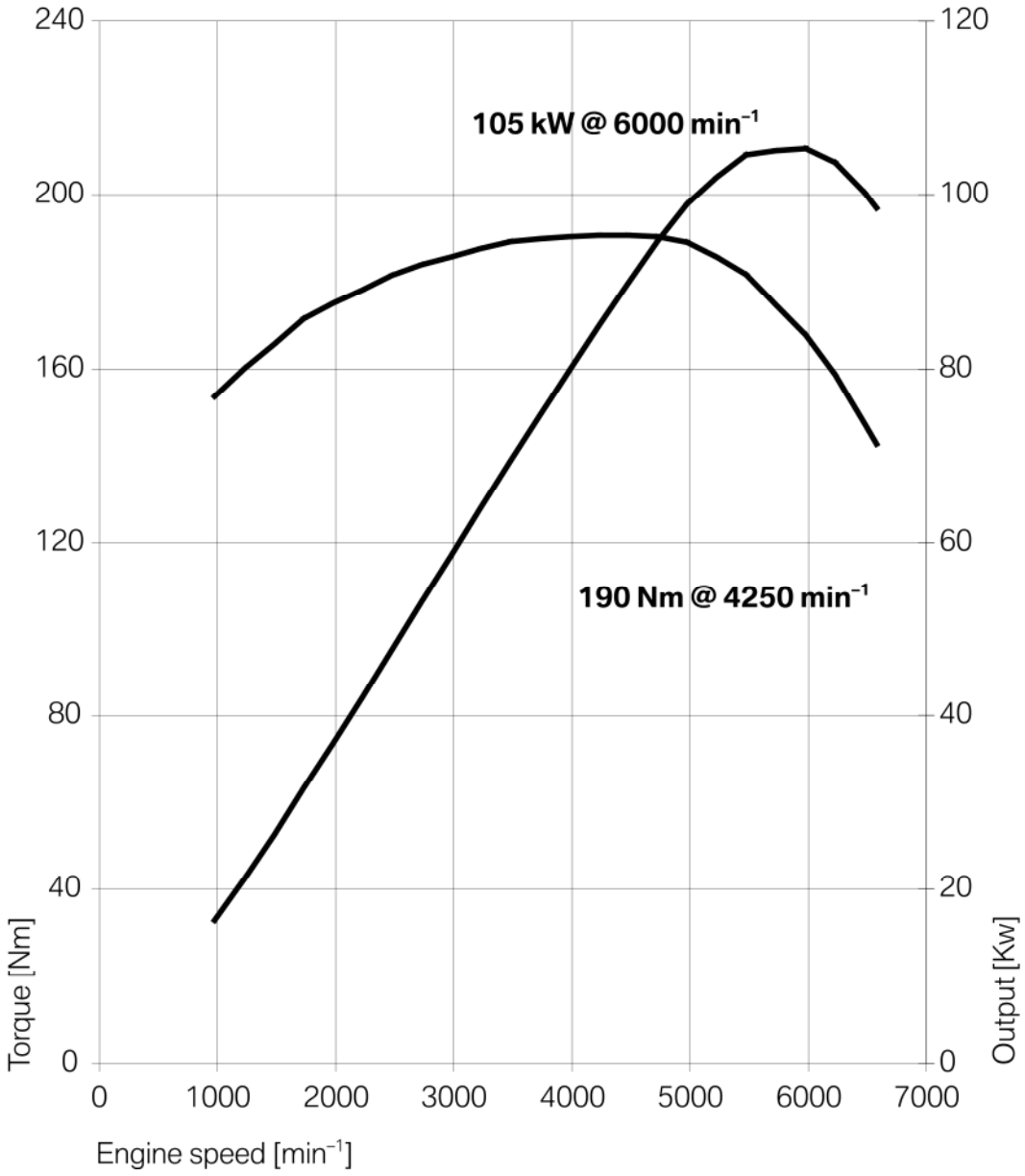
Technical Data.
120d.

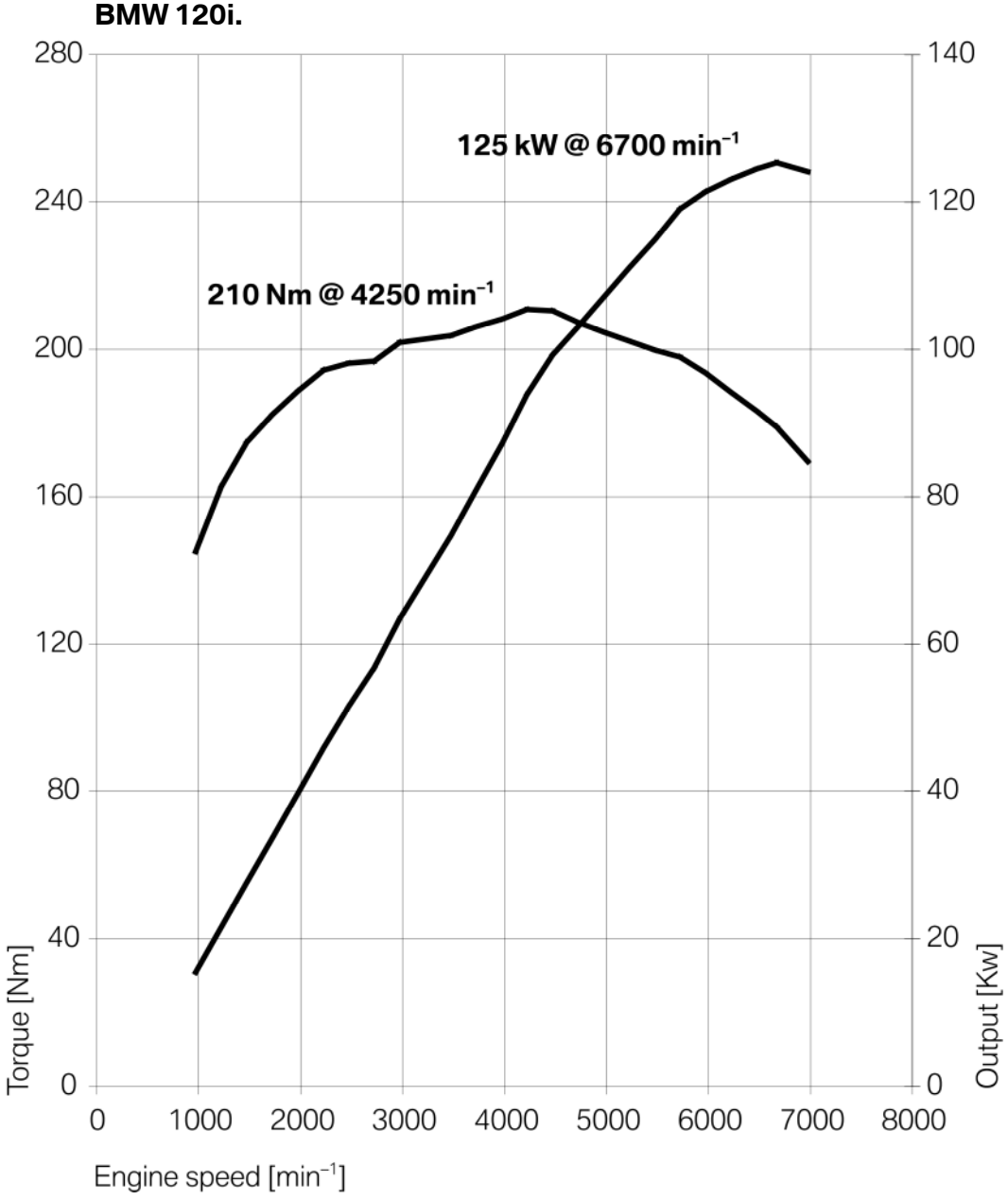
Body		**BMW 120d**
No of doors/seats		2/4
Length/width/height (unladen)	mm	4360/1748/1411
Wheelbase	mm	2660
Track, front/rear	mm	1480/1513
Ground clearance	mm	140
Turning circle	m	10.7
Tank capacity	approx. ltr	51
Cooling system incl heater	ltr	7.2 (7.5[1])
Engine oil	ltr	5.5
Transmission fluid	ltr	Lifetime
Final drive fluid	ltr	Lifetime
Weight, unladen, to EU[2]	kg	1585 (1595)
Max load to DIN	kg	440
Max permissible weight to DIN	kg	1950 (1960)
Max axle load, front/rear	kg	905/1095
Max trailer load[3]		
braked (12%)/unbraked	kg	1200/720
Max roof load/max trailer load	kg	–
Lug comp capacity ISO 3832	ltr	260-305
Air drag	c_X x A	[4]
Power Unit		
Configuration/no of cyls/valves		R/4/4
Fuel supply		DDE 71
Capacity, effective	cm^3	1995
Stroke/bore	mm	90/84
Compression	:1	16.0
Fuel		Diesel
Max output	kW/hp	130/177
at	rpm	4000
Max torque	Nm	350
at	rpm	1750–3000
Electrical System		
Battery/installation	Ah/–	90 (80)/luggage comp
Alternator	A/W	180/2520
Chassis and Suspension		
Suspension, front		Double-joint tiebar spring strut axle, aluminium
Suspension, rear		Five-arm axle, lightweight steel
Brakes, front		Single-piston floating caliper disc brakes
Diameter	mm	Vented/300 x 24
Brakes, rear		Single-piston floating caliper disc brakes
Diameter	mm	Vented/300 x 20
Driving stability systems		ABS, CBC, ASC, DSC, DTC, DBC;
Steering		Rack-and-pinion: 3.0 turns, Electronic Power Steering (EPS)
Steering ratio, overall	:1	16.0
Gearbox type		H wide (6HP19TÜ)
Gear ratios I	:1	5.140 (4.171)
II	:1	2.830 (2.340)
III	:1	1.804 (1.521)
IV	:1	1.257 (1.143)
V	:1	1.0 (0.867)
VI	:1	0.831 (0.691)
R	:1	4.638 (3.403)
Differential ratio	:1	2.64 (3.15)
Tyres, front		205/55 R16 91V RSC
Tyres, rear		205/55 R16 91V RSC
Rims, front		7J x 16 st
Rims, rear		7J x 16 st
Performance		
Power-to-weight ratio to DIN	kg/kW	11.6 (11.7)
Output per litre	kW/ltr	65.2
Acceleration 0–100 km/h	sec	8.1 (8.2)
0–1000 m	sec	29.1 (29.2)
80–120 km/h in 4th gear	sec	6.8/8.5 (–)
Top speed	km/h	222 (220)
Fuel Consumption in EU Cycle		
Urban	ltr/100km	[4]
Extra-urban	ltr/100km	[4]
Composite	ltr/100km	[4]
CO_2	g/km	[4]
Miscellaneous		
Emission category		EU4
Type class category (for Germany)	KH/VK/TK	

[1] Values in brackets apply to automatic gearbox.
[2] Weight of vehicle in road trim (DIN) plus 75 kg for driver and baggage.
[3] May be increased under certain conditions.
[4] Data not yet available at time of going to press.

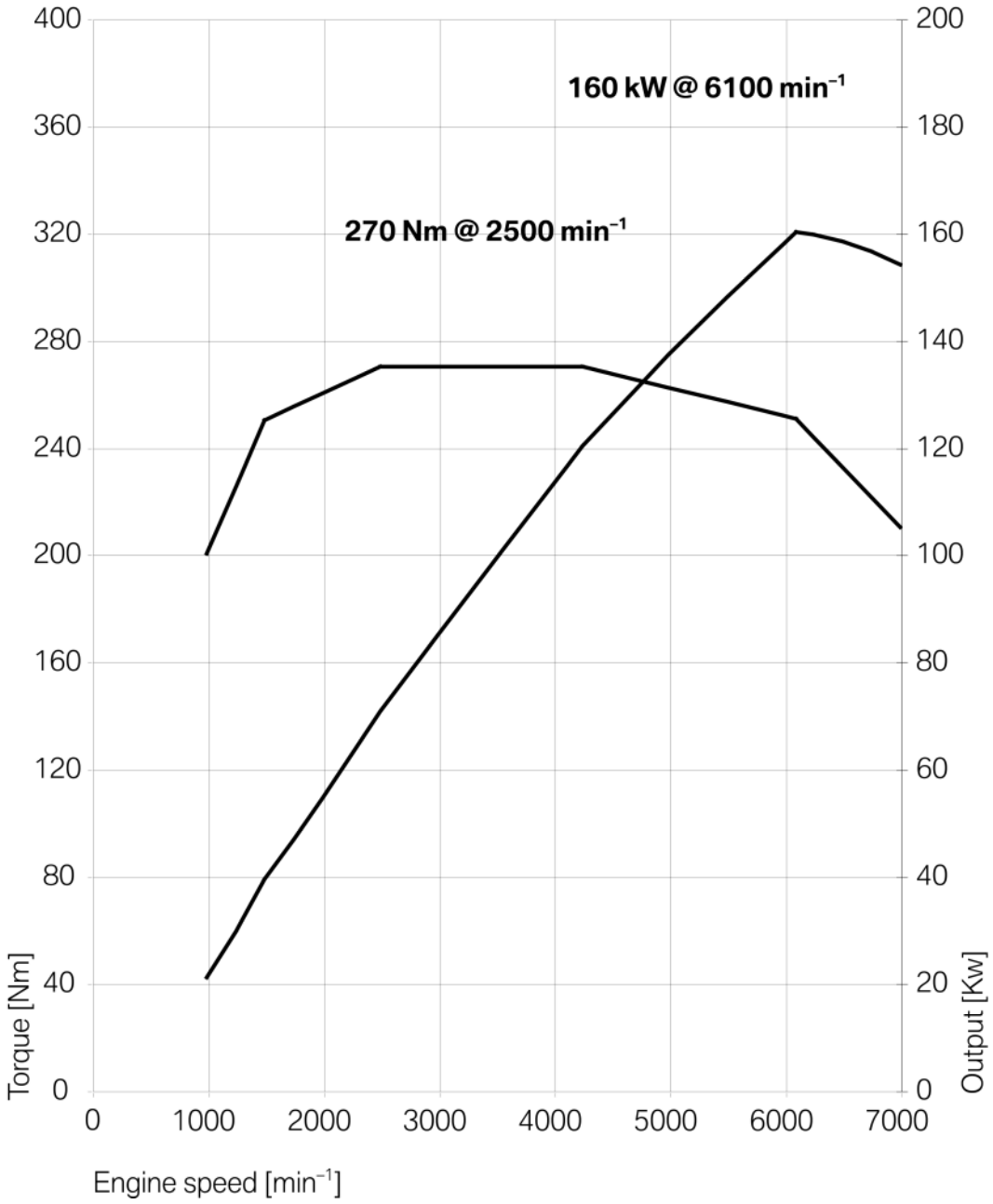
Performance and Torque Diagrams.

BMW 118i.

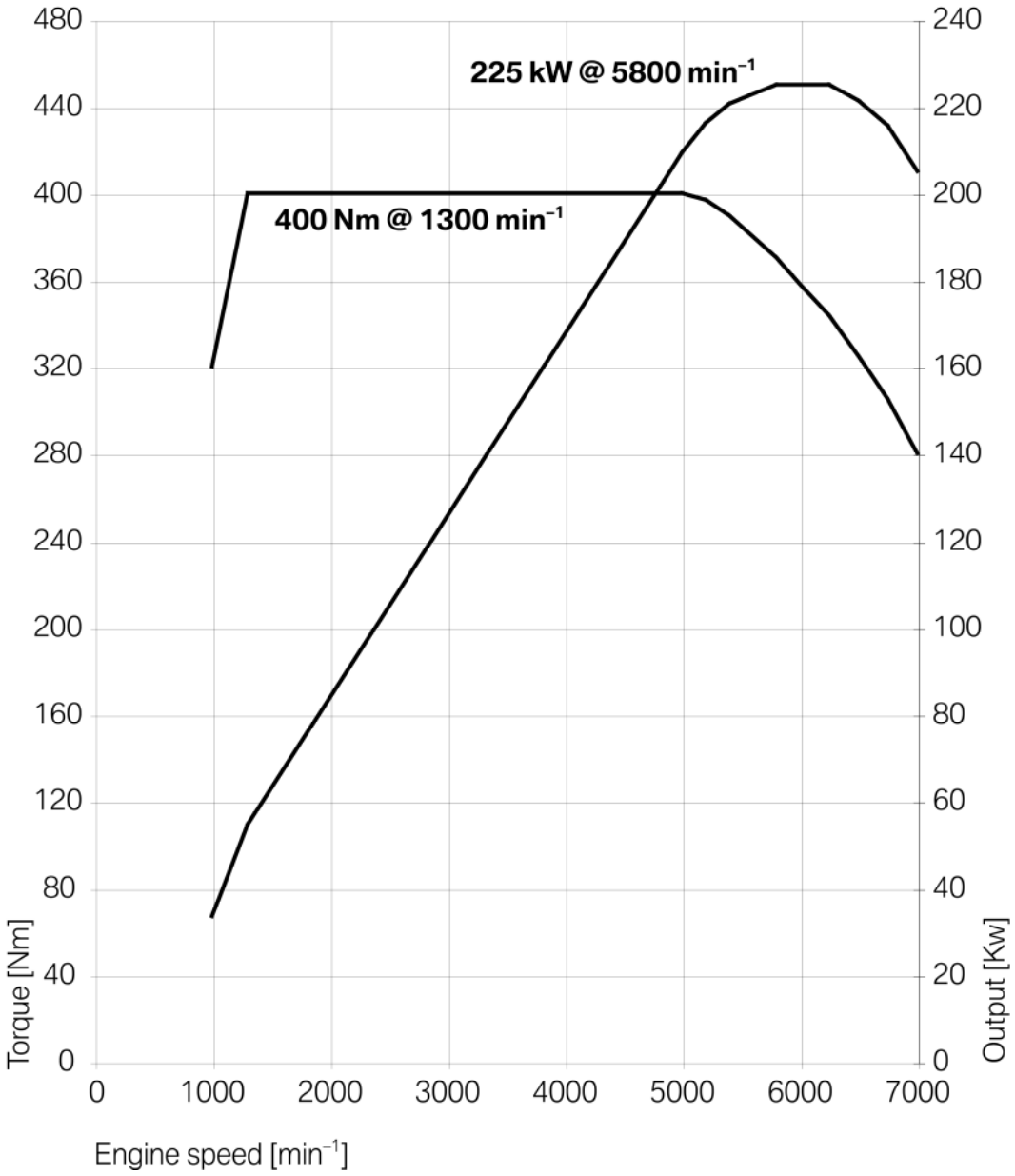


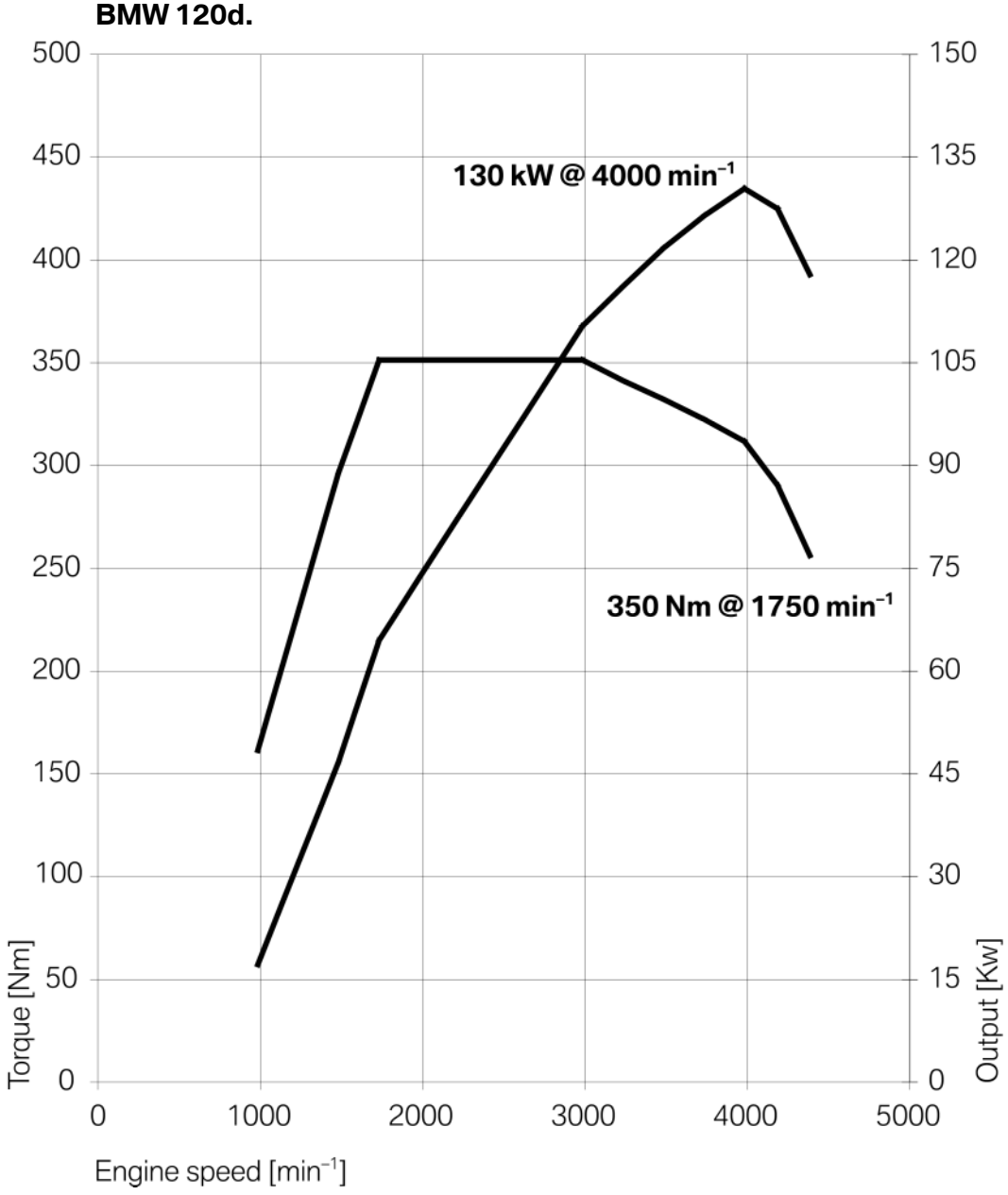

BMW 120i.
125 kW @ 6700 min⁻¹
210 Nm @ 4250 min⁻¹
Torque [Nm]
Output [Kw]
Engine speed [min⁻¹]
280
240
200
160
120
80
40
0
140
120
100
80
60
40
20
0
0
1000
2000
3000
4000
5000
6000
7000
8000

BMW 125i.


160 kW @ 6100 min⁻¹
270 Nm @ 2500 min⁻¹
Torque [Nm]
Output [Kw]
Engine speed [min⁻¹]
0
40
80
120
160
200
240
280
320
360
400
20
60
100
140
180
1000
2000
3000
4000
5000
6000
7000

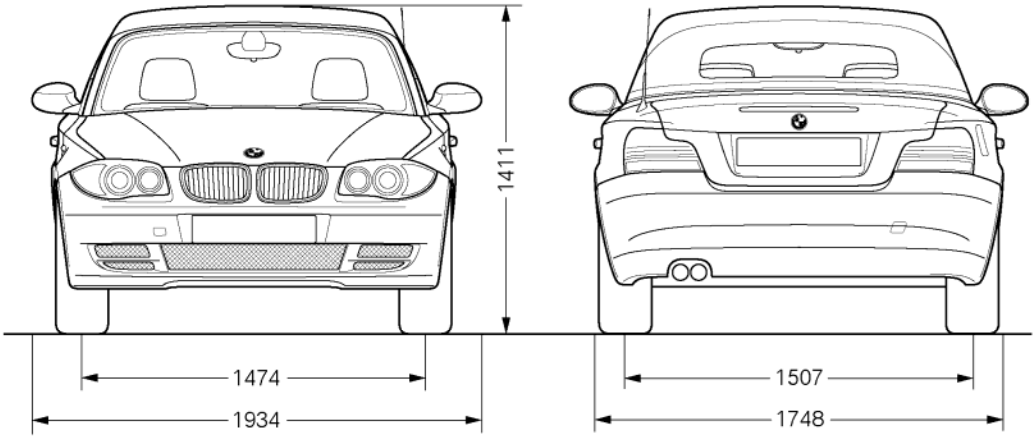
BMW 135i.

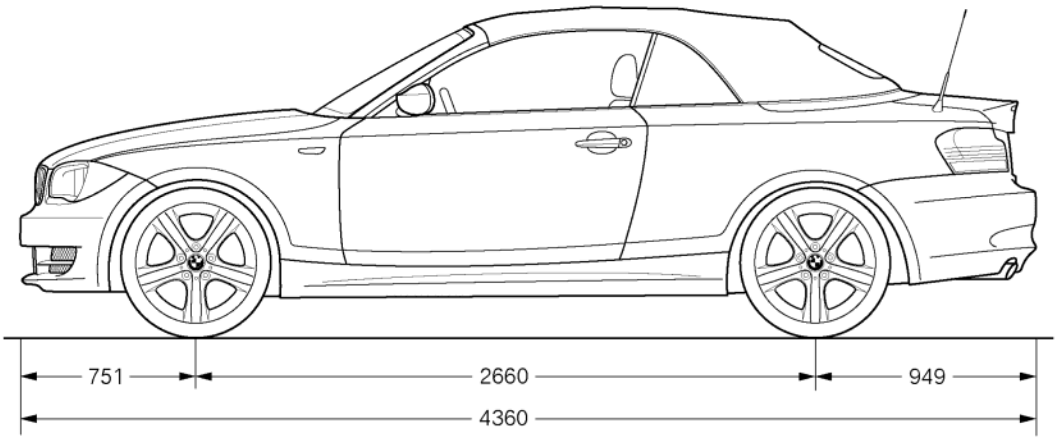

225 kW @ 5800 min⁻¹
400 Nm @ 1300 min⁻¹
Torque [Nm]
Output [Kw]
Engine speed [min⁻¹]
480
440
400
360
320
280
240
200
160
120
80
40
0
240
220
200
180
160
140
120
100
80
60
40
20
0
0
1000
2000
3000
4000
5000
6000
7000

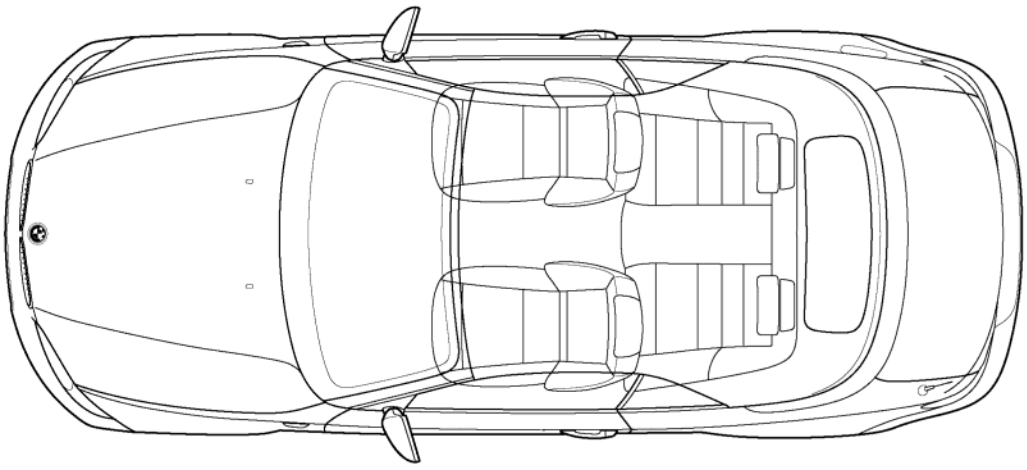

BMW 120d.
130 kW @ 4000 min-1
350 Nm @ 1750 min-1
Torque [Nm]
Output [Kw]
Engine speed [min-1]
500
450
400
350
300
250
200
150
100
50
0
150
135
120
105
90
75
60
45
30
15
0
0
1000
2000
3000
4000
5000

Exterior and Interior Dimensions.

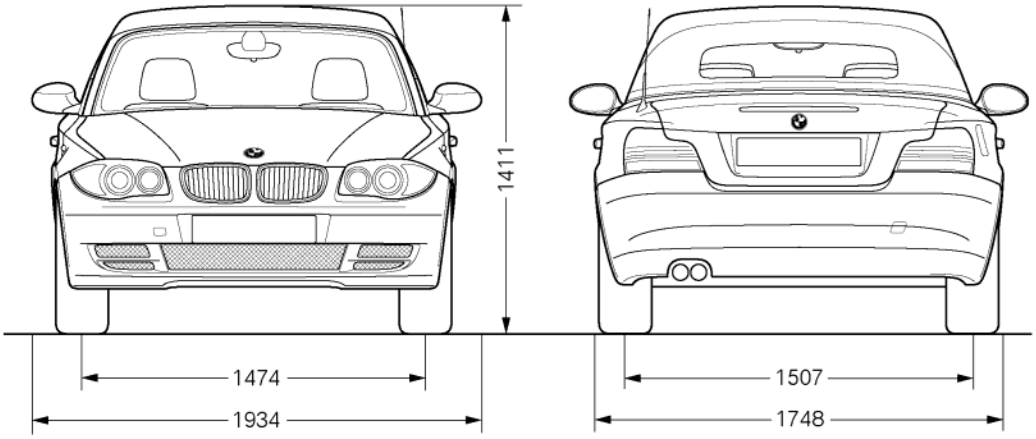
Exterior dimensions closed.

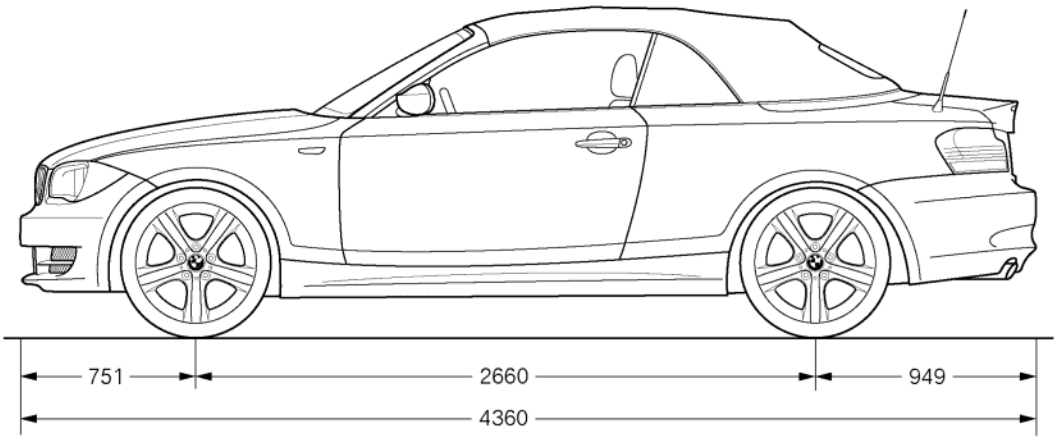


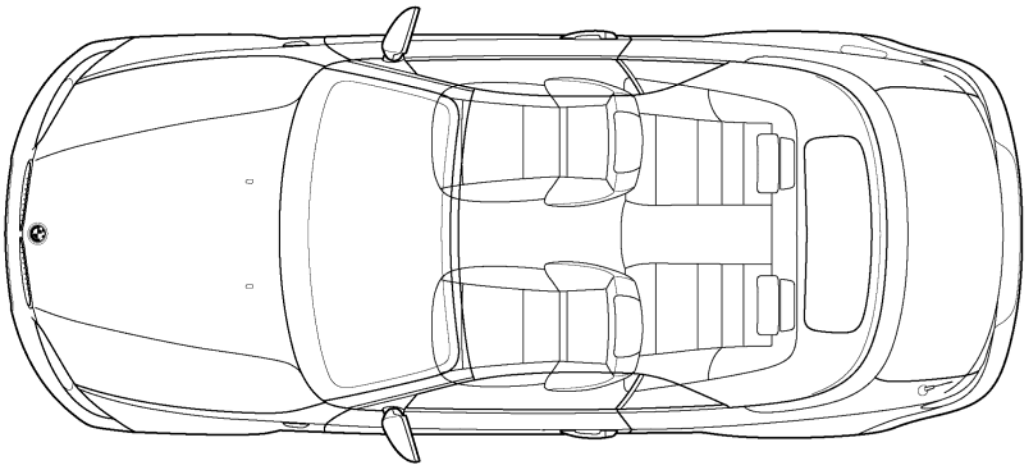




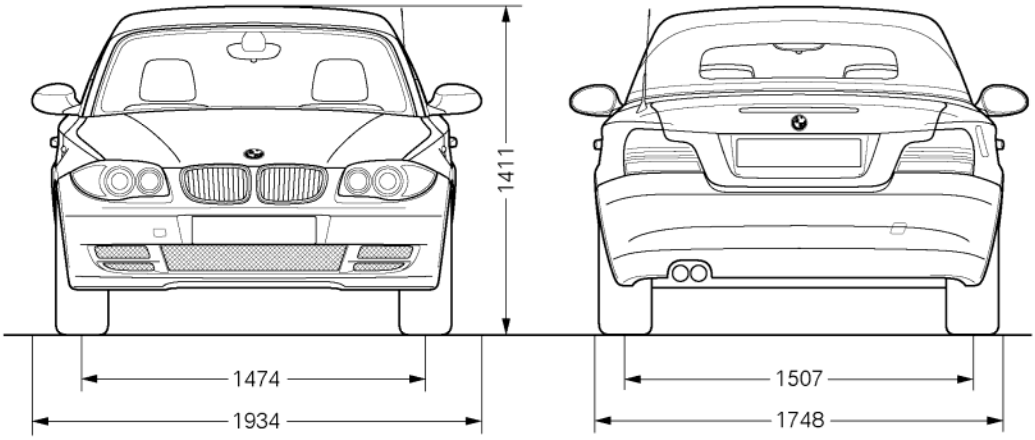
Exterior dimensions opened.

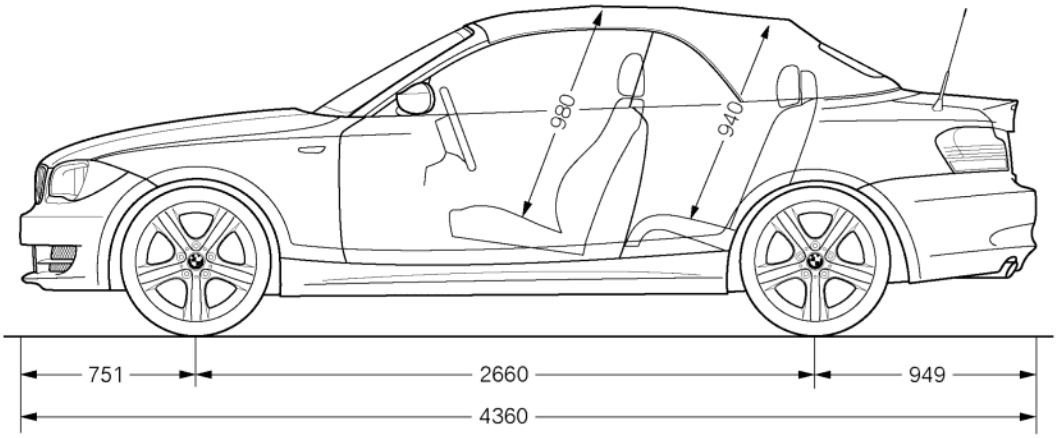


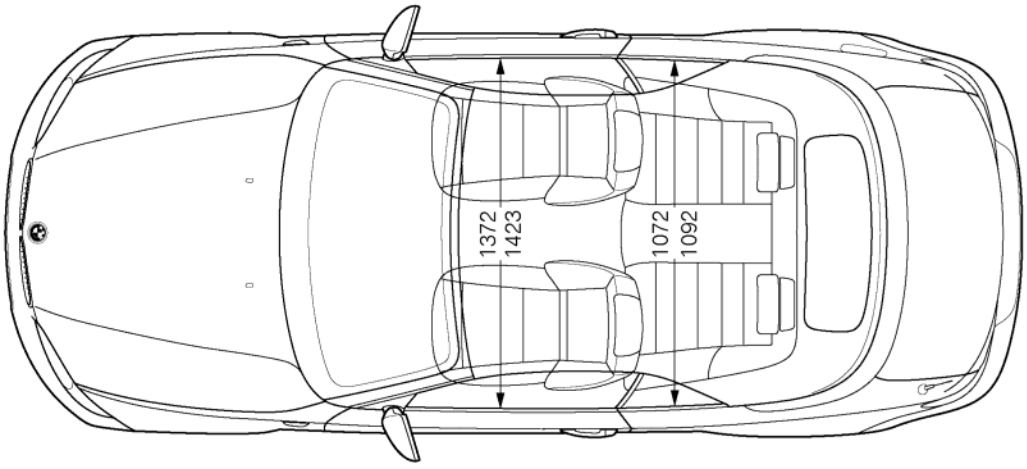




Interior dimensions closed.







Interior dimensions opened.