

# The first-ever BMW i7 Protection, the new BMW 7 Series Protection. Long version.



## **BMW unveils a new generation of protection vehicles in the luxury sedan segment.**

The two models developed on the basis of the new BMW 7 Series succeed in blending an unrivalled protection concept with outstanding levels of ride comfort and spaciousness, exceptionally advanced equipment features and the class-beating dynamic prowess for which the brand is renowned. As the world's first ever protection sedan with an all-electric drive system, the BMW i7 Protection (electric power consumption combined in WLTP cycle: 30.0 kWh/100 km, provisional figure) is a genuine trailblazer. Driven by two powerful electric motors, it meets all the requirements of class VR9 protection without any limitations, as does the new combustion-engine BMW 7 Series Protection (fuel consumption combined in WLTP cycle: 14.6 l/100 km [19.3 mpg imp]; CO<sub>2</sub> emissions: 328 g/km, provisional figures).

The integrated security concept of the new BMW i7 Protection and BMW 7 Series Protection was factored into the development of the new BMW 7 Series range. It centres around the new BMW Protection Core, which is unique worldwide and comprises the model-specific self-supporting body structure made from armour steel. This is then combined with features such as additional armouring for the underbody and roof and armoured glass. Both models will be built at BMW Group Plant Dingolfing in an elaborate "craft manufacturing" process. The two protection vehicles are set to make their public debut at the IAA Mobility 2023 international motor show in Munich, with deliveries to customers requiring special protection commencing in December 2023.

The new protection models offer customised protection from attacks with firearms or explosives for at-risk individuals. They have been classified as offering class VR9 protection based on the internationally recognised official test criteria of Germany's Vereinigung der Prüfstellen für Angriffshemmende Materialien und Konstruktionen (Association of Test Laboratories for Attack-Resistant Materials and Constructions – VPAM, for short). The certification is based, among other things, on the third edition of the guidelines for Bullet Resistant Vehicles (VPAM BRV) with regard to ballistic resistance and the guidelines for Explosive Resistant Vehicles (VPAM ERV, third edition) and PAS 300 with regard

to blast resistance. The glass for the two models even protects against fire from calibre 7.62x54 R ammunition — a threat from the highest civilian resistance class VPAM 10. A partial protection extension is also available as an option for the new BMW 7 Series Protection in defined bodywork areas against fire from VPAM 10 ammunition.

The first all-electric model in its protection category and offered exclusively in Europe, the BMW i7 Protection demonstrates how outstanding qualities in terms of security level, driving dynamics, ride comfort and interior comfort are perfectly compatible with a rigorous focus on sustainability. Its arrival sees the BMW Group once again acting as a pioneer in the field of locally emission-free mobility for individuals requiring special protection. At the IAA Mobility 2021 show, the company presented the BMW Concept iX5 Hydrogen Protection VR6, the first protection vehicle with a hydrogen-powered fuel-cell drive system to be certified anywhere in the world. It showcased the BMW Group's ability to come up with sustainable solutions even in this specialised vehicle segment by applying its standout development expertise.

**Innovative protection concept featuring unique BMW Protection Core.**

The innovative protection concept for BMW's new protection sedans is a product of traditional know-how combined with cutting-edge technology. BMW has now amassed 45 years of experience in the development and production of protection vehicles. The protection concept currently applied was devised as part of the series production development process for the new BMW 7 Series and, more than ever, offers major advantages over armouring a finished vehicle at a later date.

This is largely thanks to the unique BMW Protection Core, which sees the entire supporting structure for a protection sedan's body constructed from armour steel for the first time. Its three-dimensionally engineered elements are all made of exceptionally resistant, hot-formed steel alloys. The BMW Protection Core forms a self-supporting protective cell, which is then combined with protection-spec doors, armouring for the underbody and safety glass.

Special armouring designed to offer maximum protection against explosives in particular has been used for both the roof and underbody of the two protection sedans. This means the occupants are also protected from drone attacks with explosive charges, for example, and from fragments dispersed by hand grenades on detonation.

Also to be found on the list of standard security features for the BMW 7 Series Protection is a self-sealing fuel tank, with special casing that enables it to seal itself after being hit by a bullet to prevent any loss of fuel.

As part of the certification process, the special protection elements must demonstrate their ability to resist attack by undergoing a demanding procedure. In addition to this, experts from an independent state testing institute conduct firearms and explosive tests on the vehicle. The official inspection and certification of the complete vehicle finally provides confirmation of the all-round protection offered by the holistic concept for the new protection vehicles from BMW.

**Greater spaciousness, lower weight and sharper agility combined with uncompromising occupant protection.**

The structural protection concept achieved with the pioneering BMW Protection Core endows the new BMW i7 Protection and BMW 7 Series Protection with an unrivalled set of characteristics. When seen from the outside, just a few details distinguish the two protection sedans from a regular 7 Series Sedan with the M Sport package. Their discreet and largely inconspicuous appearance on public roads represents an additional safety factor for people requiring protection.

The BMW Protection Core design principle has the added effect of increasing the cabin's spaciousness. Thanks to the fully integrated protection concept, the levels of room and seating comfort in the front and rear hardly differ from those to be found inside a conventional BMW 7 Series Sedan in all key criteria.

The innovative protection concept used for the new BMW i7 Protection and BMW 7 Series Protection has additionally allowed their weight to be optimised compared with predecessor models. Not only does the weight saving result in a considerably higher load-carrying capacity, it also has a particularly positive effect on the protection sedans' handling abilities. The optimised weight combines with the increase in body rigidity (another benefit of the BMW Protection Core) to deliver unrivalled levels of agility. This all translates into extremely precise handling control, excellent cornering dynamics and outstanding figures for acceleration and top speed.

**BMW i7 Protection: outstanding security, zero tailpipe emissions and no compromises.**

The BMW i7 Protection brings the all-electric mobility experience to the protection vehicle segment for the first time. Individuals requiring special protection are therefore able to choose a vehicle that requires no compromises to be made in terms of either security or sustainable drive technology.

The locally emission-free powertrain on board the BMW i7 Protection comprises one electric motor at the front axle and another at the rear. It uses numerous components taken from the drive system in the brand's most powerful all-electric production model, the BMW i7 M70 xDrive (electric power consumption combined in WLTP cycle: 23.7 – 20.8 kWh/100 km), allowing it to deliver supreme performance. The two electric motors together create an electric all-wheel-drive system with a combined output of up to 400 kW/544 hp and maximum combined torque of 745 Newton metres (549 lb-ft).

The instantaneous power delivery, distribution of power to all four wheels and intelligent networking of all the powertrain and chassis systems guarantee exceptional traction, directional stability and dynamic prowess. The new BMW i7 Protection sprints to 100 km/h (62 mph) from rest in 9.0 seconds, while top speed is electronically limited to 160 km/h (99 mph).

**BMW 7 Series Protection: unwavering protection, superior dynamics.**

The petrol-engined version of the new protection sedan has a latest-generation V8 unit under the bonnet. Its BMW TwinPower Turbo technology includes an upgraded turbocharging system with electrically operated blow-off valve and indirect charge air cooling, along with a cross-bank exhaust manifold. The new 4.4-litre eight-cylinder engine uses 48V mild hybrid technology to optimise power delivery and efficiency.

The new drive system generates maximum output of 390 kW/530 hp and peak torque of 750 Nm (553 lb-ft). The BMW xDrive intelligent all-wheel-drive system directs drive power to all four wheels as required. The new BMW 7 Series Protection combines superior driving dynamics with levels of efficiency that are also unrivalled. It accelerates from 0 to 100 km/h (62 mph) in 6.6 seconds and goes on to reach a top speed of 210 km/h (130 mph).

### **Model-specific chassis technology for assured performance.**

The new BMW i7 Protection and BMW 7 Series Protection come with chassis technology that has been modified and tuned specifically for these models and makes allowance for the additional weight resulting from their special protection features. This produces superbly assured performance in any situation. Thanks to a robust basic construction and the presence of sophisticated chassis systems, passengers in the rear compartment are also able to enjoy exceptional levels of ride comfort. The protection sedans also make their mark with precisely controllable handling, even when they are being driven hard, such as when escaping from an attack.

### **Unique in the segment: Integral Active Steering.**

The new BMW i7 Protection and new BMW 7 Series Protection are the first and only protection vehicles in their segments to be fitted with Integral Active Steering. This rear-wheel steering functionality not only reduces the car's turning circle when manoeuvring, it also increases precision and the dynamic response through quickly taken corners. Another key attribute of Integral Active Steering – which is specified as standard – is how it enhances driving comfort for rear-seat passengers.

### **20-inch light-alloy wheels with exclusive PAX tyres.**

The new BMW i7 Protection and new BMW 7 Series Protection are fitted with 20-inch light-alloy wheels, which represents a standout offering in their segments and enables the use of a particularly powerful braking system.

The model-specific light-alloy wheels in star-spoke design are fitted with tyres – supplied by Michelin in the dimensions 255-740 R510 – that have been specifically developed for the protection sedans. The large diameter of these tyres and the extremely high volume of air they hold compared with rivals enhance ride comfort, while the larger contact area benefits traction and driving stability. The PAX tyres have a runflat ring positioned on the wheel rim which allows the car to continue its journey at up to 80 km/h (50 mph) even in the event of a total loss of pressure.

### **Driver assistance systems with information and warning function.**

In keeping with their status as protection vehicles, the new BMW i7 Protection and new BMW 7 Series Protection are equipped with an extensive selection of driver assistance systems. The functionality of this tech is focused on supporting professional chauffeurs with information and warnings, but without actively intervening to control the vehicle.

The highly advanced sensors developed for the new BMW 7 Series range and all of the cameras available for the luxury sedan are also fitted on the protection vehicles. These provide precise and detailed information on the area around the vehicle in all situations. The requisite data and images are supplied by e.g. the parking view, Panorama View, Remote 3D View and BMW Drive Recorder functions included in the Parking Assistant Plus package. Also on hand are the alert functions of the front-collision warning, Crossroads Warning, Lane Departure Warning and Speed Limit Info systems.

**Extensive comfort-enhancing features with exclusive details.**

In order to optimise visibility out of the new BMW i7 Protection and new BMW 7 Series Protection in low ambient temperatures, an electric heating function for both the windscreen and the front sections of the side windows comes as standard. Model-specific pre-heating is available as an option.

Another item on the options list is a cool box integrated between the rear seats to ensure the on-board drinks supplies are kept cold. Its net capacity of eight litres offers sufficient space for two water bottles and two glasses, which can be cooled to 4 or 10 degrees Celsius as desired.

The standard-fitted Bowers & Wilkins Diamond Surround Sound System, meanwhile, lays on a high-end audio experience. The 1,265-watt digital amplifier, individually adjustable equalizers and 28 speakers combine to deliver a full, even sound for all those on board. The system also includes a pair of exciters integrated into each of the seats, which convert low bass frequencies into noticeable vibrations.

An exclusive convenience feature offered for the first time on a BMW model is motorised assistance for opening and closing the doors, which comes as standard. It is available immediately after unlocking the car and reduces the force required to open or close the armoured doors. Also unique in this segment is a function that enables occupants to close the doors automatically at the touch of a button after climbing in.

Passengers in the second row of seats in the new BMW i7 Protection and new BMW 7 Series Protection benefit from electrically operated roller sunblinds for the windows on both sides. The blinds extend horizontally from the B-pillar towards the C-pillar and offer what is known as a spy position. Here, the sunblind opens by around ten centimetres at the touch of a button to allow a view outside. From this position, passengers have the option of opening or closing the

sunblind fully. A model-specific roller sunblind for the rear window is also included as standard.

**Broad range of options for individualising the exterior and interior.**

The integrated protection concept of the protection sedans and production at BMW Group Plant Dingolfing maximise the scope for customers to put their personal touch on the exterior and interior. Offered as an option alongside the standard illuminated BMW kidney Iconic Glow are the BMW crystal headlights Iconic Glow. The new BMW i7 Protection and new BMW 7 Series Protection can be specified in almost all of the body colours available for the new BMW 7 Series range. These include the BMW Individual paint finishes and BMW Individual special paint finishes. The exterior design options are closely aligned with those available for the standard versions of the cars and allow the new BMW i7 Protection and new BMW 7 Series Protection to maintain a low-profile presence in public areas.

The appointments and design of the interior can likewise be adapted to personal needs and desires at a detail level. Multifunction seats, BMW Individual Merino leather upholstery, and heated and ventilated seats for the front and rear occupants are all part of standard specification. A massage function can be specified for all seats as an option. The optional Executive Lounge includes comfort seats with a reclining function for the rear seat behind the front passenger. The range of optional seat and interior surfaces is also carried over from the richly varied options list for the new BMW 7 Series.

**BMW iDrive with BMW Curved Display and integrated operation of model-specific security functions.**

The new BMW i7 Protection and new BMW 7 Series Protection are equipped with the latest generation of BMW iDrive based on BMW Operating System 8.5. The system is intuitive to use and operates in a way that will be familiar to BMW drivers. The driver can therefore view all the important information on the BMW Curved Display at the right time and in the right place within their direct line of sight. The special functions relevant to occupant protection are also operated via BMW iDrive. They can be activated and controlled in full using the touchscreen capability of the control display.

A camera-based additional interior mirror can be specified as an option. This shows the image feed from the Reversing Assist Camera in the control display's panorama view at all driving speeds and on any kind of

route. The electronic additional interior mirror is unique in the protection vehicles segment in this form.

The standard-fitted intercom system allows the car's occupants to communicate with people on the outside without having to open doors or windows. Key features here are microphones integrated into the exterior mirrors, an outside speaker, the hands-free microphone embedded in the headliner and supplementary speakers in the interior. Added to which, a rod microphone can be fitted as an option in the centre console storage tray to enable effective communication with people outside the car even when the windows are closed.

**Effective protection measures for a variety of attack scenarios.**

With their wide-ranging standard and optional equipment features, the new protection sedans from BMW offer custom-spec protection in attack scenarios of various types. The new BMW i7 Protection and new BMW 7 Series Protection can be tailored precisely to any purpose, with items including a fresh-air supply system, a fire extinguisher with automatic and manual discharge, flashing lights, radio transceivers and flag poles for when the car is on official duty, plus other special customer-specific options.

**Security built in from the start: integrated protection concept, service provided worldwide by trained experts, special driver training.**

The many years of experience amassed by BMW in the manufacture of protection vehicles has enabled the company to achieve outstanding levels of protection with the new BMW i7 Protection and new BMW 7 Series Protection – as, most notably, has the decision to develop these vehicles alongside the standard variants of the new BMW 7 Series. The new BMW i7 Protection and new BMW 7 Series Protection offer built-in security from the factory. Unlike retrofit solutions carried out by an external provider, the integral protection concept of these vehicles ensures not only maximum security under armed attack, but also well-resolved handling and the dynamic responses expected of a BMW in dangerous situations. The development expertise of the world's most successful premium carmaker has produced a wealth of innovative functions that allow people requiring special protection to enjoy an even safer and more secure mobility experience. The smooth integration of the model-specific protection features within the BMW iDrive system helps ensure these features are intuitive, safe and comfortable for the driver to use in any situation.



Customers around the world can take advantage of individual and discreet consultancy arrangements and an array of other services. For example, specific customer requests can be accommodated when it comes to equipping their vehicle with additional protection and/or convenience features. Service and maintenance for the protection sedans are provided by an international network of BMW service outlets, with the work carried out exclusively by trained experts in certified specialist workshops.

BMW also offers special Protection driver training courses. These programmes, which BMW has been hosting for more than 35 years, are offered at various intensity levels depending on the prior knowledge of the participants involved and take place at several locations around the world. The training courses are led by highly qualified experts and their content ranges from comprehensive theory sessions to practical vehicle control exercises and tactical response training.

All figures relating to performance, fuel/electric power consumption and emissions are provisional.

All of the stated model variants, equipment features, technical data and fuel/electric power consumption and emissions figures relate to the offering in the German market. Dimensions and measurements refer to vehicles with basic configuration in Germany. These may vary depending on the items of optional equipment selected.

Official fuel consumption, CO<sub>2</sub> emissions, electric power consumption and electric range figures were determined based on the prescribed measurement procedure in accordance with European Regulation (EC) 2007/715 in the version applicable. Where a range is shown, the WLTP figures take into account the impact of any optional extras.

Only official figures based on the WLTP procedure are available for new models that have been type tested since 01.01.2021. In addition, according to EU Regulation 2022/195, the NEDC values will no longer be included in the EC certificates of conformity as of 01.01.2023. Further information on the WLTP and NEDC measurement procedures can also be found at [www.bmw.de/wltp](http://www.bmw.de/wltp).

Further information on official fuel consumption figures and specific CO<sub>2</sub> emission values of new passenger cars is included in the following guideline: 'Leitfaden über den Kraftstoffverbrauch, die CO<sub>2</sub>-Emissionen und den Stromverbrauch neuer Personenkraftwagen' (Guide to the fuel economy, CO<sub>2</sub> emissions and electric power consumption of new passenger cars), which can be obtained free of charge from all dealerships, from Deutsche Automobil Treuhand GmbH (DAT), Hellmuth-Hirth-Str. 1, 73760 Ostfildern-Scharnhausen and at <https://www.dat.de/co2>.