

Mercedes-Benz Concept EQA showcar

**Press Information** 

# EQ concept in the compact class

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### The highlights

Key facts

### Mercedes-Benz management comments on the Concept EQA

"Electric initiative is gathering pace"

Short version

### Mercedes-Benz Concept EQA show car

EQ concept in the compact class

Long version

### The design

Bold design statement with breathtaking proportions

#### **Powertrain**

The electric athlete in the compact segment

#### **Services**

Intelligently networked charging solutions

#### **CASE**

Networked strategy

The highlights Page 2

**All-electric and compact:** The Concept EQA is Mercedes-Benz's first all-electric EQ concept vehicle in the compact segment.

**Innovative light technology:** When it comes to the lights, Mercedes-Benz has opted for laser fibers. The spiral-shaped light signet underlines the electric concept, its design evoking the copper windings of an electric motor and the animation visualizing electrical impulses.

**Powerful electric drive:** Two electric motors, with a system output that can be increased to over 200 kW thanks to scalable battery components, and permanent all-wheel drive deliver impressive dynamic performance. The two drive programs offer a choice of individual drive characteristics.

**Real-world range:** In combination with the intelligent Mercedes-Benz operating strategy, the Concept EQA achieves a range of around 400 kilometers, depending on the battery capacity installed.

**Convenient charging:** The Concept EQA can be charged via induction or wallbox and is also ready for rapid charging. The vision for using public charging stations is "seamless charging:" this Mercedes me-based service makes it easy for the customer to charge and pay at different charging stations.

**Electric aesthetic:** The Concept EQA is another example of the logical evolution of the Sensual Purity design idiom: sharp edges and lines have been significantly reduced. The black panel at the front acts as a virtual radiator grille whose look changes according to the drive program.

## "Electric initiative is gathering pace"

"Our electric initiative is gathering pace: by 2022 Mercedes-Benz Cars will have launched more than ten all-electric vehicles on the market. And the Mercedes-Benz Concept EQA proves that we are serious about introducing electric mobility throughout the portfolio."

Dr. Dieter Zetsche, CEO of Daimler AG and Head of Mercedes-Benz Cars

"The progressive vehicle concept of the Concept EQA combines impressive dynamism with a long range that is ideal for day-to-day driving, and is based on an architecture exclusively developed for the battery-electric models."

Ola Källenius, Member of the Board of Management of Daimler AG, Group Research and Mercedes-Benz Cars Development

"With our Concept EQA we have reinterpreted our design philosophy of Sensual Purity and developed the Modern Luxury into a Progressive Luxury for our EQ brand. We eliminated creases and lines and reached the next level of purity. With its stunning proportions, seamless flowing surfaces, combined with stimulating graphics using high tech black panels, it is definitively a bold design statement: this car is simply sexy."

Gorden Wagener, Chief Design Officer, Daimler AG

## EQ concept in the compact class

Stuttgart/Frankfurt. The Mercedes-Benz Concept EQA, which will make its World Premiere at the International Motor Show in Frankfurt (September 2017), demonstrates how the EQ strategy can be introduced to the compact class. Featuring one electric motor at the front axle and one at the rear, the electric athlete has a system output of over 200 kW. The drive characteristics can be altered by varying the permanent all-wheel drive's front to rear torque distribution. The Concept EQA shows which program has been selected on a unique virtual radiator grille.

The Concept EQ (Paris Motor Show 2016) – a study with the look of a sporty SUV coupe – heralded the launch of the new EQ product and technology brand. Now Mercedes-Benz is showing how an EQ model in the compact segment could look.

At the same time, the Concept EQA is another example of the logical evolution of the Sensual Purity design idiom: sharp edges and lines have been significantly reduced. One example of the new electric aesthetic is the light technology which features laser fibers. Here a laser-activated medium is embedded in the center of a fiber-optic cable. The eye-catching spiral-shaped light signet underlines the electric concept, its design evoking the copper windings of an electric motor and the animation visualizing electrical impulses.

Two electric motors, with a system output that can be increased to over 200 kW thanks to scalable battery components, and permanent all-wheel drive deliver impressive dynamic performance. The two drive programs "Sport" and "Sport Plus" offer a different front to rear torque distribution, allowing a choice of individual drive characteristics.

The black panel at the front end acts as a virtual radiator grille and changes its look according to the drive program. In the "Sport" drive program the grille depicts a flaming wing in horizontal format, while in "Sport Plus" mode vertical struts in the style of a Panamericana radiator grille are displayed.

In combination with the intelligent Mercedes-Benz operating strategy, the Concept EQA achieves a range of around 400 kilometers, depending on the battery capacity installed.

The highly efficient lithium-ion battery with pouch cells is supplied by the Daimler subsidiary Deutsche ACCUMOTIVE. Thanks to their modular design, the innovative battery systems have a model-specific total capacity of over 60 kWh.

The Concept EQA can be charged via induction or wallbox and is also ready for rapid charging. The vision for using public charging stations is "seamless charging:" this Mercedes me-based service makes it easy to charge and pay at different charging stations.

#### EQ: the new electric mobility brand from the inventor of the automobile

EQ offers a comprehensive electric mobility ecosystem of products, services, technologies and innovations. The spectrum ranges from electric vehicles and wallboxes to charging services and home energy storage units. The name EQ stands for "Electric Intelligence" and is derived from the Mercedes-Benz brand values of "Emotion and Intelligence". The new brand encompasses all key aspects for customer-focused electric mobility and extends beyond the vehicle itself. Future models will embody the essentials of state-of-the-art electric mobility: the fusion of emotively appealing and intelligent design, exceptional driving pleasure, high everyday practicality and maximum safety, a hallmark of every vehicle from the inventor of the automobile.

The first series-produced model of the new EQ product brand, the EQC, is set to be produced at the Mercedes-Benz plant in Bremen from 2019. It is based on the Concept EQ exhibited in Paris last year.

#### Mercedes-Benz Concept EQ and smart vision EQ fortwo: further EQ show cars

The Concept EQ (Paris Motor Show 2016) – a study with the look of a sporty SUV coupe – heralded the launch of the new EQ technology and product brand. The four-seater vehicle offers innovative solutions in its interior as well. The focus of the driver-oriented cockpit is on simple, touch-based controls with a new electric aesthetic, consistently reflecting the exterior styling.

The smart vision EQ fortwo, like the Mercedes-Benz Concept EQA, will celebrate its world premiere at the 2017 International Motor Show in Frankfurt. The smart show car provides a new vision of urban mobility and individualized, highly flexible local public transport: the autonomous concept vehicle picks up its passengers directly from their chosen location. New individualization options help users to recognize that it is "their" vehicle: the black panel on the front, the LED displays in place of

the headlamps and rear lamps and the large projection surfaces on the sides of the smart vision EQ fortwo allow an unprecedented degree of vehicle individualization, ideal for car sharing. Freed from the task of driving, the passengers are able to relax in the large interior.

Page 6

The design Page 7

## Design statement with compelling proportions

Following the Concept A Sedan (Auto Shanghai 2017), the Concept EQA is another example of the logical evolution of the Sensual Purity design idiom: sharp edges and lines have been significantly reduced on this sporty two-door model. The Concept EQA is the first Mercedes-Benz all-electric concept vehicle in the compact segment and, like the Concept EQ, this latest member of the EQ family also embodies progressive luxury. Balanced proportions, sensual surfaces and stimulating graphic contrasts make this a highly attractive vehicle. Add future-defining electric mobility, and the result is a bipolarity of emotion and intelligence: the show car is both hot and cool at the same time.

The Concept EQA's purist design, with its emphasis on surfaces and clear contours, gives the vehicle a supremely sporty and modern character as well as accurately designed details with a high value and degree of exclusivity. The Concept EQA has the potential to usher in a new design era.

With its two-box design and its short overhangs, the Concept EQA (length/width/height: 168.7/71.3/56.2 in; wheelbase: 107.4 in) has dynamic and compact proportions. Short overhangs, particularly at the rear, and the shallow greenhouse, which is positioned well back, emphasize the volume of the vehicle body, while the integration of modern graphics creates a unique, sporty character. The alubeam paint finish produces a powerful contrast with the black panoramic glass roof and with the black panels. The muscular wheel arches emphasize the exclusive 20-inch wheels.

Instead of a conventional radiator grille, the show car features a black panel with integrated LED matrix at the front, flowing seamlessly out of the bonnet. This black panel is a virtual radiator grille which can completely change in appearance: the Concept EQA shows the surrounding world which drive program the driver has selected via an animated design in the virtual grille. In the "Sport" drive program the grille depicts a flaming wing in horizontal format, while in "Sport Plus" mode vertical struts in the style of a Panamericana radiator grille are displayed. Common to both grille variants is the illuminated central star.

The headlamps are seamlessly embedded in the black panel grille and, together with the animated 3D grille, produce the new EQ face. The signet of the daytime

Page 8

running lamps reflects the hallmark Mercedes-Benz look. This underlines the feel of effortless superiority and sportiness. The blue lines are continued in the bumpers, giving the vehicle a lower-slung look.

When it comes to the light technology, Mercedes-Benz has opted for laser fibers. Unlike laser diodes, where electrical energy flows into a semiconductor, here a laser-activated medium is embedded in the center of a fiber-optic cable. This new technology ensures homogeneous lighting of the road and, from a design point of view, creates a three-dimensional look with precise contours. The spiral-shaped light signet underlines the electric concept, its design evoking the copper windings of an electric motor and the animation visualizing electrical impulses.

The large, wrap-around rear window extends around the sides as far as the muscular shoulders. Beneath the black window is a lighting strip, which also extends across the entire width of the vehicle, underlining the sporty nature of the Concept EQA. Like the headlamps at the front, the rear lamps also use laser fiber technology and also visualize electrical impulses.

Further black panels at the front (central star and radiator grille surround), rear (bumpers) and sides (graphical element above side sills) of the Concept EQA accommodate LED strips. These are elements of a unique welcome light, which could be activated during the remote parking process, for example.

Powertrain Page 9

## The electric athlete in the compact segment

The Concept EQA features a powerful electric drive system: two electric motors with a system output that can be increased to over 200 kW thanks to scalable battery components, and permanent all-wheel drive ensure high driving dynamics. The two drive programs offer a choice of individual drive characteristics.

The Concept EQA has one electric motor at the front axle and one at the rear. The total output is over 200 kW and maximum torque is over 368 lb-ft. The electric athlete sprints from zero to 60 mph in around 5 seconds. The impressive driving dynamics and ride safety come courtesy of the electric all-wheel drive system with axle-variable torque distribution and the battery installed deep in the vehicle floor between the axles.

The two drive programs "Sport" and "Sport Plus" offer a different front to rear torque distribution, allowing the driver a choice of individual performance characteristics.

In combination with the intelligent Mercedes-Benz operating strategy, the Concept EQA achieves a range of around 400 kilometers. The vehicle can be charged via induction or wallbox and is also ready for rapid charging. At a rapid charging station the Concept EQA can be charged enough in less than 10 minutes to produce a range of 100 km.

In addition to its internal development and production expertise and its modular strategy for alternative powertrains, part of Daimler AG's philosophy is to ensure that it has direct access to key components for electric mobility. The highly efficient lithium-ion battery with pouch cells is supplied by the Daimler subsidiary Deutsche ACCUMOTIVE. Thanks to their modular design, the innovative battery systems have a model-specific total capacity of over 60 kWh.

Services Page 10

## Intelligently networked charging solutions

The Concept EQA can be charged via induction or wallbox and is also ready for rapid charging. The EQ brand goes far beyond the electric vehicle. EQ ("Electric Intelligence") stands for a comprehensive electric ecosystem of services, technologies and innovations. One example of this is the vision of "seamless charging:" this Mercedes me-based service is designed to make it easy for the customer to recharge at any charging station and simply pay online within the Mercedes-Benz ecosystem.

Mercedes-Benz already offers an extensive charging infrastructure for electric cars, including a wallbox as a rapid charging option for the home, the free "Charge&Pay" app for convenient recharging at public charging stations as well as – for homeowners and businesses – stationary energy storage units for the power generated by photovoltaic or solar systems.

In the future maintaining the power supply will be even more straightforward, thanks to charge management and the intelligent charging station search. The vision of "seamless charging" goes a step further: in the future it will be easy for customers to charge their electric vehicles at any charging station and pay without having to register for various different portals or hold a range of different charging cards. With Mercedes me-based charging, the customer remains within the Mercedes-Benz electromobile ecosystem and gets all of the services from a single source.

The Concept EQA can be charged at home or at the workplace and is also ready for rapid charging while out and about. In the future, Mercedes-Benz energy storage units could form an ideal symbiosis with the cordless induction charging system or the wallbox. Households that have their own photovoltaic system and which store their surplus solar power in a Mercedes-Benz energy storage unit can thus benefit from a "green" source of power that is extensively independent of the energy market.

Intelligently networked charging solutions form an integral part of the Mercedes-Benz Cars electric mobility initiative, as customer acceptance of electric mobility is closely associated with the availability of a comprehensive infrastructure.

Page 11

In spring 2017 Daimler AG became a lead investor in the U.S. charging solution provider ChargePoint, Inc. The aim of this strategic investment is to significantly expand the portfolio in the area of intelligent charging solutions and to provide the customer with an all-embracing, premium electric mobility service. Currently offering more than 33,000 charging spots, ChargePoint is the world's leading provider in the electric mobility charging solutions segment and is the market leader in the USA. The plan is to expand the business to the European market as well.

CASE Page 12

## **Networked strategy**

CASE – these letters are shaping the future of mobility. They stand for the fields of networking (Connected), autonomous driving (Autonomous), flexible use (Shared & Services) and electric drive systems (Electric). The four CASE fields are an integral part of the corporate strategy of Daimler AG. The aim is to shape intuitive mobility for our customers through intelligent dovetailing of the CASE topics.

Mercedes-Benz Cars already plays a leading role in all four areas today. For example, all activities in the area of connectivity are focused on the digital brand Mercedes me, which gives customers access to an extensive and personalized range of services by app, website or straight from their car.

On the way to autonomous driving, Mercedes-Benz has for years been a key driver of development and has repeatedly set the benchmark. To this end, the Mercedes engineers use what is known as sensor fusion. The data from different sensors, such as cameras, ultrasound and radar, are intelligently combined and analyzed. With smart vision EQ fortwo, the smart brand is also demonstrating what driving without a steering wheel could look like in the future of carsharing.

The inventor of the car is already playing a leading role in the field of Sharing & Services. The mobility services used by over 14.5 million people range from free-floating carsharing (car2go) and private peer-to-peer carsharing (Croove), through ride-hailing (mytaxi) to the mobility platform (moovel).

Mercedes-Benz is pursuing a holistic approach to powertrain electrification. Apart from the EQ brand with a family of vehicles, Mercedes-Benz is also developing a holistic ecosystem, which, alongside the vehicle itself, also comprises a comprehensive electric mobility offering. This extends from intelligent services and energy storage units for private and commercial customers to charging technologies and sustainable recycling. On the road to emission-free driving Daimler is systematically pursuing a three-lane drive system strategy in order to implement maximum environmental compatibility across all vehicle classes (incl. commercial vehicles, vans) – with an intelligent mix of the latest combustion engines and partial electrification through 48-volt technology, tailor-made EQ Power plug-in hybrids and electric vehicles with battery or fuel cell drive systems.

By focusing on CASE Daimler is preparing for the mobility of the future. More at: http://www.daimler.com/CASE.

Page 13

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#### **Contacts:**

Koert Groeneveld, Global Product Communications Mercedes-Benz Cars, tel.: +49 (0) 711 17-92311, koert.groeneveld@daimler.com

Markus Nast, Global Product Communications Mercedes-Benz Cars, tel.: + 49 (0) 711 17-96357, markus.nast@daimler.com

Wolfgang Würth, Global Product Communications Mercedes-Benz Cars, tel.: +49 (0)711 17-46508, wolfgang.wuerth@daimler.com

More information from Mercedes-Benz is available online at: www.media.daimler.com and www.mercedes-benz.com