



# **BMW i8 Concept Spyder.**

## **The BMW i8 Concept Spyder with eDrive is an open-top two-seater embodying a form of personal mobility with equal sporting and emotional appeal.**

Under the banner of its sub-brand BMW i, the BMW Group is developing a range of purpose-built vehicle concepts and complementary mobility services which meet the changing needs of customers and redefine the understanding of personal mobility. As well as adopting intelligent technologies and innovative design, BMW i is pursuing an all-embracing approach defined to a significant degree by sustainability throughout the value chain.

Following the presentation of the BMW i3 Concept and BMW i8 Concept, the BMW Group introduces the BMW i8 Concept Spyder to the mix. This third BMW i model embodies the future of cutting-edge and emotionally appealing mobility concepts. Its sporting design headlines the qualities of an open-top two-seater blending lightness, dynamic capability and efficiency with a very special aesthetic allure.

The combination of intelligent lightweight design and state-of-the-art hybrid technology imbues the BMW i8 Concept Spyder with genuine sports car performance, yet its fuel consumption is no higher than you would expect from a small car.

Among the most eye-catching features of the BMW i8 Concept Spyder are the upward-swivelling, windowless doors and a range of purpose-oriented on-board equipment including electric kickboards stowed under a transparent tailgate. The sports car is based around the innovative LifeDrive architecture, itself underpinned by a lightweight modular construction and the use of high-quality high-tech materials. The BMW i8 Concept Spyder is a plug-in hybrid powered by an eDrive drivetrain combining a high-performance electric motor and petrol combustion engine. The lithium-ion battery supplying the motor with power can be recharged in an extremely short space of time from any domestic power socket. Together, the car's minimised weight, low centre of gravity and finely judged balance, coupled with a combined system output of up to 260 kW (354 hp), promise unbeatable dynamic capability, exceptional efficiency and unbridled driving pleasure.



# BMW i8 Concept Spyder with eDrive – driving pleasure with unbeatable efficiency and dynamics.

Barely a year after the unveiling of the 2+2-seater BMW i8 Concept, BMW i is presenting the second variant of this innovative hybrid sports car, a machine designed to light up the path to compelling and purpose-oriented mobility. Like its Coupe sibling, the emotionally charged BMW i8 Concept Spyder combines intelligent lightweight design with the leading-edge drivetrain technology eDrive, while its open-top two-seater construction delivers an even more intense driving experience. This is a car in which outstanding performance potential goes hand-in-hand with extremely low fuel consumption and emissions.

Compared with the Coupe variant of the BMW i8 Concept, the BMW i8 Concept Spyder has a slightly shorter wheelbase and overall length. With its compact dimensions and distinctive exterior paintwork, the sports car exudes a feeling of dynamism before it so much as turns a wheel, while striking features of its design include upward-swivelling, windowless doors and a transparent glass panel at the rear. Underneath this cover two electric kickboards are stowed, providing a visual showcase for the fun factor in mobility and adding another layer to the car's recreational appeal. Inside, a revised material and colour concept provides an extra dose of sportiness. Like the Coupe, the BMW i8 Concept Spyder with eDrive is a high-performance plug-in hybrid, and it fuses the specific advantages of an electric motor and combustion engine to optimum effect. Exceptional efficiency and dynamic capability are the upshot.

## **Modular LifeDrive architecture offers a preview of the future.**

Like the Coupe, the BMW i8 Concept Spyder is also built around the innovative LifeDrive architecture, a fusion of independent functional units. For example, the carbon-fibre-reinforced plastic (CFRP) Life module gives the car an extremely lightweight passenger cell, while the Drive modules – made primarily from aluminium components – bring together all the car's operational driving functions, such as the powertrain, chassis and safety structure. Impressively extensive use of high-tech materials allows this innovative concept to chart new territory in terms of weight minimisation,

structural rigidity and crash safety. This is good news not only for the car's dynamic performance, but also for its range and fuel economy. Intelligent lightweight design, encompassing the use of innovative materials, has allowed the unavoidable additional weight of the high-output hybrid drivetrain to be cancelled out in full. Plus, the LifeDrive architecture has been carefully adapted to the sports car character of the BMW i8 Concept Spyder. The front and rear axle modules are connected by an "energy tunnel", which houses the hybrid battery. This allows the engineers to give the car a low centre of gravity and ideal balance.

The distinctive two-way split of the LifeDrive concept is also reflected in the car's design, which renders the basic elements of the body clearly distinguishable. Expressive surfaces and precise lines create a harmonious transition from one module into another. This overlap and interlocking of surfaces and lines – "layering" in BMW i speak – is displayed both on the body and in the interior of the new car.

### **Latest interpretation of the BMW i design language.**

The BMW i8 Concept Spyder's emotion-led design vividly spotlights the car's qualities, with lightness, dynamic capability and efficiency highlighted to particularly prominent effect. For example, the two-seater embodies the perfect synthesis of technology and aesthetic appeal, and exudes unbridled driving pleasure even when stationary. Key to creating this impression of sporty dynamics are large body panels, a hunkered-down stance and numerous aerodynamic elements such as contact surfaces, spoiler lips, AirCurtains and aeroflaps. These features substantially reduce the hybrid car's Cd and enhance both efficiency and range.

### **Dynamic front end.**

The front end offers a particularly revealing window into the open-top two-seater's dynamic talent. One defining element is the headlights with pioneering laser light technology, which follow the hallmark BMW i U-shaped design template. A semi-transparent "V" opens out from the front end of the flat bonnet towards the windscreen and beckons the eye to the electric motor below. A spoiler lip positioned on the windscreen frame guides the airflow over the heads of the passengers. And for journeys when the weather cannot quite be trusted, the planned two-section folding roof might well come in handy.

### **Athletic silhouette.**

Short front and rear overhangs and a low-slung silhouette define the side view of the BMW i8 Concept Spyder and underline its athletic character. Alluring lines and forms generate a strong forward-surging stance even before the car powers off the line. The doors, which open by pivoting forwards around the A-pillar axis, further enhance the BMW i8 Concept Spyder's emotional impact. Below the doors, the side skirts create a powerful wedge shape which opens out towards the rear. At the same time, the open-top two-seater cuts a light and flowing figure and appears as if carved from a single mould.

### **Striking rear.**

Like the front end, the rear also sits low to the road. Its headline feature is a transparent cover revealing the two folded electric kickboards accommodated below. Adopting the hallmarks of BMW i design, the kickboards are perfect for relaxed cruising along promenades and paths or around city squares. There can be few more attractive advertisements for individual mobility. A visually imposing rear diffuser, three-dimensional air outlets and the U-shaped rear lights give the BMW i8 Concept Spyder an extremely wide appearance and emphasise its sporting credentials.

### **Functional aesthetics: layering in the interior.**

The interior of the BMW i8 Concept Spyder is defined by three levels showcasing its various functions. As with the car's body, the interlocking of surfaces and lines is also one of the stand-out features of the interior design. The outer layer frames the supporting structure, while the inner "comfort" layer comprises seat surfaces and stowage compartments. The cockpit fills the third "technical" layer, bringing together the instrument panel, steering column and steering wheel with the instrument cluster, central information display and control elements. The prominent driver focus of the cockpit and the low seating position, which adds further depth to the open-top two-seater's credibility, are particularly eye-catching. All the controls are in just the right position and, like the other functional components of the interior, designed to further enliven the driving experience. An 8.8-inch (22.4 cm) screen displays all the relevant driving information in three-dimensional, high-resolution quality.

The colour and materials concept also provides some stand-out touches. The Spyder's interior is defined by a mixture of plastic, carbon and leather, with the

off-white of the outer layer and the bold orange tone of the naturally tanned leather generating a sporting atmosphere rich in contrast. The cockpit and centre console also show slight modifications over the Coupe. The overall effect of the interior is one of quality, purity and emotional appeal.

**Plug-in hybrid:**

**the perfect alliance of dynamic capability and efficiency.**

Like the Coupe, the BMW i8 Concept Spyder with eDrive is a plug-in hybrid combining two different power sources and employing the specific advantages of its electric motor and combustion engine to optimum effect. The hybrid drivetrain's key components gel together with outstanding smoothness, allowing it to offer peerless dynamic capability and maximum efficiency.

In other words, the open-top two-seater produces the performance of an out-and-out sports machine yet posts the fuel economy of a small car.

The 96 kW (131 hp) electric motor on the front axle works in tandem with a turbocharged three-cylinder petrol engine sending 164 kW (223 hp) through the rear wheels. Both units are in-house BMW Group developments and generate an aggregate system output of 260 kW (354 hp) and peak torque of 550 Newton metres. That is enough to accelerate the BMW i8 Concept Spyder from 0 to 100 km/h (62 mph) in five seconds on the way to an electronically governed top speed of 250 km/h (155 mph). Despite this performance, the two-seater burns just three litres of petrol per 100 kilometres (equivalent to fuel economy of 94 mpg imp) in the European test cycle.

The electric motor sources its energy from a lithium-ion battery which can be fully charged from a domestic power socket in less than two hours.

The high-output battery is located in the energy tunnel between the front and rear axle modules in order to keep the car's centre of gravity as low as possible – and therefore to maximise the car's dynamic performance.

The space-saving and well-balanced packaging of this and other drive and chassis components gives the sporting two-seater ideal 50:50 weight distribution.

With its battery fully charged, the BMW i8 Concept Spyder can cover up to 30 kilometres (19 miles) on electric power alone. As such, far from filling in as

a bit-part player, the electric motor plays a role equal to that of the petrol engine. If required, a high-voltage alternator hooked up to the combustion engine generates extra power, which is then stored in the hybrid battery. This range-extending function during the course of a journey allows the two-seater to travel further between charging stations.

Another special feature of the BMW i8 Concept Spyder is the ability to send power through the front, rear or all four wheels at the same time. Intelligent control electronics ensure that the optimum drive configuration is available for the situation at hand. The driver can view the driving mode currently engaged and monitor the activity of the two drive sources on the large information display in the cockpit. Furthermore, the electronic systems ensure maximum energy recuperation under braking or when coasting. All of which means that the driver can enjoy maximum dynamic performance, unbeatable directional stability and minimal consumption and emissions at all times.

**Connectivity: the perfect link between mobile living environments.**

BMW i sums up the idea of mobility geared to the demands of the future and the needs of its customers. To this end, BMW i drivers will have a new generation of driver assistance systems at their disposal which significantly enhance both safety and comfort. For example, the camera-based proactive Collision Warning system, Parking Assistant and Traffic Jam Assistant ensure all on board can enjoy a safe and relaxed journey.

In addition, BMW i is developing an array of innovative connectivity functions which provide a seamless link between its models and their owners' lives outside the car. Remote functions accessed via a smartphone help users to locate their car in large car parks (CarFinder), show nearby charging stations, allow the battery to be charged at pre-set times and inform drivers on the current status of their vehicle. Plus, the battery and interior can be brought up to peak operating temperature before the driver sets off on a journey. The Last Mile Navigation function, meanwhile, assists drivers after they have parked their car, with route instructions transferred directly onto their smartphone directing them along the last leg of their journey on foot – to a museum or restaurant, for example. And the Intermodal Route Planning function effectively integrates the car into the local public transport network and provides information on current parking availability at the driver's destination.

## **Interface design aids intelligent mobility.**

Two large displays inside the BMW i8 Concept Spyder make up the interface between the car, its passengers and the outside world. Positioned alongside the instrument cluster behind the steering wheel, the central information display flags up all relevant information and assists the driver in the use of connectivity applications. A third display shows the automatic climate control settings currently engaged. All the screens display their information in 3D, and the cutting-edge, visually appealing graphics are also impressively clear.

### Instrument cluster.

The instrument cluster displays important driving data using two variable-form ellipses. Positioned alongside the digital speedometer, the efficiency display allows drivers to view how much energy they are currently using – or recovering through the recuperation process. Added to which, the display also contains extra navigation details and information on the car's range when running purely on electric power, its range when powered by the combustion engine alone and its range using both power units in tandem. If the driver switches to energy-saving ECO PRO mode, the display turns blue in colour to signal the shift in functional emphasis, and the ellipses now also vary in form. By the same token, moving into SPORT mode treats the driver to an emotional orange hue. As well as the changes in colour, the displays also provide information tailored to the driving mode selected and to assisting the driver as effectively as possible.

### Central information display.

The central information display in the BMW i8 Concept Spyder makes a key contribution to intelligent mobility. It allows the driver to view the current status of the hybrid system, provides a platform for menu navigation and route guidance, and uses innovative connectivity functions to offer drivers a gateway into their lives outside the car. This ensures drivers remain up to speed at all times on how the combustion engine and electric motor are being used, while also being able to monitor the energy flow within the system.

### Forward-thinking analysis of the driving situation.

The car's power electronics are linked up to intelligent navigation and traffic guidance systems to enable the hybrid drive system to work at maximum efficiency. In this way, information on route profile, speed limits and

unavoidable traffic congestion are incorporated into the calculations of the energy management system so that the hybrid system's operating strategy can be adapted accordingly. For example, proactive charging of the hybrid battery allows the BMW i8 Concept Spyder to negotiate a traffic tailback on the road ahead using electric power alone – and therefore without producing any emissions. In addition, handy displays such as fuel consumption history allow interesting reflections on past journeys and help to optimise the driving style of the individual at the wheel.

Perfectly prepared at all times thanks to diary synchronisation.

Intelligent connectivity functions open the door to a host of other practical solutions when it comes to preparing the BMW i8 Concept Spyder for its daily workload. One example of this is automatic diary synchronisation with the driver's smartphone. The system registers upcoming appointments and, when plugged into a power socket, ensures that the battery is topped up overnight so that the car is ready for action with a fully charged battery the following morning.

### **The BMW i concept.**

BMW i is about the development of visionary vehicles and mobility services, inspiring design, and a new premium perception strongly guided by sustainability. Under the banner of the young sub-brand, the BMW Group is developing purpose-built vehicle concepts which redefine the understanding of personal mobility. Key elements include groundbreaking technologies, intelligent lightweight design and the innovative use of materials, all with the aim of creating vehicles with extremely low weight, the greatest possible range, generous interior space, poised and authoritative driving characteristics, and exceptional safety. The BMW i8 Concept Spyder follows in the tyre tracks of the BMW i3 Concept and BMW i8 Concept Coupe as the third concept car created under the BMW i sub-brand.

Sustainability plays a paramount role in the BMW i concept. It is an issue that runs like a thread throughout the value chain – all the way from purchasing, through development and production to sales and marketing. And when it comes to the efficient manufacturing of its vehicles, BMW i goes a step further still.



The Leipzig production plant will see an additional 70 per cent reduction in water use and 50 per cent drop in energy consumption per vehicle over the years ahead. And the energy that is used will be sourced 100 per cent from renewable sources.

# Specifications.

## BMW i8 Concept Spyder.



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| Length/Height/Width          | L 4480 mm, H 1208 mm, W 1922 mm                          |
| Wheelbase                    | 2650 mm  |
| No. of seats                 | 2  |
| Kerb weight                  | 1630 kg  |
| Top speed                    | 250 km/h (155 mph) electr. governed                      |
| Acceleration                 | 0-100 km/h (62 mph) 5 s<br>80-120 km/h (50-75 mph) 4.0 s |
| System output                | 260 kW / 550 Nm  |
| TwinPower Turbo engine       | 164 kW / 300 Nm  |
| Fuel consumption (EU cycle)  | 3 l/100km / 94 mpg imp                                   |
| eDrive output electric motor | 96 kW  |
| electric range               | approx. 27-30 km (17 – 19 miles)                         |
| battery charge time          | standard: 1.45 h for 100% charge                         |
| Luggage compartment          | approx. 100 litres                                       |