

The BMW i8. Contents.



For Release: **EMBARGO: September 10, 2013**
03:00 Eastern Time

Contact: **Matthew Russell**
BMW Product & Technology Communications Manager
201-307-3783 / matthew.russell@bmwna.com

David J. Buchko
BMW Advanced Powertrain & Heritage Communications
(201) 307-3709 / dave.buchko@bmwna.com

Julian Arguelles
BMW Product & Technology Communications
(201) 307-3755 / julian.ja.arguelles@bmwna.com

1. The BMW i8.	
At a glance.	2
2. The sports car of the future: Concept.	5
3. A vision becomes reality: Design.	11
4. The best of both worlds: Powertrain and driving experience.	15
5. The lightweight route to maximum occupant protection: Body and safety.	21
6. Intelligent connectivity for efficient driving pleasure: BMW ConnectedDrive and 360° ELECTRIC for the BMW i8.	26
7. Technical specifications.	
BMW i8.	31

Note: The technical specifications stated in this media information are provisional. The equipment described refers to specification for the German market.

1. The BMW i8. At a glance.

- World premiere for the BMW i8, the second model from new brand BMW i. First plug-in hybrid vehicle from the BMW Group and world's most forward-looking sports car; revolutionary interpretation of BMW's hallmark driving pleasure; groundbreaking premium character clearly defined in terms of sustainability.
- 2+2-seater with LifeDrive architecture developed specifically for BMW i, aerodynamically groundbreaking body design and visionary interior design deliver an intense driving experience; Life module passenger cell made from carbon-fiber-reinforced plastic (CFRP); drive system technology, high-voltage battery, chassis, and crash and structural functions integrated into the aluminum Drive module; curb weight: 3,285 lbs (1,490 kg); Cd: 0.26; very low center of gravity (below 18 inches/460 millimeters); well-balanced weight distribution.
- Emotion-led visual impression based around established BMW i design language; classical sports car proportions and fresh interpretation of BMW design features; doors open upwards like wings; clean lines, plus surface design (external and internal) based on the layering principle; full-LED headlights as standard, innovative laser headlights – unique worldwide – available as an option where regulations allow.
- Plug-in hybrid system developed and produced by the BMW Group represents the latest development stage of Efficient Dynamics; debut for three-cylinder gasoline engine with BMW TwinPower Turbo technology, displacement: 1.5 liters, output: 170 kW/231 hp, maximum torque: 320 Nm (236 lb-ft); power sent to the rear wheels via a six-speed automatic gearbox; model-specific hybrid synchronous electric motor, output: 96 kW/131 hp, maximum torque: 250 Nm (184 lb-ft); power channeled through the front wheels via a two-stage automatic transmission; lithium-ion high-voltage battery with liquid cooling and usable capacity of 5 kWh.
- First combination of BMW TwinPower Turbo and BMW eDrive technology plus intelligent energy management produce system output of

266 kW/362 hp (max. torque: 570 Nm / 420 lb-ft) and give the BMW i8 the performance characteristics of a pure-bred sports car (0 – 100 km/h / 62 mph in 4.4 seconds) combined with fuel economy and emissions comparable to a small car - EU fuel consumption: 2.5 litres per 100 km / 94 mpg (US); “glued-to-the-road” AWD driving experience with torque distribution geared towards optimized dynamics.

- Driving Experience Control switch and eDrive button allow driver to choose from five driving modes; range of up to 35 kilometers (22 miles) on electric power alone and a top speed of 120 km/h (75 mph); COMFORT mode offers optimum balance between dynamics and efficiency; combined range in everyday conditions: over 500 kilometers (310 miles); SPORT mode with ultra-intense boost function provided by the electric motor; ECO PRO mode can be used in both all-electric mode and hybrid mode.
- Sophisticated chassis technology featuring a double-wishbone front axle and a five-link rear axle; Electric Power Steering; Dynamic Damper Control comes as standard; 20-inch light-alloy wheels are standard.
- Intelligent lightweight construction with elements including a CFRP passenger cell, doors with a CFRP-aluminum structure, an instrument panel with magnesium support, an aluminum chassis and a partition between the passenger compartment and boot made from thin glass; comprehensive safety concept and an ultra-torsionally stiff passenger cell.
- Extensive standard equipment includes the Navigation system Professional with proactive drive system for all-electric driving, fully-digital instrument display, BMW iDrive with freestanding Control Display and leather sports seats; choice of four exterior paint finishes and four interior equipment variants.
- Wide range of BMW ConnectedDrive features: Park Distance Control, cruise control system with braking function, rain sensor and Intelligent Emergency Call function, optional driver assistance package with High Beam Assistant, a rear view camera, Surround View, Speed Limit Info including No Passing Info display, and Collision Warning with pedestrian recognition and braking function; also available are the Head-Up Display, BMW Online Entertainment, Concierge Services, Real Time Traffic Information and mobility services developed specifically for BMW i, e.g. intermodal route guidance as standard.

- Services specifically developed for BMW i as part of the 360° ELECTRIC program: BMW i Charging Station for convenient battery charging at home, ChargeNow card giving customers a cash-free payment option at public charging stations, innovative mobility services such as MyCityWay and ParkatmyHouse; flexible sales concept enables made-to-measure mobility solutions.
- All-embracing sustainability concept running like a thread through the value chain; carbon fiber production and vehicle assembly using 100-per cent renewable electricity; high proportion of recycled materials; use of materials manufactured and treated in an environmentally friendly manner.

2. The sports car of the future: Concept.



BMW i stands for the creation of pure-bred vehicle concepts, sustainability throughout the value chain, complementary mobility services and a fresh understanding of premium defined squarely in terms of sustainability. And now the BMW Group can unveil the BMW i8 – a new, cutting-edge generation of sports car. The second model unveiled by the new BMW i brand combines a plug-in hybrid drive system with a passenger cell made from carbon-fiber-reinforced plastic (CFRP) and an aluminum frame for the combustion engine and electric motor, the battery pack and the suspension. With this revolutionary concept and the emotional appeal of its aerodynamically optimized body design, the 2+2-seater – which was conceived from the outset as a plug-in hybrid – paves the way for an engagingly dynamic and futuristically efficient take on BMW's hallmark driving pleasure. By cementing the brand's new premium character, strongly defined by sustainability, in the sports car segment, the new i8 also demonstrates the broad spread and universal appeal of the BMW i philosophy.

The research and development activities carried out by the BMW Group since 2007 as part of its project i initiative have laid the groundwork for a visionary car conceived with the impact of environmental, economic and social change around the world very much in mind. Alongside its conceptual and technological development work, the company has also conducted field studies looking at the use of pure-electric vehicles in everyday conditions. More than 1,000 people have taken part in the studies, racking up in excess of 32 million kilometers (20 million miles) at the wheel. The knowledge gained as a result has been channeled into the creation of innovative vehicle concepts and mobility solutions.

Breaking new ground: premium cars underpinned by sustainability-led concepts arrive in the sports car segment.

The development of BMW i cars follows a revolutionary approach, a strategy focusing on the creation of premium cars purpose-designed to be powered by purely electric or plug-in hybrid drive systems. This electric drive technology (packaged under the BMW eDrive banner) is therefore a central component of the vehicle concept – in contrast to the “conversion” model, where vehicles are retrofitted with electric drive systems. Characteristic BMW driving dynamics

coupled with emission-free mobility, precise energy flow management, pioneering design, intelligent lightweight construction and production processes that preserve energy and resources come together to mutually complementary effect to form the innovative, sustainability-led premium character of BMW i cars.

The BMW i8 was conceived from the ground up as a plug-in hybrid sports car boasting agile performance attributes and extraordinary efficiency. Its LifeDrive architecture – developed specifically for BMW i – offers the ideal platform for a weight-minimizing construction, low center of gravity and even weight distribution. The combustion engine and electric motor, battery pack, power electronics, chassis components, and structural and crash functions are all arranged within the aluminum Drive module, while the central element of the Life module is the i8's CFRP passenger cell. This structure also allows a considerable degree of design freedom, which has been utilized – within the framework of the design language developed for BMW i – to give the BMW i8 its distinctive appearance.

The perfect balance of performance and fuel consumption: the BMW i8 represents an exciting new landmark in Efficient Dynamics.

The BMW i8 offers a revolutionary and future-focused interpretation of BMW's signature driving pleasure – and in so doing, makes its case as the world's most progressive model in the sports car segment. The plug-in hybrid drive system developed and manufactured by the BMW Group especially for the BMW i8 represents a new stage of evolution in the Efficient Dynamics development strategy.

The BMW Group launched Efficient Dynamics over a decade ago with the aim of significantly enhancing the performance characteristics and efficiency of every new BMW Group model. Efficient Dynamics incorporates both the evolution of existing technology and the use of revolutionary new drive system concepts. For example, efficient vehicle concepts focusing on lightweight design and aerodynamics, dynamic drive systems featuring both BMW TwinPower Turbo technology and BMW eDrive, and intelligent management of energy consumption within the vehicle are applied in various current BMW models. BMW i cars benefit from the introduction of revolutionary new technology which subsequently finds its way into the models produced by the core brands of the BMW Group.

As a world-leading supplier of premium cars and, increasingly, also premium services, the BMW Group is playing an active and defining role in the changing face of personal mobility. And awareness of issues such as resource scarcity, climate

change and creeping urbanization is also growing among the public. The BMW Group's commitment to sustainability has long been a key element of its corporate strategy and is one of the fundamental principles enforced throughout the company's value chain, as independent studies have regularly confirmed. The BMW Group has been named the "world's most sustainable automobile manufacturer" in the Dow Jones Sustainability Index for eight consecutive years.

BMW i8: the trailblazer for a new generation of sports car.

The underlying principle of Efficient Dynamics – more driving pleasure, lower fuel consumption – is expressed with particular purity by the BMW i8. With the performance attributes of a pure-bred sports car and the fuel consumption of a small city model, the first BMW plug-in hybrid vehicle hits heights only attainable through the revolutionary BMW i vehicle concept. And that makes the BMW i8 a trailblazer for a new generation of sports cars, defined not only by their performance characteristics but also by intelligent solutions to the challenges personal mobility will encounter over the years ahead.

Thanks to its revolutionary vehicle concept and intelligent drive system management, the BMW i8 strikes the optimum balance between dynamic ability and efficiency in a variety of driving situations. The output of the engine and electric motor, the capacity of the high-voltage battery, intelligent energy management and the vehicle's overall weight are tailored to form a precisely composed package that defines the unique character of the plug-in hybrid sports car. Its all-electric driving range is sufficient to cover most urban driving requirements, and out of town, the BMW i8 offers impressively sporty performance which is also very efficient thanks to the power-boosting support for the gasoline engine from the electric motor.

Efficiency and driving dynamics alike are optimized by the broad application of lightweight design – from the CFRP passenger cell to the weight-reduced construction of all other components – and mobility services developed specially for BMW i. The all-encompassing approach of the BMW i brand also includes the extensive use of recycled materials, renewable raw materials and naturally treated materials, alongside extremely resource-efficient production methods. This overall concept makes the BMW i8 the world's most forward-looking sports car. It brings together thrilling performance and progressive efficiency. In the process it boosts driving pleasure and sustainability awareness in equal measure.

Sustainability: the reference point for the entire development process.

As part of the development of BMW i cars, sustainability targets are established

and then pursued with the same vigor as cost, weight or quality objectives. This all-embracing approach is reflected both in the selection of materials and in the construction and manufacturing processes, which differ substantially from conventional manufacturing methods in the automotive industry. The low overall weight of the BMW i8 (3,285 lbs/1,490 kilograms) can be credited primarily to a passenger cell made from CFRP. Although it lends a component at least equal rigidity, this extremely lightweight high-tech material is 50 percent lighter than steel and 30 percent lighter than aluminum. The principle of intelligent lightweight design is applied to all the car's components.

The doors are made up of a CFRP inner structure and an aluminum outer skin and weigh 50 percent less than a conventional construction. The intelligent construction of the magnesium instrument panel support brings a weight saving of around 30 percent compared with the BMW 6 Series, for example. In addition, the high structural rigidity of the magnesium support structure gives it a strengthening effect which allows the number of components to be reduced, thereby lowering weight by a further 10 percent. Innovative foam plastic technology used in the air conditioning ducts cuts their weight by 60 percent compared with a conventional solution, while also improving acoustics thanks to its sound-absorbing properties. The fact that the power electronics and electric motor are directly connected reduces the amount of wiring required, while partial use of aluminum wiring enables further weight reductions.

The BMW i8 is also the world's first volume-produced vehicle to be equipped with chemically hardened thin glass. This innovative technology, so far used mainly in smartphone manufacturing, lends the material impressive strength. The partition between the passenger compartment and boot of the BMW i8 consists of two layers of chemically hardened glass, each of which is just 0.7 millimeters thick, with acoustic sheeting sandwiched in between. In addition to excellent acoustic properties, a further advantage of this solution is a weight saving of around 50 percent compared with conventional laminated glass.

As well as weight, the potential for preserving resources is a decisive factor in the choice of materials. The majority of the aluminum used in the BMW i8 is either gained through recycling or produced using renewable energy. Added to which, the BMW Group has developed a globally unique recycling concept for CFRP components, body components and segregated production waste recovered from the manufacturing of CFRP components and reusable materials from accident-damaged and end-of-life vehicles which are either fed back into the production process or used for other applications.

The BMW Group is the world's first carmaker to employ an environmentally friendly process for the treatment of leather. The leather for the surfaces of the seats and the instrument panel is tanned using olive leaf extract. This avoids the creation of environmentally damaging production residue as well as giving the leather a particularly high-quality and natural look. The cattle hide comes exclusively from Germany, Austria and Switzerland, and the natural treatment process takes place in Germany. This keeps distances to the BMW i8 production facility at BMW Plant Leipzig pleasingly short.

The textile materials used in the interior of the BMW i8 for accent strips on the seats and door trim, the roof liner, the floor mats, the body pillar trim and floor covering are made in an innovative recycling process. The polyester granules that serve as the source material are produced from materials including recyclable PET and are combined with 40 percent virgin wool in a special process to create a high-grade cover fabric. The manufacture of the key for the BMW i8 involves another innovative form of raw material production; its casing is made from a biopolymer based on castor beans. The oil gained from the beans is mixed with 30 percent glass fiber to make an extremely high-quality and robust material.

Resource-efficient processes from material production to vehicle assembly.

The extensive use of CFRP is a central element in the revolutionary vehicle concept underpinning the BMW i8, and the BMW Group is also a leader in this area of the production process. The use of CFRP on the scale required for the BMW i models is without parallel in the automotive industry worldwide. The BMW Group has teamed up with its joint venture partner, the SGL Group, to oversee a factory in the US making carbon fiber. The facility is located in Moses Lake, Washington, and represents an integral link in the value chain for the production of BMW i cars. It secures the BMW Group a supply of the high-quality and sustainably produced basic material required for the manufacture of CFRP components. The carbon fibers produced at Moses Lake are made into lightweight laminates at the Wackersdorf Innovation Park in Germany. These are subsequently turned into CFRP parts and components in the press shops at the BMW plants in Landshut and Leipzig.

The energy used to manufacture the carbon fiber at Moses Lake is provided exclusively by locally sourced renewable hydro-electric power, which means it is 100 percent CO₂-free. Highly resource-efficient processes have also been put in place for the other stages of production for BMW i brand cars. The result is a reduction of around 50 percent in energy consumption compared with the

already highly economical average figures across the BMW Group's production network and a drop in water consumption of roughly 70 percent. For example, the energy required for production of BMW i cars at the Leipzig plant comes exclusively from wind power – i.e. it is derived entirely from renewable energy sources. This was the first time that wind turbines had been installed at an automotive manufacturing plant in Germany to provide a directly supply of power to its production halls.

3. A vision becomes reality: Design.



With its ultra-dynamic proportions, elegantly sporty lines, low-slung silhouette and innovative design features, the BMW i8 represents a new generation of sports car. Bringing together hallmark features of the BMW brand with the design language developed especially for BMW i creates a progressive aesthetic which faithfully communicates the performance attributes, efficiency and innovative premium character of the plug-in hybrid sports car.

The launch of the BMW i8 sees the world's first sports car to be developed from the ground up under the banner of sustainability complete its journey from vision to reality. Both the exterior and interior of the emotionally-led 2+2 embody a revolutionary, pioneering take on the The Ultimate Driving Machine. Clean, minimalist lines and homogeneous surfaces defined by a small number of precise edges and function-focused details underline the status of the BMW i8 as the most forward-looking car in its segment.

As the second series-produced BMW i model on the road, the BMW i8 also reveals the versatility of the design language which is establishing itself as an unmistakable signature of BMW i cars. Its design signals lightness, safety, efficiency and pure driving pleasure – stand-out qualities that the BMW i8 plug-in hybrid sports car shares with the BMW i3, its pure-electric sibling conceived for agile and comfortable urban driving.

The key to this versatility is the innovative LifeDrive architecture, which opens up an exceptional degree of freedom for BMW i design. The central element of the Life module is the carbon-fiber-reinforced plastic (CFRP) passenger cell. The Life module is fixed to the aluminum Drive module, which houses all the drive and chassis technology. This distinctive two-way split is reflected on both the outside and the inside of the car by the visible layering and intertwining of different surfaces, with three-dimensional and flowing transitions between the Life module and Drive module accentuating the dynamic appearance of the BMW i8.

A length of 4,689 millimeters (184.6 inches) , width of 1,942 millimeters (76.5 inches) and height of 1,293 millimeters (51 inches) give the BMW i8 typical sports car proportions. Its dynamic character is also reflected in its long bonnet, clearly

visible aerodynamic aids, stretched roofline, short overhangs and long, 2,800-millimeter (110.2 inches) wheelbase. The pioneering combination of sporting ability and efficiency is translated into the design of the 2+2-seater with intoxicating élan – and with the signature BMW i design language to the fore. The car's wide track: 1,644 millimeters (64.8 inches) at the front axle, 1,715 millimeters (67.5 inches) at the rear, completes the powerful dynamic presence generated by the car's proportions.

Exterior design: an aesthetic synthesis of dynamic appeal and pioneering technology.

The design of the BMW i8 body is as groundbreaking as the plug-in hybrid sports car's concept as a whole. Hallmark BMW dynamics, lightweight design and efficiency are all expressed in the car's proportions, lines and surface design. The 2+2-seater is immediately recognizable as a BMW i model and a new-generation sports car.

The structure of overlapping and interlocking surfaces – lent additional emphasis by the car's color concept – also contributes to the unmistakable appearance of the BMW i8. This layering principle allows aerodynamic forms to be wrapped up in a progressively styled package, while powerfully formed wheel arches draw attention to the wide track of the BMW i8. The compact construction distinguishing both the electric motor and combustion engine allows the front and rear sections of the car to be particularly low-slung and thus accentuate the car's dynamically stretched flanks. The scissor-type doors, which open forward and upwards like wings, add extra intrigue to the sports car design of the BMW i8.

A signature feature of the BMW i brand is the "black band". On the BMW i8, it emerges in a "V" shape from the hood and extends back over the roof into the rear section of the car, where it frames the center section of the rear apron. At the front end, the black band is framed by the body-colored apron and fenders, while at the rear it is overlapped by the "floating" roof pillars, which extend over the rear lights. Another element of the standalone BMW i design language is the "stream flow" contour of the side window. On the BMW i8 the stream flow also determines the path travelled by the air between the falling roofline and the character line rising through the rear section of the car's flanks towards the rear spoiler lip.

The front view of the BMW i8 exudes sporting ability in its purest form. Large front apron air intakes arranged over several levels generate a powerful feeling of depth. The extremely broad BMW kidney grille stretches over to the slim headlights, accentuating the width of the BMW i8 and its road-focused stance.

The car's full-LED headlights adopt the hallmark U-shape of BMW i models. The dipped and high-beam light is emitted by a lens positioned on the far outer edge of the light units. The three-dimensional design of the light sources lend their appearance a sporty character.

The low-slung stance of the rear end and its horizontal, width-emphasizing lines also provide a clear showcase for the dynamic potential of the BMW i8. The rear is bordered by the sculpted rear wheel arches. The sloping rear window opens high, allowing easy access to the storage compartment located underneath. The rear lights, reflectors and rear diffuser form a single visual unit that strengthens the car's already powerful appearance. Like the headlights, the intricately designed rear light clusters also feature the characteristic BMW i U-shaped design. The directional indicators are integrated above the rear lights into the descending roofline. All of the exterior lights on the BMW i8 are LEDs.

Visible efficiency: aerodynamic optimization on a detailed level.

The BMW i8 boasts a drag coefficient (Cd) of 0.26 and a fine aerodynamic balance. The low-slung hood, almost totally blanked off kidney grille, Air Curtains in the front apron, sealed underbody, contoured side skirts, "stream flow" lines of the car's flanks, and the air ducts between the rear lights and roof frame allow the air to be channeled extremely effectively as it hits the car.

The large wheels with their bespoke, aerodynamically optimized design also help to quell efficiency-reducing turbulence – and their effect is reinforced by aeroflaps positioned behind the front wheels and ahead of the rear wheels. Precisely defined air flow across all areas of the body provides a balance between air resistance and lift designed to maximize driving dynamics and directional stability.

The paintwork adorning the side body panels and front and rear ends of the BMW i8 can be specified in a choice of four colors, three of which have been created exclusively for BMW i. All the paint finishes provide a striking contrast to the black band. And, depending on the color chosen, the accent surfaces on the side skirts, at the rear and on the BMW kidney grille surround come in BMW i Frozen Blue or Frozen Grey.

Interior design: customary BMW driver focus in a progressive ambience defined by dynamics and lightness.

Future-focused design also dominates the interior of the BMW i8. The driver orientation typical of BMW cockpit design is complemented by progressive elements which highlight the sports car's dynamic flair and light weight. The driver,

front passenger and rear passengers sit low down – in traditional sports car style – in lightweight seats. The standard leather trim extends beyond the seat surfaces to parts of the center console, instrument panel and interior door panels. The use of leather treated with natural substances, including olive leaf extract as a tanning agent, underlines the sustainable character of the BMW i8 alongside its exclusivity and sporting allure. Exposed CFRP sections of the passenger cell visible around the entry apertures when the doors are opened provide a reminder of the low weight of the BMW i8.

The instrument panel of the BMW i8, with its horizontal lines emphasizing the width of the interior and a structure determined by the “layering” principle, creates a light yet powerful impression. The arrangement of the overlapping, three-dimensional segments is complemented by a contrast-rich color scheme. The layering approach also finds its way, through dynamically curving lines, into the design of the center console, which is home to the gearshift lever, the Controller for the iDrive operating system, the start/stop button, the eDrive button and the Driving Experience Control switch. The iDrive system’s Control Display comes in a freestanding 8.8-inch format. A bespoke sports steering wheel with multifunction buttons and the Navigation system are standard in the BMW i8. Also standard is the multifunction instrument display, whose content and presentation formats take their cue from the driving mode selected.

Available as alternatives to the standard Mega trim for the BMW i8 interior are the Giga and Tera Worlds. In standard specification, the contrast between black surfaces in the cockpit and light Carum Grey leather surfaces emphasizes the lightness and sustainability of this vehicle concept. The leather surfaces of the door and side trim are complemented by functional textile highlights made from recycled material. The optional Giga equipment World is available in light or dark versions. The naturally treated leather surfaces feature perforated elements and subtle contrast stitching which underline the superior character of the material and workmanship involved. Painted surface elements on the instrument panel, door trim and center console add the finishing touches to the cutting-edge ambience. The likewise optional Tera equipment World brings a pervasive aura of luxury and sustainability to the interior of the BMW i8. Top-quality leather surfaces combine with textile accents and contrast stitching in BMW i Blue. And when it comes to the color scheme, dark Dalbergia Brown and light Carum Grey provide attractive contrasts. The Tera World also brings high-class paintwork to selected instrument panel and door trim surfaces. The accent ring for the leather steering wheel comes in BMW i Blue in the Tera equipment World and in Satin Silver in the other variants.

4. The best of both worlds: Powertrain and driving experience.



The BMW i8 embodies a revolutionary, future-focused interpretation of the driving pleasure for which BMW is renowned. It was purpose-designed as a plug-in-hybrid sports car offering agile performance and outstanding efficiency. An exceptionally lightweight and aerodynamically optimized body – including a passenger cell made from carbon-fiber-reinforced plastic (CFRP) – plus advanced BMW eDrive drive system technology, a compact, highly turbocharged 1.5-liter gasoline engine with BMW TwinPower Turbo technology and intelligent energy management all come together to create an overall concept that represents a new landmark in the Efficient Dynamics development strategy. The BMW i8 blends the performance of a top-end sports car with fuel economy and emissions levels below even small urban subcompacts. It is based, moreover, around a vehicle architecture that offers the perfect platform for agile handling, thanks to an ultra-low center of gravity and near perfect 50 : 50 weight distribution.

The three-cylinder combustion engine in the BMW i8 develops 170 kW/231 hp and drives the rear wheels, while the 96 kW/131 hp electric motor draws its energy from a lithium-ion battery, which can be charged from a conventional 110 volt power outlet as well as a 220 volt electric vehicle charger, and sends its power to the front axle. This bespoke plug-in hybrid system, developed and produced by the BMW Group, enables a range in everyday driving of up to 35 kilometers (approx. 22 miles) and a top speed of 120 km/h (approx. 75 mph) on electric power alone, coupled with a “glued-to-the-road” all-wheel driving experience headlined by powerful acceleration and a dynamically-biased distribution of power through enthusiastically taken corners. The more powerful of the two power sources drives the rear wheels and uses the electric boost from the hybrid system to deliver hallmark BMW driving pleasure while at the same time offering groundbreaking levels of efficiency. The sprint from 0 to 100 km/h (62 mph) takes just 4.4 seconds, yet average fuel consumption – as calculated in the EU test cycle for plug-in hybrid vehicles – stands at the equivalent of 94 miles per US gallon from launch.

For maximum driving pleasure and efficiency: BMW TwinPower Turbo engine and electric motor developed by the BMW Group.

The plug-in hybrid drive system of the BMW i8, which comprises a BMW TwinPower Turbo engine combined with BMW eDrive technology, offers the best of both worlds: excellent potential for improved efficiency and exciting, sporty driving characteristics. The BMW Group has developed not only the internal combustion engine and electric motor in-house but also the power electronics and the battery. This ensures that all these components offer high product and quality standards, based on the outstanding capabilities of the BMW Group in the field of powertrain research and development.

The revolutionary character of the BMW i8 is emphasized by a further innovation: the use of an internal combustion engine which is making its debut in this model. The BMW i8 is the first BMW production model to be powered by a three-cylinder gasoline engine. This highly turbocharged unit is equipped with latest-generation BMW TwinPower Turbo technology. It is exceptionally compact and develops maximum power of 170 kW/231 hp from its 1.5-litre displacement. The resulting specific output of 113 kW/154 hp per liter of displacement is on a par with other high-performance sports car engines and is the highest of any engine produced by the BMW Group.

The new three-cylinder engine derives its typical characteristics from BMW's inline six-cylinder engines, to which it is closely related and which are noted for their eager power delivery, revving ability and refinement. The three-cylinder's BMW TwinPower Turbo technology comprises a high-performance turbocharging system and direct gasoline injection with high-precision injectors positioned between the valves, along with VALVETRONIC throttle-less load control, which improves efficiency and response thanks to seamlessly variable valve lift control. Like a six-cylinder engine, the three-cylinder unit is free of first and second-order inertial forces. The low roll torque, a typical feature of a three-cylinder design, is further reduced by a balancer shaft, while a multi-stage damper integrated in the automatic transmission ensures very smooth and refined running at low rpm. BMW TwinPower Turbo technology and low internal friction improve both fuel consumption and torque characteristics. Accelerator response is sharp and the three-cylinder unit quickly reaches its maximum torque of 320 Newton meters (236 lb-ft).

The car's second power source is a hybrid synchronous electric motor specially developed and produced by the BMW Group for the BMW i8. The motor develops maximum power of 96 kW/131 hp and produces its maximum torque of

around 250 Newton meters (184 lb-ft) from standstill. Power is instantly available –an advantage of electric motors- from 0 rpm and remains available into the higher load ranges. Credit for the linear power delivery, which extends right up to the high end of the rpm range, goes to a special motor design principle exclusive to BMW i. BMW eDrive technology refines and improves on the principle of the permanently excited synchronous motor with a special arrangement and dimensions for the torque-producing components. This results in a self-magnetizing effect normally confined to reluctance motors. This additional excitation ensures that the electromechanical field generated when current is applied remains stable even at high rpm.

As well as providing a power boost to assist the gasoline engine during acceleration, the electric motor can also power the vehicle by itself. Top speed is then 120 km/h (approx. 75 mph). The BMW i8 has a maximum driving range in this emission-free, virtually soundless, all-electric mode of up to 35 kilometers (approx. 22 miles). The motor derives its energy from the lithium-ion battery which is centrally mounted underneath the floor of the vehicle. This model-specific version of the high-voltage battery was developed and produced by the BMW Group. It has a liquid cooling system, offers a maximum usable capacity of five kilowatt hours and can be recharged from a conventional 110 volt power outlet, at a BMW i charging station, or at a public EV charging station.

The BMW i8's vehicle concept and powertrain control highlight its progressive, revolutionary character. The BMW i8 always achieves the optimal balance between dynamic performance and efficiency, whatever the driving situation. For example, the battery can also be recharged via the electric motor while decelerating. In addition to this, when power demands allow, the high-voltage battery is recharged by the electric motor. The high-voltage starter-generator, responsible for starting the combustion engine, can also be used as a generator to charge the battery, the necessary power being provided by the BMW TwinPower Turbo engine. These various processes help ensure that the BMW i8 always has sufficient energy on board to power the electric drive system. The all-electric driving range is sufficient to cover most urban driving requirements. Out of town, the BMW i8 delivers impressively sporty performance with extreme efficiency, thanks to the electric motor's power-boosting support for the gasoline engine. With such versatility, the BMW i8 belongs to a new generation of sports cars which unites exciting performance with cutting-edge efficiency – to enhance both driving pleasure and the sense for sustainability.

The rear wheels of the BMW i8 are driven by the gasoline engine via a six-speed automatic transmission, while the front wheels receive their power from the electric motor via a two-stage automatic transmission. Combined maximum output of 266 kW/362 hp and combined peak torque of 570 Newton meters (420 lb-ft) provide all-wheel-drive performance which is as dynamic as it is efficient. The BMW i8's intelligent powertrain control system ensures perfect coordination of both power sources. The variable power-sharing between the internal combustion engine and the electric motor makes the driver aware of the sporty temperament of the BMW i8 at all times, while at the same time maximizing the energy efficiency of the overall system. Utilizing both power sources enables a 0 – 100 km/h (62 mph) time of 4.4 seconds. The BMW i8 has an electronically controlled top speed of 250 km/h (155 mph), which can be reached and maintained when the vehicle operates solely on the gasoline engine.

Variable front-rear power splitting in line with changing driving conditions makes for excitingly dynamic cornering. On entering the corner, the power split is biased towards the rear wheels to improve turning precision. For more vigorous acceleration out of the corner, the powertrain controller returns to the default split as soon as the steering angle becomes smaller again.

Five driving modes allow drivers to adjust efficiency and dynamic performance as desired – at the touch of a button.

The BMW i8 offers the driver unusual scope to adjust the drive and suspension settings of the vehicle in order to adapt the driving experience to his or her individual preferences. As well as the electronic gear selector for the automatic transmission, the driver can also use the Driving Experience Control switch – a familiar feature of the latest BMW models – or, exclusively to the BMW i8, the eDrive button. It gives the driver five operating modes to choose from: D for automated gear selection in COMFORT and ECO PRO modes, SPORT mode and eDrive for pure-electric driving – likewise with a choice of COMFORT and ECO PRO mode.

The Driving Experience Control switch on the center console gives drivers a choice of two settings. On starting, COMFORT mode is activated, which offers a balance between sporty performance and fuel efficiency, with unrestricted access to all convenience functions. Alternatively, at the touch of a button, ECO PRO mode can be engaged, which, on the BMW i8 as on other models, supports an efficiency-optimized driving style. The powertrain controller coordinates the cooperation between the gasoline engine and the electric motor for minimal fuel consumption. On overrun, the intelligent energy management system

automatically decides, in line with the driving situation and vehicle status, whether to recuperate braking energy or to coast with the powertrain disengaged. At the same time, ECO PRO mode also programs electrical convenience functions such as the air conditioning, seat heating and heated mirrors to operate at minimum power consumption – but without compromising safety. The everyday driving range of the BMW i8 on a full fuel tank and with a fully charged battery is over 500 kilometers (310 miles) in COMFORT mode.

SPORT mode offers sequential manual gear selection and at the same time switches to very sporty drive and suspension settings. In SPORT mode, the engine and electric motor deliver extra-sharp performance, accelerator response is faster and the power boost from the electric motor is maximized. And to keep the battery topped up, SPORT mode also activates maximum energy recuperation during deceleration and braking. If the battery is being recharged using the car's kinetic energy, the electric motor's generator function switches to a more powerful setting. At the same time, gear change times are shortened and an extra-sporty setting is selected for the standard Dynamic Damper Control and the Electric Power Steering.

The BMW i8's ECO PRO mode can also be used during all-electric operation. The vehicle is then powered solely by the electric motor. Only if the battery charge drops below a given level, or under sudden intense throttle application (kickdown), is the internal combustion engine automatically activated.

Sophisticated chassis technology with Dynamic Damper Control.

The dynamic chassis and suspension technology of the BMW i8 is based on a double-wishbone front axle and a five-link rear axle, whose aluminum components and geometry are specially configured for intelligent weight savings. The Electric Power Steering offers easy maneuvering in town and typical sports car-style high-speed steering precision, combined with particularly low energy consumption. Also standard is Dynamic Damper Control: the electronically operated dampers change their characteristics according to the selected driving mode to deliver the desired vehicle dynamics.

The DSC (Dynamic Stability Control) stability system includes the Anti-lock Braking System (ABS), Cornering Brake Control (CBC), Dynamic Brake Control (DBC), Brake Assist, Brake Standby, Start-Off Assistant, Fading Compensation and the Brake Drying function. The push button-activated Dynamic Traction Control (DTC) system raises the DSC thresholds, allowing some controlled drive

wheel slippage for easier start-off on snow or loose ground, or for extra-dynamic cornering.

CFRP wheels reduce weight in critical areas.

The chassis components of the BMW i8 are defined by their weight-minimized construction. The car's standard 20-inch forged aluminum wheels have an aerodynamically optimized, lightweight design. CFRP wheels developed exclusively for the BMW i8 can be specified as an option in markets where regulations allow them. They allow a further reduction in weight in an area of the car which plays a particularly prominent role when it comes to agility. The use of three-piece wheels made from this extremely lightweight and high-strength material directly reduces unsprung masses and produces a weight saving of three kilograms per wheel.

5. The lightweight route to maximum occupant protection: Body and safety.



The BMW i8 has its own version of the LifeDrive architecture developed for BMW i that gives it a unique range of tools for combining intelligent lightweight design and safety – to the highest standard in each case. The horizontally split LifeDrive architecture consists of two separate, independent modules. The combustion engine and electric motor, battery pack, power electronics, chassis components, and structure and crash functions are arranged together in the aluminum Drive module, while the central element of the Life module is the 2+2-seater's carbon-fiber-reinforced plastic (CFRP) passenger cell. The vehicle structure and materials employed in the i8 represent a pioneering example of automotive construction and reinforce the position of the BMW i8 as the most progressive model in the sports car segment worldwide.

CFRP is the lightest available material that can be used in the construction of a car body without compromising on safety. One of the stand-out characteristics of this high-tech material is its hugely impressive torsional rigidity, yet it is also carries 50 percent less weight than steel and is 30 percent lighter than aluminum. The LifeDrive architecture and high proportion of CFRP and aluminum in the car's construction allow a previously unprecedented dimension in weight optimization. The curb weight of the BMW i8 stands at 1,490 kilograms (3285 lb), and the LifeDrive architecture also has a positive effect on how this weight is distributed. The battery unit is positioned low down in a central position, helping to give the car a low center of gravity and enhance safety accordingly. In fact, the center of gravity of the BMW i8 is less than 18 inches (460 millimeters) from the ground, making it lower than any other current BMW Group model. And this, like the car's near perfect 50 : 50 weight distribution, ensures excellent handling properties.

CFRP passenger cell: flexible in form, extremely strong in crash tests.

The LifeDrive architecture also allows exceptional levels of freedom when it comes to body design. In the case of the BMW i8, the result is an appearance that reflects the car's sporting characteristics, its innovative premium character and its groundbreaking technology. The impressive structural strength of the CFRP passenger cell allows particularly large door apertures, which in turn ensure comfortable access to the rear seats of the BMW i8. The structure of the

distinctive doors, which open forward and upwards like wings, is composed of a CFRP inner structure and an aluminum outer skin. This construction is 50 percent lighter than a conventional equivalent.

In its dry, resin-free state CFRP can be worked almost like a textile, and as such allows a high degree of flexibility in how it is shaped. The composite only gains its rigid, final form after the resin injected into the lattice has hardened. This makes it at least as durable as steel, but it is much more lightweight. The high tear resistance along the length of the fiber also allows CFRP components to be given a high-strength design by following their direction of loading. To this end, the fibers are arranged within the component according to their load characteristics. By overlaying the fiber alignment, components can also be strengthened against load in several different directions. In this way, the components can be given a significantly more efficient and effective design than is possible with any other material that is equally durable in all directions – such as metal. This, in turn, allows further reductions in terms of both material use and weight, leading to another new wave of savings potential. The lower accelerated mass in the event of a crash means that energy-absorbing structures can be scaled back, cutting the weight of the vehicle.

LifeDrive architecture – conceived to maximize occupant protection.

The development of the LifeDrive architecture and the version of it used for the BMW i8 incorporated the latest knowledge from safety and accident research and the requirements of international crash test procedures. The high-strength passenger compartment teams up with the intelligent distribution of forces within the LifeDrive module to provide the cornerstones for optimum occupant protection. Even after the structurally debilitating offset front crash with an impact speed of 64 km/h (40 mph), the extremely rigid material used for the passenger cell maintains an intact survival space for passengers. The crash-activated aluminum structures at the front and rear end of the Drive module provide additional safety.

Impressive rigidity, combined with its ability to absorb an enormous amount of energy, makes CFRP extremely damage-tolerant. Even at high impact speeds it displays barely any deformation. As in a Formula One cockpit, this exceptionally stiff material provides an extremely strong survival space. Less body deformation occurs compared with comparable steel bodies. Furthermore, the doors can be opened without any problem and the interior remains largely free of intrusions.

Rescue scenarios were worked through and checked as part of the development process. In standard cutting tests, the process of rescuing occupants from a BMW i8 involved in an accident was, in various scenarios, even more straightforward than that for conventional vehicles. That is because body components made from CFRP are lighter and can be more easily cut than high-strength steels, for example.

High safety reserves in a side-on impact.

The impressive safety characteristics of CFRP also come to the fore in side impact scenarios. Despite the heavy, in some cases concentrated forces, the material barely sustains a dent, and passengers enjoy unbeatable protection. All of which makes CFRP perfectly suited for use in a vehicle's flanks, where every centimeter of undamaged interior is invaluable. However, there are limits to what CFRP can endure. If the forces applied go beyond the limits of the material's strength, the composite of fiber breaks up into its individual components in a controlled process.

In the Euro NCAP side impact test, in which a pole strikes the side of the vehicle dead center at 32 km/h (20 mph), CFRP again demonstrates its extraordinary energy-absorbing capacity. The Life module absorbs the entire impact with minimal deformation, guaranteeing optimum passenger protection.

The occupant protection concept is rounded off by standard safety equipment – including electronically controlled restraint systems – of the same high standard in terms of scope and effectiveness as that featured in vehicles from all the BMW Group's brands. Front airbags and side airbags integrated into the seat backrests, plus head/curtain airbags for both rows of seats, are all standard, as are three-point inertia-reel seatbelts including belt stoppers, belt tensioners and belt force limiters for all seats.

Optimum protection for the high-voltage battery.

Crash-active aluminum structures in the front and rear sections of the vehicle provide an impressive level of safety for the Drive module. In a front or rear-end collision, these absorb a large proportion of the energy generated. The battery, meanwhile, is mounted centrally in the underbody section of the car to give it the best possible degree of protection. Statistically, this is the area that absorbs the least energy in the event of a crash, and the vehicle shows barely any deformation here as a result.

The high-voltage system is designed to cope with accidents beyond the legal requirements, with the high-voltage battery including features that ensure its safe reaction even in situations such as this. The latest series of tests conducted by the renowned DEKRA E-Mobility Competence Center were extremely extensive – ranging from how a car might catch fire, how the flames might spread and what would be required to extinguish the fire, to the pollution caused by run-off of the water used for fighting the fire. The experts concluded that electric and hybrid cars with lithium-ion drive-system batteries are just as safe as vehicles with conventional drive systems. To ensure maximum safety in such a crash scenario, the high-voltage battery is disconnected from the high-voltage system and the connected components discharged when the passenger restraint systems are triggered.

Repair costs for the BMW i models are normal for their class.

Tests by vehicle insurers and BMW Accident Research show that accidents primarily result in minor damage. In around 90 percent of all recorded accidents involving conventional vehicles, the damage sustained is to the outer skin. The BMW i8 takes account of this and is equipped with thermoplastic body panels.

If a section of the external skin needs to be replaced, this can be carried out quickly and economically. Overall, the accident repair costs are at a comparable level to those for conventional BMW models.

“Cold” repair methods for aluminum parts, time-saving repairs for CFRP components.

Repairs to the aluminum structure of the Drive module (welded as part of the series production process) are carried out using the “cold” methods of bonding and riveting. These methods have been in use successfully in BMW workshops since 2003.

The reparability of the Life module’s CFRP structure was already a priority in the development of the vehicle concept; for example, several repair stages were set out for the side frame. If a damaged side sill needs to be replaced after a side impact, the workshop carries out a visual inspection and damage assessment and then removes only the section in need of repair using a patented milling tool. The required side sill component is manufactured to fit and then installed on the damaged vehicle. The new part is bonded to the separation points using repair elements.

Any authorized BMW i dealer can repair the outer skin. However, due to the product-specific features of the LifeDrive module, there will be repair centers in which specialized employees take care of vehicles with damage to the aluminum or CFRP structure.

Full-LED headlights offer bright, efficient illumination.

The slim headlights of the BMW i8 team up with the BMW kidney grille to form a horizontal unit emphasizing the car's width. The plug-in hybrid sports car is fitted with powerful and energy-efficient full-LED headlights. In their lower section, the light sources are framed by a U-shaped bar into which are integrated the daytime driving lights, sidelights and direction indicators. The intricately designed rear light clusters also feature the U-shape typical of BMW i cars. All of the lights on the BMW i8 are LEDs as standard.

The BMW i8 is the world's first series-produced vehicle to be available as an option with innovative laser headlights in markets where the regulations allow. They generate a pure-white, extremely bright light that is pleasant to the eye. The light is created through the conversion of the beams emitted by tiny laser diodes by means of a fluorescent phosphor material inside the headlight.

Laser lighting is monochromatic, which means that the light waves all have the same length. They also have a constant phase difference. As a result, laser lighting can produce a near-parallel beam with impressive luminance, which gives it an intensity a thousand times greater than that of conventional LEDs. The beam can also be adjusted extremely precisely. At the same time, the further optimized inherent efficiency of laser lighting means that laser headlights have less than half the energy consumption of even LED headlights, which are already very efficient. Laser lighting generates approximately 170 lumens (a photometric unit of light output) per watt, whereas LED lighting generates around 100 lumens per watt.



6. Intelligent connectivity for efficient driving pleasure: BMW ConnectedDrive and 360° ELECTRIC for the BMW i8.

Innovative driver assistance systems and BMW ConnectedDrive mobility services developed specially for BMW i serve to enhance the driving pleasure available on board the BMW i8 and the car's efficiency in equal measure. Intelligent connectivity optimizes comfort, safety and the use of infotainment features while on the move. It also helps the driver to enjoy the performance attributes of the plug-in hybrid sports car to the full, while at the same time keeping energy consumption – in both gasoline and electric form – as low as possible. BMW ConnectedDrive therefore effectively becomes an extension of the Efficient Dynamics strategy. The variety of tools it offers to further improve the balance between driving pleasure and energy consumption is unique worldwide and makes an additional contribution to the progressive character of the BMW i8.

Added to this, an extensive range of products and services from 360° ELECTRIC are available for the BMW i brand's second series-produced model. The 360° ELECTRIC portfolio focuses on home charging, charging at public charging stations, keeping drivers on the road and integration into innovative mobility concepts. As such it promotes the comfortable, reliable and flexible utilization of electric mobility. This package of features also helps to make maximum use of the efficiency potential inherent in the vehicle concept and drive system technology of the BMW i8. Maximizing the use of the electric motor and feeding renewably generated electricity into the high-voltage battery significantly improves the CO₂ rating of the plug-in hybrid sports car.

The BMW i8 is equipped as standard with an integrated SIM card which provides the intelligent connectivity required to use the mobility services from BMW ConnectedDrive. It also introduces navigation services specially developed to enhance electric mobility – such as the Range Assistant with dynamic range map – alongside familiar features, including the Concierge Services information facility, the Intelligent Emergency Call function and the Online Entertainment music-on-demand service. Moreover, drivers can use the BMW i Remote app to share information with their car at any time using their smartphone. For example, they can use their phone to control the charging process for the high-voltage battery and, while that is happening, also oversee the advance preparation of the vehicle before a journey.

Proactive drivetrain management ensures maximum efficiency and an optimum electric driving experience.

Like the vehicle concept – which offers an optimum platform for the broad-spread application of lightweight construction and optimized aerodynamic properties – and the BMW i8's drive system technology, intelligent energy management also plays its part in imbuing the car with its outstanding levels of efficiency. This function controls the interplay between the combustion engine and electric motor with the aim of optimizing the balance between driving pleasure and fuel consumption in everyday use. This allows the BMW i8 to combine the performance of a pure-bred sports car with small car-like fuel consumption and emissions. A bespoke display and control concept and the link-up between the driver, car and outside world provided by BMW ConnectedDrive bolster the efficiency-enhancing effect of the energy management system. At the same time, they make the targeted management of energy flows in the BMW i8 something the driver can experience in considerable depth.

The specially adapted version of the fully digital instrument display fitted in the BMW i8 shows the car's speed and driving status information in a format and color selected to suit the driving mode currently engaged. SPORT mode brings traditional circular instruments for speed and rpm readouts. In COMFORT mode a "power meter" display replaces the rev counter to keep the driver up to speed on what the electric motor is up to, while ECO PRO mode adds an efficiency display, which encourages drivers to maximize fuel efficiency through their use of the accelerator.

The standard Navigation system links up with a version of the proactive drivetrain management system likewise specially developed for the BMW i8. When the route guidance function is activated, the drivetrain management is configured to ensure the electric motor is employed as extensively as possible and as wisely as possible from an efficiency point of view. The system analyses the route in full and sets up the drivetrain management, including energy recuperation strategy, to run on purely electric power over low-speed sections of the journey in particular. In so doing it ensures, for example, that the battery has sufficient capacity to cover the final stage of a longer journey through a built-up area in all-electric mode.

The performance characteristics of the electric motor and the capacity of the high-voltage battery have been set up to allow BMW i8 drivers to meet their urban mobility needs on electric power alone. Special displays in the instrument cluster keep the driver permanently informed of the remaining range (in

kilometers) in all-electric driving mode. The map display function of the Navigation system Professional also contains a dynamic range display which uses a spidergram (range map) to show the area the car can cover on electric power alone. The map view also displays the location of public charging stations, allowing drivers to plan their journeys to incorporate a stop-off to charge the high-voltage battery. This means that additional battery capacity is then available for the remainder of the journey, which can either be used to continue the journey emission-free or to maximize the car's dynamic performance by using the electric motor and combustion engine in tandem.

An all-round solution providing intelligent connectivity: the driver assistance package from BMW ConnectedDrive.

As well as the Navigation system Professional, standard specification for the BMW i8 also features a cruise control system with braking function, a rain sensor including automatic headlight activation, and Park Distance Control (PDC) with sensors at the front and rear of the car. The BMW ConnectedDrive driver assistance package available as an option comprises High Beam Assistant, a rear view camera, Surround View, Speed Limit Info including No Passing Info display, and Collision Warning with pedestrian recognition and braking function.

The standard full-LED headlights of the BMW i8 also feature daytime running light and cornering light functions, the latter illuminating the section of road the car is turning into. High Beam Assistant also helps to optimize visibility during the hours of darkness by assisting the driver in making maximum possible use of the high-beam headlights. The system uses a camera positioned on the windscreen near the rear-view mirror to detect oncoming traffic and vehicles travelling ahead to ensure the headlights dip in good time.

Meanwhile, the BMW i8 adds a rear-view camera and the Surround View system to PDC to ensure safe and comfortable maneuvering. In addition to the rear view camera and the PDC sensors, the Surround View system also uses two cameras in the wing mirrors to go about its work. The data it collects is processed by a central computer which generates an overall view of the car and the area around it. This is then shown in the Control Display from a bird's-eye perspective. The additional Side View system uses a pair of cameras mounted in the front of the car to ensure the driver is able to spot cross-traffic early – for example, when pulling out from tight gateways.

The Speed Limit Info system displays speed and passing restrictions on the car's current route. It also sources the information it requires from the windshield-

mounted camera and checks it against the data from the navigation system. The camera identifies traffic signs at the edge of the road and overhead signs on motorways. Safety in city traffic is further enhanced by Collision Warning with braking function and pedestrian recognition. This system can be used at speeds of up to 60 km/h (37 mph) and initially generates a visual warning in the instrument cluster if there is a danger of collision. If this is not heeded, an urgent warning then prompts the driver to intervene with a flashing version of the symbol and an audible signal. At the same time, the brakes are applied.

The BMW i8 also offers the driver the services of the BMW Head-Up Display which projects important driving data onto the windshield. Information including the car's speed, status alerts from the driver assistance systems, Check Control messages, speed limits and overtaking restrictions can all be displayed in the driver's direct field of vision.

The ConnectedDrive Services opens up an array of internet-based services to the driver. These include access to the BMW Online portal, the Online Entertainment features and the use of apps for further comfort and infotainment functions. The likewise optional Real Time Traffic Information system delivers precise traffic congestion warnings and detour recommendations in real time.

360° ELECTRIC: emission-free driving in unbeatable comfort.

The BMW i8 plug-in hybrid sports car always achieves top marks for efficiency when it starts a journey with its high-voltage battery fully charged. For customers who have the use of a garage or private parking space, BMW i offers bespoke solutions under 360° ELECTRIC which enable the battery pack to be charged at home or at work safely, simply and extremely quickly.

BMW i provides owners with a charging cable to plug into a standard 110 v power outlet and a special charging point (the BMW i Charging Station). As well as supplying and installing the Charging Station, BMW i also checks its installation in customers' homes and provides maintenance, advice and other services. Plugging the car into a standard 110 v power outlet returns the empty high-voltage battery to full charge in 3.5 hours, while using the BMW i Charging Station completes the process in 1.5 hours.

The charging process can be monitored on a graphic display in the instrument cluster of the BMW i8, as well as via the BMW i Remote app on a smartphone. The driver can view the current battery charge level and the electric range possible (in kilometers) with the available energy capacity. Charging can be

initiated either immediately or at a later time – in order to make use of off-peak electricity rates at night, for example. Added to which, charging the battery from the BMW i Charging Station allows the passenger compartment to be prepared in advance for an upcoming journey so that the driver and passengers are greeted by a pleasant onboard temperature without having to use energy from the high-voltage battery to heat or cool the interior.

Its 360° ELECTRIC initiative also sees BMW i backing the use of electricity from renewable sources in other ways, and the brand has joined forces with selected partners to offer a choice of green power solutions in all markets. A strategic alliance between BMW AG and German eco power supplier naturstrom AG will in future give customers in Germany the opportunity to obtain an eco power package for running their BMW i vehicle. The company supplies electricity entirely from renewable sources, with a very high proportion coming from wind power. This means the high-voltage battery of the BMW i8 can be supplied with energy generated with zero CO₂ output.

Thanks to collaboration with car park operators and public charging station providers, BMW i also grants customers highly reliable access to the public charging infrastructure. Together with its partners, BMW i assists the link-up between the vehicle, the driver and the outside world, providing users with comfort-enhancing features – such as the display of available charging stations in the navigation system and on the customer's smartphone, as well as a simple and transparent payment method with the ChargeNow card. This card enables access to charging poles operated by various providers and offers a cashless means of payment.

7. Technical specifications. BMW i8.



BMW i8		
Body		
No. of doors/seats		2 / 4
Length/width/height (unladen)	Mm (in)	4689 (184.6) / 1942 (76.5) / 1293 (51)
Wheelbase	Mm (in)	2800 (110.2)
Weight, unladen (DIN)	Kg (lb)	< 1490 (3285 lb)
Air resistance	C _d	0.26
Drive system		
Technology combustion engine		BMW TwinPower Turbo technology: turbocharger, High Precision Direct Gasoline Injection, VALVETRONIC fully variable valve control
Config/No of cyls/valves		In-line / 3 / 4
Capacity, effective	cm ³	1499
Output	kW/hp	170 / 231
Torque	Nm (lb-ft)	320 (236)
Technology electric motor		BMW eDrive technology: hybrid synchronous motor with power electronics, integrated charging module and generator mode for recuperation
Output	kW/hp	96 / 131
Torque	Nm (lb-ft)	250 (184 lb-ft)
Total system output	kW/hp	266 / 362
Torque	Nm (lb-ft)	570 (420)
High-voltage battery		
Storage technology		Lithium-ion
Driving dynamics		
Drive concept		Hybrid-specific all-wheel drive, combustion engine driving the rear wheels, electric motor driving the front wheels
Tires front/rear		195/50 R20 / 215/45 R20
Wheels front/rear		7J x 20 light-alloy / 7.5J x 20 light-alloy
Transmission		
Type of transmission combustion engine		6-speed automatic
Type of transmission electric motor		Automatic, two-stage
Performance		
Acceleration	0–100 km/h	s
	80–120 km/h	s
Top speed	km/h (mph)	250 (155)
Top speed electric	km/h (mph)	120 (75)
Range electric	Km (miles)	approx 35 (22)
Consumption in EU cycle		
Combined	ltr/100 km (mpg)	2.5 (94)
CO ₂	g/km	59

All Technical data are provisional and based on EU measures.

BMW Group In America

BMW of North America, LLC has been present in the United States since 1975. Rolls-Royce Motor Cars NA, LLC began distributing vehicles in 2003. The BMW Group in the United States has grown to include marketing, sales, and financial service organizations for the BMW brand of motor vehicles, including motorcycles, the MINI brand, and the Rolls-Royce brand of Motor Cars; DesignworksUSA, a strategic design consultancy in California; a technology office in Silicon Valley and various other operations throughout the country. BMW Manufacturing Co., LLC in South Carolina is part of BMW Group's global manufacturing network and is the exclusive manufacturing plant for all X5 and X3 Sports Activity Vehicles and X6 Sports Activity Coupes. The BMW Group sales organization is represented in the U.S. through networks of 338 BMW passenger car and BMW Sports Activity Vehicle centers, 139 BMW motorcycle retailers, 119 MINI passenger car dealers, and 34 Rolls-Royce Motor Car dealers. BMW (US) Holding Corp., the BMW Group's sales headquarters for North America, is located in Woodcliff Lake, New Jersey.

Information about BMW Group products is available to consumers via the Internet at: www.bmwgroupna.com

#

Journalist note: Information about BMW Group and its products in the USA is available to journalists on-line at www.bmwgroupusanews.com and www.press.bmwna.com.

#