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The descriptions and data in this press kit apply to the international model range of Mercedes-Benz. UK specification and technical data may vary.

The all-new Mercedes-Benz CLA: gorgeous, effortless, intuitive, and flexible.

Content

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The most emotional and efficient, intuitive and intelligent Mercedes-Benz ever

The all-new Mercedes-Benz CLA: the highlights

The new CLA offers more to customers in every dimension: more space, more refinement, more comfort, more intelligence, and more efficiency compared to its predecessor. It is the cleverest car Mercedes-Benz ever made – and the first model in a completely new family of vehicles. Each new model will be available with both electric and high-tech hybrid drives. The debut is made by the all-electric CLA.

To reflect the significance of the new CLA to the United Kingdom, and celebrate its worldwide introduction, an animation featuring the first images of the new model will be projected onto London's County Hall beginning at 19:00 GMT.

Intuitive: The most intelligent Mercedes-Benz ever thanks to the Mercedes-Benz Operating System (MB.OS)

Up-to-date for years and always ready for new features: regular over-the-air updates

The new CLA is the first vehicle to fully operate on the in-house developed Mercedes-Benz Operating System (MB.OS), making it the most intelligent Mercedes-Benz ever. The new AI-enhanced system makes it possible to equip every vehicle with a supercomputer connected to the Mercedes-Benz Intelligent Cloud. This enables regular over-the-air updates[1] for the most important vehicle functions, including driving assistance systems for the first time. This keeps the CLA up-to-date and attractive for years to come.

On the way to a hyper-personalised digital experience: the fourth MBUX generation

MB.OS marks the start of the fourth MBUX generation. It opens up a new world of personalised experiences and intuitive interaction between human and vehicle, setting new standards in the automotive industry. The new MBUX generation is the first in-car infotainment system to integrate artificial intelligence (AI) from both Microsoft and Google. This combines multiple AI agents in one system for the first time. MB.OS offers maximum flexibility to seamlessly integrate content from third-party providers. The typical Mercedes interface remains, delivering the familiar customer experience.

Exceptionally intuitive and individual: the new MBUX UI/UX concept

The MBUX Superscreen is powered by state-of-the-art high-performance chips and real-time graphics from the Unity Game Engine. The new control and display concept is tailored to individual customer preferences. The further developed MBUX Zero Layer on the central display shows the most important information, suggestions and, for the first time, the most recently used apps[1]. In the app view, apps can now be moved and grouped into individually named folders, similar to a smartphone. When an app is open, a simple swipe to the left returns to the app view. Another swipe takes the user back to the Zero Layer. Alternatively, they can still go directly to the Zero Layer at any time via the home button.

Intelligent, easy to talk to and empathetic like a friend: the new MBUX Virtual Assistant

With generative AI, the new MBUX Virtual Assistant revolutionises the relationship between vehicle and driver. It enables the kinds of complex, multi-turn dialogues one might have with a friend and has short-term memory. Based on ChatGPT4o and searches with Microsoft Bing, it unites the collective knowledge of the internet. Thanks to Google Gemini, the virtual assistant is also well-versed in navigation-related questions. It can access information from the Google Maps platform to provide users with detailed and personalised answers to questions about navigation, points of interest and much more. The MBUX Virtual Assistant is

[1] A personal Mercedes me ID and agreement to the Terms of Use for the Mercedes-Benz Digital Extras are required to use the services. In addition, the vehicle must be paired with the corresponding user account. Upon expiry of the initial term, the services can be renewed for a fee, provided they are at that point still offered for the corresponding vehicle.

always present on the Zero Layer as a “living” avatar in the form of the Mercedes-Benz star. During an active dialogue, it recognises emotions and can respond accordingly.

Intelligent navigation you can trust: bespoke Google Maps solution

In the new CLA, the navigation experience is based on Google Maps[2]. The navigation solution developed as part of the partnership between Google and Mercedes-Benz is one of the first integrations of Google Cloud’s new Automotive AI Agent for in-vehicle conversation services with Google Maps. Mercedes-Benz Navigation with Electric Intelligence plans the fastest and most convenient route, including charging stops, based on numerous factors. Integrated visual communication also reaches a new dimension with MBUX Surround Navigation. It seamlessly integrates the driver-assistance view with a 3D representation of the surroundings and route guidance in real-time on the driver display. Drivers benefit from improved situational awareness, seeing what the CLA sees and how the assistance systems support them.

MB.DRIVE sets a new standard with state-of-the-art driving assistance and parking systems

The new CLA models in Europe come as standard with extensive safety features and the DISTRONIC Distance Assist. Additional comfort assistance systems are bundled by Mercedes-Benz under the name MB.DRIVE². MB.DRIVE ASSIST will be optionally available in Europe from market launch. It complements Distance Assist DISTRONIC with Steering Assist, making it a state-of-the-art SAE Level 2 driving assistance system. New in the CLA is Lane Change Assist, which facilitates lane changes with a simple click of the indicator lever. The safety assistance systems can prevent a multitude of accidents.

Effortless on the road: The CLA with EQ technology is the “one-litre car” for the electric age

Remarkably low consumption and high range

The carbon footprint of the new all-electric CLA is reduced by 40 percent over the entire value chain compared to its non-electrified predecessor. With remarkably low consumption and an impressive range in this segment, the CLA is taking electric mobility in everyday life to a new level. The first models to come to markets are the CLA 250+ with EQ Technology (combined energy consumption: 14.1-12.2 kWh/100 km | combined CO_2 emissions: 0 g/km | CO_2 class: A)[3] and the CLA 350 4MATIC with EQ Technology (combined energy consumption: 14.7-12.5 kWh/100 km | combined CO_2 emissions: 0 g/km | CO_2 class: A)[3]. With a range of up to 792 kilometres according to the WLTP[3], the 200 kW CLA 250+ with EQ Technology offers a large radius in its class. The CLA 350 4MATIC with EQ Technology with 260 kW is positioned as the performance version at the top end of the model range.

The 800-volt electric architecture makes charging almost as fast as refuelling

The 800-volt system can significantly reduce charging time in conjunction with the new battery generation. The CLA 250+ with EQ Technology can be recharged to a range of up to 325 kilometres[4] within ten minutes. Fast DC charging with up to 320 kW is possible for the CLA 250+ and CLA 350 4MATIC.

New battery generation with high energy density and a smaller carbon footprint

The new all-electric models CLA 250+ and CLA 350 4MATIC feature the top variant of lithium-ion batteries with a usable energy content of 85 kWh. The cells have anodes that mix silicon oxide with graphite. Compared to the previous battery with conventional graphite anodes, the gravimetric energy density has been increased by up to 20 percent. The volumetric energy density of the cell chemistry is 680 Wh/l. The cobalt content has been further reduced. The new battery generation reduces the carbon footprint by about 30 percent per cell

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[3] The specified values were determined in accordance with the prescribed WLTP (Worldwide harmonised Light vehicles Test Procedure) measurement method. The ranges given refer to the European market. The energy consumption and CO_2 emissions of a car depend not only on the efficient utilisation of the fuel or energy source by the car, but also on the driving style and other non-technical factors.
[4] At DC fast-charging stations with 500 amps based on the WLTP range.

compared to its predecessor. This is thanks to carbon reduction measures, net carbon neutral[5] cell production and the use of electricity from renewable energy sources in anode, cathode and cell housing production.

Sprinter and marathon runner in one: the new two-speed transmission

The two-speed gearbox on the main drive at the rear axle combines dynamism with high efficiency in all situations. The first gear enables excellent acceleration right from the start, a high towing capacity and it also offers great efficiency in urban traffic. The second gear is designed for power delivery at high speeds and high efficiency on the motorway. It ensures outstanding range and long-distance comfort. The top speed is also achieved in the second gear.

“Free” heat for efficient pre-conditioning: multi-source heat pump as standard

The electric CLA is the first Mercedes-Benz vehicle to feature an air-to-air heat pump. It no longer takes the detour through a water circuit and, as a so-called multi-source model, can use three energy sources in parallel: the waste heat from the electric drivetrain, the battery, as well as the ambient air. By using this “free” heat, the air-to-air heat pump contributes to the high efficiency of the CLA. It requires only about one-third of the electrical energy that a comparable auxiliary heater would need for the same output.

Flexible for individual needs: all-electric or with high-tech 48-volt hybrid drivetrain

A modern hybrid with three power levels will follow towards the end of the year

All-electric models play a key role in implementing Mercedes-Benz’s sustainable business strategy. However, the wishes and mobility needs of customers in different regions of the world determine the pace of this transformation. Towards the end of the year, the new CLA will also be available as a hybrid with 48-volt technology and an electric motor integrated into the transmission. The modular architecture of the CLA model family allows Mercedes-Benz maximum flexibility in the drive concept and production. The state-of-the-art combustion engine of the CLA hybrid will initially be available in three power levels. Customers will have the choice between front-wheel drive and 4MATIC all-wheel drive.

CLA hybrid models can drive all-electrically and recuperate

The electric motor, inverter and transmission form a highly integrated unit. The electric motor provides intelligent support across the entire speed range. At urban speeds and when less than 20 kW is needed, the hybrid models can drive on electric power alone. So-called electric cruising is possible at speeds of up to around 100 km/h. A special feature of the combustion engine is its ability to recuperate in all eight gears, recovering up to 25 kW of energy.

Gorgeous: emotional expression of athletic power

A desirable statement: athletic proportions and striking character lines

The CLA with EQ Technology captivates with an exciting interplay of intelligence and emotion, redefining desire. The long wheelbase, short overhangs and a powerful GT rear are an emotional expression of athletic power. The car’s sporty proportions are enhanced by a low greenhouse, long bonnet with power domes and large wheels. The car’s muscular and athletic shoulders start at the front wheel arches and extend to the sculptural rear. The clear design language emphasises the sculpted surfaces with reduced lines and precise joints. The striking character lines on the flank create an interesting interplay of light and shade when viewed side-on.

Radiant “face”: panel with illuminated Mercedes-Benz pattern

The iconic and sporty A-shape grille has been reinterpreted for the electric age. The innovative seamless star panel is fully illuminated for the first time on a Mercedes-Benz production vehicle. A total of 142 individually

[5] Net carbon-neutral means that carbon emissions that are not avoided or reduced at Mercedes-Benz are compensated for by certified compensation offsetting projects.

animated LED chrome-effect stars create a distinctive brand signature. One of the few visual differences distinguishing the CLA hybrid is its classic radiator grille. It features a Mercedes-Benz pattern in chrome, framed by an LED lightguide as standard.

Brightens the day and night: star-shaped headlights and taillights

With the optional MULTIBEAM LED headlights, the daytime running lights take the form of a Mercedes-Benz star. Connecting the headlights is a band of light. The taillights are also star-shaped and connected by an illuminated design element. This combination gives the CLA a strong and unique visual presence. In conjunction with the optional MULTIBEAM LED headlights, it forms the new Mercedes-Benz signature. It makes a Mercedes instantly recognisable at all times of the day or night – an unmistakable statement of iconic luxury. The standard-fit LED High Performance headlights have a chrome-plated design element in the shape of a star.

Light-flooded ambiance: panoramic roof fitted as standard for a generous interior feel

All CLA models come as standard with an expansive panoramic roof. This one-piece fixed glass roof has no central brace and extends seamlessly from the windscreen frame to the rear. It provides a new interior experience with an almost unobstructed view upwards. At the same time, the panoramic roof contributes to more generous headroom compared to its predecessor. Heat-insulating laminated safety glass, infrared film and low-emissivity (LowE) coating protect against sunlight and heat.

New spatial experience: minimalist interior design focusing on three iconic high-tech elements

The interior of the CLA offers a new luxury experience in this vehicle class. The design follows the principle of reduction to the essentials. It de-emphasises the underlying structure and focuses on a few iconic high-tech elements. The highlight is the optional, floating MBUX Superscreen, which extends across the entire width of the interior. Behind a large glass surface are the 26-centimetre (10.25-inch) driver display and the 35.6-centimetre (14-inch) centre display. After market launch of the CLA, the MBUX Superscreen will be available as an optional extra with an additional 35.6-centimetre (14-inch display) for the front passenger. Another eye-catcher is the centre console. Appearing to float in mid-air, its high position enhances the sporty feel. As in higher vehicle classes, it is split into two levels. The upper section offers an expansive, three-dimensional trim surface – with an integrated double cup holder and optional wireless smartphone charging cradle. The third high-tech element is the large leather-clad door centre panels, which likewise seem to float. They wrap three-dimensionally over the profile of the pull handle, which is designed in a classic tubular form.

Best-in-class equipment: a reinterpretation of modern luxury at Mercedes-Benz

An attractive and versatile range of colours and materials underscores Mercedes-Benz's commitment to exceptional design and distinctive features. Options include the new paint colours aqua mint and clear blue metallic as well as newly developed seat upholstery with a technical-looking pearl effect in black/clean white pearl. Also available are trim elements made of open-pore wood, brushed aluminium, a coating with an anodised look and a decorative paper surface that is new in the automotive industry.

Intuitive interaction and proactive support for the driver

The all-new Mercedes-Benz CLA: the Mercedes-Benz Operating System and driving assistance systems

- The cleverest Mercedes-Benz ever made
- For the first-time, over-the-air updates of the entire vehicle software, including driving assistance systems
- New MBUX generation for an even more intuitive and personalised customer experience
- New MBUX Virtual Assistant offers the first in-car system with artificial intelligence from Google and Microsoft for natural and complex conversations
- Tailored MB.DRIVE assistance systems set new standards in safety and comfort

The new CLA is the first vehicle to operate entirely on the in-house developed Mercedes-Benz Operating System (MB.OS). This makes it the cleverest Mercedes-Benz ever made. The deep integration of the chip-to-cloud architecture into the vehicle provides control of all actuators and sensors for an unparalleled immersive experience and intelligent integration of vehicle functions into the user interface. MB.OS is the brain of the new CLA. It controls four areas: infotainment, automated driving, body & comfort and driving & charging. At its core, MB.OS helps decouple hardware and software, making software development faster and more adaptable.

Starting with the new CLA, Mercedes-Benz divides the technological intelligence of its vehicles into three categories: MBUX, MB.DRIVE and MB.CHARGE. MB.DRIVE is the new umbrella term for intelligent driving assistance systems.

Thanks to MB.OS, the CLA is up-to-date for years and always ready for new functions

The CLA is equipped with supercomputers connected to the Mercedes-Benz Intelligent Cloud. This enables over-the-air updates[6] of the entire vehicle software, including driving assistance systems for the first time. This keeps the CLA up-to-date and attractive for years, similar to a smartphone that regularly receives new apps and extended functions. To provide customers with top-notch content and experiences, Mercedes-Benz collaborates with leading global partners like Google and Microsoft. The Mercedes-Benz Operating System offers maximum flexibility to seamlessly integrate content from third-party providers. The typical Mercedes-Benz user interface remains intact, ensuring the familiar and valued customer experience.

The Mercedes-Benz Operating System also features more efficient software performance. As a result, over-the-air updates consume significantly less energy compared to the previous system. With MB.OS, Mercedes-Benz sets new standards in energy efficiency through advanced technologies, the implementation of power-saving modes and intelligent function control. This means more range and fewer carbon emissions.

Launch of the fourth MBUX generation: exceptionally intuitive and personalised

The proven and popular infotainment system Mercedes-Benz User Experience (MBUX) now runs on MB.OS, marking the start of the fourth MBUX generation. It opens up a new world of personalised experiences and intuitive interaction between humans and vehicles, setting new standards in the automotive industry. The new MBUX generation is the world's first in-car infotainment system to integrate artificial intelligence (AI) from both Microsoft and Google, combining multiple AI agents in one system for the first time.

The up to three screens are powered by state-of-the-art high-performance chips and real-time graphics from the Unity Game Engine. The new operating and display concept is tailored not only to the vehicle but also to individual customer preferences, following the design principle of reduction to the essentials. The enhanced MBUX Zero Layer on the central display shows the most important information, suggestions and, for the first

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time, recently used apps[7]. In the app grid, apps can now be moved and grouped into individually named folders, similar to a smartphone. When an app is open, a simple swipe to the left returns to the app grid. Another swipe takes the user back to the Zero Layer. Alternatively, they can still go directly to the Zero Layer at any time via the home button.

The MBUX Virtual Assistant: intelligent, easy to talk to and empathetic, like a friend

With generative artificial intelligence (AI), the new MBUX Virtual Assistant revolutionises the relationship between vehicle and driver. It is the next evolutionary step of the MBUX voice assistant and goes far beyond responding to commands. The MBUX Virtual Assistant enables complex, multi-turn dialogues – like you have with a friend – and has short-term memory. It is activated by saying "Hey Mercedes." Based on ChatGPT4o and Microsoft Bing search, it unites the collective knowledge of the internet. For example: "Hey Mercedes, when does the cherry blossom season start in Japan?" – "And when does it start in Germany?" Users can speak naturally without thinking about specific formulations. For instance, the virtual assistant can answer questions like "Hey Mercedes, what is a black hole? Explain it so that children can understand."

Thanks to Google Gemini, the MBUX Virtual Assistant is also well-versed in navigation-related questions. The Automotive AI Agent from Google Cloud, developed with Gemini via Vertex AI, is specifically tailored to the automotive industry. It can access information from the Google Maps platform to provide users with detailed and personalised answers to questions about navigation, points of interest and more. For example, it can respond with suggestions to the question: "Hey Mercedes, I have a date today. Do you have any ideas for something special to do around here?"

The MBUX Virtual Assistant can retain context. It can switch between the Automotive AI Agent from Google and ChatGPT, depending on the topic being discussed. This means users can continue conversations and retrieve information throughout their journey. The virtual assistant is always present on the Zero Layer as a "living" avatar in the form of the Mercedes-Benz star.

During an active dialogue, it recognises emotions and can respond accordingly. The star avatar provides visual feedback through colour-coded animations to express moods and show empathy. In the default setting, it is blue (red with the AMG Line). If it detects that the customer is in a positive mood, it turns green. If the MBUX Virtual Assistant notices pronounced happiness or excitement, for example, about a planned date, the avatar becomes more vivid and colourful. In the case of anger or sadness, it changes to orange/red. With different animations, the Virtual Assistant also signals whether it is speaking, listening or processing. Movement, brightness, intensity and colour interact seamlessly to communicate intuitively with the driver.

Individual entertainment for the front passenger

The all-new CLA offers the front passenger an optional 35.6-centimetre (14-inch) screen for individual entertainment. The continuously growing app portfolio[7] includes video-streaming platforms such as Disney+. This popular video-streaming service offers a wide range of films and series from Disney, Pixar, Marvel, Star Wars and National Geographic. Since its launch, Disney+ has gained millions of subscribers worldwide and focuses on exclusive content to constantly expand its user base. With a user-friendly interface and a continuously growing library, Disney+ is a permanent fixture in the streaming market and is now available in the all-new CLA and soon in further Mercedes-Benz models. Also available are the video-streaming platform RIDEVU from Sony Pictures Entertainment and video games with a wide selection of triple-A titles via the cloud-gaming provider Boosteroid. To enjoy the best in-car gaming experience, customers can use their Bluetooth gaming controller or mobile phone. The gaming controller can be used with the passenger display even while driving. The central display can only be used for this when parked.

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The passenger display screensaver can also be customised with personal images. Numerous safety precautions, such as eye-tracking technology, ensure that the driver is not distracted.

MBUX Surround Navigation: seamless integration of assistance and route guidance

Integrated visual communication also reaches a new dimension with MBUX Surround Navigation. Thanks to the deeply integrated architecture of MB.OS, the advanced navigation system shows a real-time view of the vehicle and its surroundings. The system seamlessly combines the driving assistance view with a 3D representation of the surroundings and route guidance on the driver display. It shows other road users such as cars, bicycles, motorcycles and pedestrians. The integration of information into the driver display using 3D game engine graphics provides an extremely intuitive overview.

Drivers benefit from improved situational awareness as they see what the CLA sees and how the assistance systems are supporting them. This also builds trust on the path to autonomous driving. The display of route guidance in an environmental representation is particularly helpful in busy urban traffic. Customers can see early on what lies ahead, such as behind the next turn. Buildings and other infrastructure are easily and quickly recognisable. The system also provides an integrated overview of vehicle status through real-time virtual-reality visualisation, including the illumination of indicators, high and low beams. Acceleration and deceleration are visualised by the adjusted speed of the wheels.

Intelligent navigation you can trust, with tailormade route guidance from Google Maps

In the new CLA, the navigation experience is based on Google Maps[8]. The unique navigation system offers Mercedes-Benz customers the best of both worlds: core services from Google Maps as a recognised benchmark and the trusted user interface from Mercedes-Benz. This offers the familiar Mercedes-Benz services for charging and parking. The navigation solution in the CLA, developed in partnership by Google and Mercedes-Benz, is one of the first systems to integrate Google Cloud’s new Automotive AI Agent for in-vehicle use with Google Maps.

Mercedes-Benz Navigation with Electric Intelligence plans the fastest and most convenient route, including charging stops, based on numerous factors. It dynamically responds to traffic jams or changes in driving style. Mercedes-Benz is continuously developing the energy forecast for Navigation with Electric Intelligence. In the future, predicted wind conditions along the road will be considered even more accurately based on the vehicle's height.

To work out the route, the system calculates energy demand. It takes into consideration topography, route profile, ambient temperature, speed, heating and cooling needs. Other factors include the traffic situation on the planned route and the available charging stations, their charging capacity and payment functions. The calculation takes place in the cloud and is combined with onboard data.

The intelligent navigation recognises when a charging stop is necessary and plans it automatically to optimise overall travel time. Sometimes, two short charging stops with higher charging capacity may be more beneficial than one longer stop. Additionally, the vehicle's charging settings are automatically adjusted by Navigation with Electric Intelligence and optimised for fast charging along the route. This includes preconditioning the high-voltage battery to ensure it is at the optimum temperature for high-speed DC charging at the right time. The system also provides energy-saving tips.

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Mercedes-Benz is the first automaker to introduce an integrated reservation function[9] for charging stations. Starting in Germany and the USA, Mercedes-Benz customers can exclusively use the integrated charging service MB.CHARGE Public[10] to reserve a charging point in advance at the company's own Mercedes-Benz charging parks. When route guidance using Navigation with Electric Intelligence is active, the vehicle automatically makes the reservation 15 minutes before reaching the charging station. For drivers, the reservation function saves time spent waiting and provides them the assurance of an available charging spot.

KEYLESS-GO now with automatic locking and unlocking

The new CLA is available with the optional KEYLESS-GO feature. In the latest generation of this access system, and depending on market availability, the vehicle automatically locks or unlocks when the user with the vehicle key approaches or moves away. This feature can also be deactivated via the head unit if desired. Additionally, KEYLESS-GO is optionally available with HANDSFREE ACCESS, allowing automatic opening and closing of the boot via a kicking motion under the rear bumper.

MB.DRIVE sets a new standard with advanced driving and parking assistance systems

The all-new CLA models in Europe come standard with extensive safety equipment and the Distance Assist DISTRONIC. Technical details include eight cameras, five radar sensors, twelve ultrasonic sensors and a water-cooled supercomputer with sufficient power reserves for future functions and regular over-the-air updates.

Mercedes-Benz bundles additional comfort assistance systems under the name MB.DRIVE. The following digital extras[10] are available or planned:

- MB.DRIVE ASSIST: Available as an option from market launch in Europe, it offers significantly more comfort by complementing Distance Assist DISTRONIC with Steering Assist, making it a state-of-the-art SAE Level 2 driving assistance system. New in the CLA is Lane Change Assist, which facilitates lane changes with a simple click of the indicator stalk.

- MB.DRIVE ASSIST PLUS: Planned for later release, it offers enhanced assistance functions depending on the market. This includes the further developed Distance Assist DISTRONIC Plus. There are also plans for an Automatic Lane Change function on highways.

- MB.DRIVE ASSIST PRO: Includes two additional cameras, enabling new assistance functions in urban traffic to SAE Level 2++. Technically, MB.DRIVE ASSIST PRO is possible worldwide in the CLA due to its modular design, but it cannot yet be approved everywhere for regulatory reasons. The market launch is initially planned for the Chinese variant in 2025, as the regulatory framework there allows it. The regulatory possibility also exists in the USA, with market launch planned for 2026.

- MB.DRIVE PARKING ASSIST: Can better and faster recognise parking spaces on both sides, as well as angled parking. It also detects parking spaces marked not only with white lines. Plus, it is now possible to leave a parking space automatically even after the car was parked manually.

- MB.DRIVE PARKING ASSIST 360: Adds new and improved surround views and a new-look HMI to the Parking Assist package.

[9] The reservation function is currently available at selected Mercedes-Benz charging stations in Germany and the USA. Further rollouts are planned for 2025, and the long-term goal is to establish around 10,000 charging points by the end of the decade. Mercedes-Benz is initially offering the reservation option free of charge as part of MB.CHARGE Public. Mercedes-Benz reserves the right to charge for the reservation in the future.
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Effortless on the road with innovative drivetrains and typical brand virtues

The all-new Mercedes-Benz CLA: drivetrain, chassis, aerodynamics and safety

- The 800-volt system and SiC inverter bring the technology of the VISION EQXX to series production
- The two-speed transmission contributes to efficiency and enables dynamic driving performance
- Up to 325 kilometres[11] of range can be recharged in just ten minutes
- Excellent drag coefficient (c_d) starting at 0.21, with minimal variation within the model range
- Prepared for bidirectional charging (V2G and V2H)
- Centre airbag available for the first time in this vehicle class
- High level of active and passive safety and a multi-stage high-voltage protection system

The all-new CLA with EQ technology is the “one-litre car” for the electric age. With remarkably low consumption and impressive range in this segment, it elevates the real-life practicality of electric mobility to a new level. Initially, the CLA 250+ with EQ Technology (combined energy consumption: 14.1-12.2 kWh/100 km | combined CO_2 emissions: 0 g/km | CO_2 class: A)[12] and the CLA 350 4MATIC with EQ Technology (combined energy consumption: 14.7-12.5 kWh/100 km | combined CO_2 emissions: 0 g/km | CO_2 class: A)[12] will be launched. By the end of the year, the model range will be expanded to include additional battery-electric variants and the CLA with a high-tech hybrid engine (see separate chapter).

With a range of up to 792 kilometres according to WLTP[12], the CLA 250+ with EQ Technology offers a large radius in its class. This 200 kW model variant can travel from Stuttgart to Kiel or from Bremen to Munich without charging stops. The 260 kW CLA 350 4MATIC with EQ Technology is positioned as the performance version at the top end of the model range. It combines high efficiency with immense driving pleasure and outstanding performance, accelerating from 0 to 100 km/h in just 4.9 seconds. Both power levels reach speeds of up to 210 km/h.

800-volt technology makes charging almost as fast as refuelling

Highlights of the all-electric CLA include the 800-volt electrical architecture and advanced drive units with a two-speed transmission on the main drive at the rear axle. The 800-volt system maximises efficiency and performance and can significantly reduce charging time in conjunction with the new battery generation. With EQ technology, the CLA can recharge with up to 325 kilometres[13] of range in just ten minutes. Fast DC charging is possible with up to 320 kW for both the CLA 250+ and CLA 350 4MATIC.

[11] Mercedes-Benz CLA 250+ with EQ Technology; at DC fast-charging stations with 500 amps based on the WLTP range.
[12] The specified values were determined in accordance with the prescribed WLTP (Worldwide harmonised Light vehicles Test Procedure) measurement method. The ranges given refer to the European market. The energy consumption and CO_2 emissions of a car depend not only on the efficient utilisation of the fuel or energy source by the car, but also on the driving style and other non-technical factors.
[13] At DC fast-charging stations with 500 amps based on the WLTP range.

The first two all-electric CLA models at a glance:

		CLA 250+ with EQ Technology	CLA 350 4MATIC with EQ Technology
Power (Peak)	kW	200	260
Torque (Peak)	Nm	335	515
Battery: cell chemistry		Nickel-Manganese-Cobalt	
Battery: usable energy content	kW	85	
Max AC charging power	kW	11	
Max DC charging power	kW	320	
DC charging: range after 10 min (WLTP)[14]	km	285-325	275-315
Acceleration 0-100 km/h	s	6.7	4.9
Top speed	Km/h	210	
Combined energy consumption (WLTP)[15]	kWh/100 km	14.1-12.2	14.7-12.5
Combined CO_2 emissions (WLTP)[15]	g/km	0	0
Range (WLTP)[15]	km	694-792	672-771
CO_2 class		A	A

Newly developed electric drive system with 93 percent efficiency

With the main drive on the rear axle for optimal traction and driving characteristics, Mercedes-Benz brings a drive layout known from the mid and upper classes to the entry-level segment. The 200 kW electric drive unit with a permanently excited synchronous motor (PSM) on the rear axle was developed entirely in-house and is directly derived from the VISION EQXX unit. Battery-to-wheel efficiency over long distances is 93 percent.

The magnets in the rotor are arranged in a double-V shape. Another feature is the winding of the stator with so-called hairpin windings. These measures contribute to an especially quiet drive. The PSM also has a significantly lower proportion – almost zero percent – of heavy rare earth elements compared to previous motor generations. The high-performance power electronics are equipped with a silicon carbide (SiC) inverter for particularly efficient energy use. Transmission control and inverter are highly integrated into a single component.

Sprinter and marathon runner in one: two-speed transmission combines dynamics with high efficiency

The drive architecture includes a two-speed transmission on the rear axle, combining performance with efficiency. The first gear has a short ratio of 11:1, enabling excellent acceleration right from the start, a high towing capacity and great efficiency in urban traffic. The second gear (ratio: 5:1) is designed for power delivery at high speeds and high efficiency on the motorway for outstanding long-distance range and comfort. The top speed is also achieved in the second gear.

The shift points depend on the driving situation and the selected driving programme. Additionally, the online optimiser continuously adjusts them to current parameters such as battery charge level, power and driver requirements. Power is transmitted via claws (1st gear) or discs (2nd gear). The transmission has special thermal insulation.

[14] At DC fast-charging stations with 500 amps based on the WLTP range.
[15] The specified values were determined in accordance with the prescribed WLTP (Worldwide harmonised Light vehicles Test Procedure) measurement method. The ranges given refer to the European market. The energy consumption and CO_2 emissions of a car depend not only on the efficient utilisation of the fuel or energy source by the car, but also on the driving style and other non-technical factors.

The Electric Drive Unit (EDU) 2.0 resolves the conflict between maximum torque, top speed and excellent efficiency – especially in real-world driving. The high torque not only ensures dynamic driving performance but is also helpful for tackling inclines on mountain passes or towing loads. The all-electric CLA models[16] can tow up to 1.8 tonnes with the semi-electric trailer hitch (optional), making them suitable for towing compact caravans.

Additional power only when needed: 4MATIC models with Disconnect Unit

The CLA 350 4MATIC all-wheel -drive model also features an 80 kW drive unit on the front axle. This unit is likewise equipped with a silicon carbide (SiC) inverter for efficiency and is designed as a permanently excited synchronous motor (PSM). The front electric motor functions as a “boost” drive, activated only when additional power or traction is needed, depending on the driving situation or programme. This task is handled by the Disconnect Unit (DCU), which Mercedes-Benz is using for the first time in this segment.

For higher efficiency, the DCU can quickly decouple the front electric motor under low load, causing the electric motor and parts of the transmission to stand still. This reduces front axle losses by up to 90 percent and increases range.

“Free” heat for efficient pre-conditioning: multi-source heat pump as standard

The all-electric CLA is the first Mercedes-Benz to come as standard with an air-side heat pump. It no longer takes a detour through a water circuit and can use three energy sources in parallel as a so-called multi-source model: waste heat from the electric drive, the battery and ambient air. The air-to-air heat pump contributes to the high efficiency of the CLA by utilising this "free" heat. It uses about one-third of the electrical energy that a comparable auxiliary heater would need for the same output.

In addition to high thermal comfort for the occupants, the multi-source heat pump also enables the CLA’s very high charging performance. It brings the high-voltage battery to the ideal temperature range before fast charging. The battery is integrated into the intelligent thermal management system. When Navigation with Electric Intelligence is activated, the battery is preheated during the drive if necessary, reaching the optimal temperature for fast DC charging at the charging point. Mercedes-Benz ensures that efficiency does not come at the expense of cabin warmth, keeping the interior at a comfortable temperature during fast charging.

Intelligent recuperation for maximum range

The all-electric CLA features a new one-box brake system. Previously separate components such as the brake booster with master brake cylinder and ESP control are combined into a compact module – hence the name. The system optimises the recovery of braking energy, increasing range. The by-wire concept ensures a consistent, assured and transparent brake pedal feel for the driver, regardless of whether braking is through recuperation or friction braking. Additionally, the new brake system meets the brand’s high safety standards. In the event of a fault, the system reliably switches to the hydraulic fallback, ensuring safe braking behaviour at all times.

For efficiency reasons, almost all braking processes are carried out entirely through recuperation. The recuperation power is up to 200 kW. In principle, the models can even brake electrically to a standstill, thus recovering kinetic energy. The strong deceleration (up to 3 m/s² per axle) means more recovered energy and, ultimately, a longer range. Recuperation is possible even during ABS braking or on icy roads.

The selector paddle behind the steering wheel serves for more than just selecting driving modes. The driver can also use it to adjust recuperation power. Pulling the lever towards the steering wheel increases the level of recuperation to a deceleration of up to 3 m/s². Pushing the lever towards the driver display reduces energy

[16] Mercedes-Benz CLA 350 4MATIC with EQ Technology

recovery accordingly. Further pressing the selector paddle switches between the recuperation levels D+ and D Auto. The selected level is shown at the bottom of the display. The following four recuperation levels are possible:

- D Auto: Intelligent recuperation
- D+: No recuperation (coasting)
- D: Standard recuperation up to 1 m/s²
- D-: Enhanced recuperation up to 3 m/s²

All four recuperation levels are available as “Last Mode.” In the D Auto recuperation level, the ECO Assistant is automatically active. Depending on the equipment, it can use data stored in the navigation map as well as information from sensors and cameras to determine the anticipated route of the vehicle. This system helps optimise driving behaviour for the upcoming situation, minimising energy consumption and maximising recuperation. The following route events can be detected: roundabouts, tight bends, junctions, T-intersections, inclines and speed limits. The ECO Assistant can also respond to other intersections or junctions if the turn signal is activated in time.

When the system detects an upcoming event or a vehicle ahead and the vehicle approaches the event, the ECO Assistant calculates the optimised speed profile based on distance, current speed and available route information. The symbol “Foot off the pedal” appears on the driver display. In the CLA, this is located even more centrally located in the driver’s field of vision. Following this prompt activates intelligent recuperation in coasting mode. If the ECO Assistant detects a vehicle ahead or a stationary vehicle, it can even bring the CLA to a complete stop. This could be, for instance, at the end of a traffic jam or before a traffic light.

Top battery with silicon-oxide anodes and high energy density

The innovative battery system is based on a highly integrated modular architecture. The batteries consist of four large cell modules with hardcase cells and feature a compact and flat design. The CLA 250+ and CLA 350 4MATIC use the top variant of lithium-ion batteries with a usable energy content of 85 kWh. The cells’ anodes are made from graphite mixed with silicon oxide. Compared to the previous battery with conventional graphite anodes, the gravimetric energy density has been increased by up to 20 percent. The volumetric energy density of the cell chemistry is 680 Wh/l. The cobalt content has been further reduced. At the end of the year, a CLA model with a battery featuring lithium-iron-phosphate cathodes (LFP) will follow. The usable energy content is 58 kWh, while the volumetric energy density of the cell chemistry is 450 Wh/l.

Despite significantly increased charging power, the terms of the battery certificate for the EQA and EQB still apply to the all-electric CLA. For a total duration of eight years or up to a total distance of 160,000 km (whichever comes first), Mercedes-Benz guarantees that the maximum battery capacity of the high-voltage battery will not be less than 70 percent.

The CLA provides power storage for the home: prepared for bidirectional charging

The all-electric CLA is prepared for the networking of electric vehicles with the power grid. When the vehicle is connected to a compatible bidirectional DC charging station, it becomes an energy storage unit that can store, for instance, solar power for later use. More importantly, it can also serve as a power supplier, either Vehicle-to-Home (V2H) or Vehicle-to-Grid (V2G).

The bidirectional charging function will be available at a later date, after market launch, through an over-the-air update. The use of bidirectional charging may be subject to market-specific conditions regarding legislation and the requirements of energy providers.

Class-leading aerodynamics with a drag coefficient starting at 0.21

Low air resistance means high efficiency, making aerodynamic performance particularly important for electric vehicles. Reducing the drag coefficient by just 0.01 increases the long-distance range by about 2.5 percent. With a drag coefficient starting at 0.21, the all-electric CLA leads its segment.

The variation within the model range is minimal, partly due to the wide range of aerodynamically optimised wheels. This includes, for the first time, a two-tone full cover for alloy wheels, which improves the drag coefficient by up to two points compared to a conventional rim. Additionally, the aerodynamics team has optimised the wheel spoilers forward of the front and rear axles across all wheel sizes, minimising the impact of wheels and tyres on air resistance.

Around the grille and headlights, the joints are optimally positioned and partially sealed. The underbody concept from the EQS and EQE has been further developed. The very smooth underbody is almost completely closed, with even the control arms and tie rods covered. The rear wheel cover is fixed to the body, meaning there are no joints with surrounding components. It therefore does not move with the axle during, for example, compression. The CLA has a so-called impact management system to protect the battery, with fully integrated components that have also been aerodynamically optimised. To avoid aerodynamic compromises, there are two diffuser variants for the rear of the all-electric CLA: for models with and without a trailer hitch.

Comfort suspension with multi-link rear axle from the mid and upper class

The CLA comes as standard with a steel-sprung comfort suspension featuring a newly developed three-link front axle. The lower control arm comprises the transverse and thrust arms, both made of forged aluminium. As with a McPherson configuration, the strut guides the wheel and is directly connected to the steering knuckle. The third link, the tie rod, is part of the rack-and-pinion steering. The transverse steering gear is positioned in front of the wheel centre, leading to the desired self-steering behaviour and precise steering response. The steering knuckle, connecting the lower control arm with the strut and supporting the wheel and brake system, is made of cast aluminium. In addition to lightweight construction, high camber stiffness was prioritised for this component, creating the best conditions for good steering response and low noise.

At the rear is a newly developed multi-link axle. This high-quality suspension concept is well known from Mercedes-Benz vehicles from the mid- and full-size classes. The company is now also bringing it to this segment.

High level of active and passive safety – first centre airbag in this vehicle class

The all-new CLA is developed from the ground up with the latest safety aspects in mind. Mercedes-Benz thus remains a pioneer in active and passive safety in this segment. The goal is clear: with the CLA, Mercedes-Benz aims to offer the safest car in its class. The new standard safety assistance systems can prevent a variety of accidents. Should an accident occur, the crumple zones, robust passenger cell and restraint systems are designed to minimise the likelihood of serious injury.

New in the CLA and for the first time in this segment, Mercedes-Benz is installing a centre airbag as standard. It deploys between the driver and front passenger in the event of a severe side impact, depending on the severity of the accident and vehicle occupancy. The centre airbag is integrated into the driver's seat backrest.

Proven multi-stage high-voltage protection system and further developed battery early warning system

In addition to protecting the occupants of an electric vehicle as well as other road users, Mercedes-Benz places special emphasis on the protection of the energy storage system. An all-electric vehicle has, in addition to the familiar 12-volt system, a high-voltage system that includes the high-voltage battery and connected consumers, such as the electric motors for the drive and components like the air conditioning. Beyond legal

requirements, both the overall vehicle and the high-voltage battery, high-voltage (HV) lines, and other HV components must meet strict Mercedes-Benz standards.

In the all-new CLA, the battery housing is integrated into the crash concept as part of the vehicle structure. Additionally, for the new high-voltage battery generation, Mercedes-Benz has taken comprehensive precautions against potential thermal reactions. These include appropriate spacing between the high-voltage battery cells as wells as adaptations to the structure of the cells and cell modules. The enhanced early warning system not only alerts the occupants but also triggers additional protective measures within the vehicle. These include automatically closing side windows and ventilation flaps. A new sensor, positioned centrally in the high-voltage battery, monitors its status even when the vehicle is parked.

In the CLA, as with other models, Mercedes-Benz has implemented its multi-stage protection concept with eight elements of high-voltage safety. This ensures that there is no danger from electrical components for occupants, first responders and emergency services after an accident. This protection concept has already proven itself in other all-electric models from Mercedes-Benz, confirmed by findings from Mercedes-Benz Accident Research. In the event of a severe accident, the high-voltage system is automatically shut down, with a distinction made between reversible and irreversible shutdown.

Reversible shutdown occurs in minor accidents. If the driver attempts to restart the car after the automatic shutdown, an isolation measurement is automatically performed in the background. A restart is only possible if the system is error-free, ensuring that still-drivable vehicles remain operational. In severe accidents, where the vehicle is typically no longer drivable, the high-voltage system is irreversibly shut down. Irreversible means that only a specialist workshop can reactivate the vehicle.

During automatic shutdown, targeted discharging of the components ensures that they pose no danger. For rescue workers, there are also cut-off points where they can manually de-energise the high-voltage system.

New all-electric CLA reduces carbon footprint by 40 percent compared to its predecessor

The CLA is the forerunner of a new, innovative electric vehicle family from Mercedes-Benz. The carbon footprint of the new all-electric CLA is 40 percent smaller over the entire value chain compared to its non-electrified predecessor. By implementing further carbon-reduction measures in the supply chain and during battery charging, savings can increase to up to two-thirds.

About 40 percent of the aluminium used is produced in electrolysis plants powered by renewable energy, saving a total of approximately 400 kg of CO_2 per vehicle for the all-electric CLA. Various carbon reduction measures in the high-voltage cells also reduce the carbon footprint of the new battery generation by about 30 percent per cell compared to the preceding battery. In addition to net carbon-neutral[17] cell production, renewable energy is also used in the production of cathode, anode and cell housing materials.

As well as the interior materials, the thermoplastics in the new CLA also contain a high proportion of secondary materials. This adds up to four times more across the vehicle as a whole compared to its predecessor. A total of 50 percent of the secondary material in the thermoplastics comes from post-consumer recyclate. For example, the jack mounts are made entirely from recycled car bumpers. The frunk well has a recyclate content of around 70 percent.

[17] Net carbon-neutral means that carbon emissions that are not avoided or reduced at Mercedes-Benz are compensated for by certified compensation offsetting projects.

MB.CHARGE Public: integrated digital charging service

Mercedes-Benz groups all the functions of public charging into the digital extra MB.CHARGE Public[18] (formerly Mercedes me Charge), offering numerous exclusive benefits to its customers. Just one charging contract[19] gives them access to one of the world's largest charging networks. It also ensures they can always charge in the familiar user-friendly way, regardless of station operator. In the all-electric CLA, authentication is via the Mercedes-Benz app, the MB.CHARGE Public RFID card or directly via Plug & Charge[20] at participating charging stations. Each charging process is automatically billed through MB.CHARGE Public. Mercedes-Benz also ensures maximum cost transparency at public charging stations. Before charging, users can view the specific costs per kilowatt-hour or per minute and the estimated total cost for a full charge on the MBUX display or in the Mercedes-Benz app. Additionally, MB.CHARGE Public offers different tariffs and packages with discounted charging conditions depending on the region.

Mercedes-Benz is continuously expanding the charging network through its own activities to build public charging infrastructure worldwide. Around 45,000 charging points will be created by the end of the decade through the global Mercedes-Benz Charging Network and the joint ventures IONITY, IONNA and IONCHI in Europe, North America and China. These will also be accessible via MB.CHARGE Public.

Green Charging: Mercedes-Benz is committed to charging with renewable energy

Green Charging is an integral part of MB.CHARGE Public in Europe, Canada and the USA. If renewable energy is not yet available at the respective charging station, Green Charging uses green electricity certificates. These ensure that an equivalent amount of electricity from renewable sources is fed into the grid for charging processes. These are green electricity certificates from certified energy generation plants[21] that are less than six years old[22]. Wherever possible, the green electricity certificates are purchased and cancelled in the same country where the customer charges. This contributes to the further expansion of renewable energy.

Starting with the new generation of electric vehicles, Mercedes-Benz is extending its Green Charging initiative to private households. With intelligent home charging solutions, private customers can increase the share of renewable energy when charging their electric vehicles via a wallbox and reduce their carbon footprint.

[18] A personal Mercedes me ID and agreement to the Terms of Use for the Mercedes-Benz Digital Extras are required to use the services. In addition, the vehicle must be paired with the corresponding user account. Upon expiry of the initial term, the services can be renewed for a fee, provided they are at that point still offered for the corresponding vehicle.
[19] In order to use the MB.CHARGE Public digital extra, the customer will require their own separate charging contract with a selected third-party provider.
[20] With Plug & Charge, the charging process starts by plugging in the charging cable. The vehicle communicates the charging contract data directly to the charging station. A Mercedes me Charge contract is required for billing.
[21] EKOenergy in Europe, Green-e in North America
[22] Assured in all countries except for the United Kingdom and Poland

Maximum flexibility thanks to modular architecture

The all-new Mercedes-Benz CLA: high-tech hybrid models with 48-volt technology

- Future hybrids can drive electrically at urban speeds
- New four-cylinder engine from the FAME engine family with Miller-cycle combustion process
- New electrified eight-speed dual-clutch transmission with integrated electric motor
- New lithium-ion battery with 1.3 kWh energy content in flatpack design

All-electric models play a key role in implementing Mercedes-Benz's sustainable business strategy. However, the desires and mobility needs of customers in different regions of the world determine the pace of this transformation. Therefore, the all-new CLA will also be available by the end of the year as a hybrid with 48-volt technology and an electric motor integrated into the transmission. The modular architecture of the CLA model family allows Mercedes-Benz maximum flexibility in the drive concept and production.

Visually, the CLA hybrid closely resembles its electric counterpart, allowing customers to choose between the two drive configurations based on their personal driving profile and usage. One of the few distinguishing features is the CLA hybrid’s grille. It has a classic grille with the Mercedes-Benz star pattern in chrome, framed as standard by an LED light guide.

The highly efficient powertrain was developed by Mercedes-Benz engineers in Germany according to proven quality standards. The state-of-the-art combustion engine in the CLA hybrid will initially be available in three power levels. Buyers will have the choice between front-wheel drive and 4MATIC. Technical data and further details, including equipment, will follow later in the year before the sales launch.

CLA hybrid models can drive all-electrically and recuperate

The engine and transmission design is very compact thanks to the cylinder spacing and the side-by-side arrangement of the electric motor. The electric motor, inverter and transmission form a highly integrated unit. A newly developed 48-volt battery with lithium-ion technology offers an energy content of up to 1.3 kWh. Once again, the design is particularly compact: the battery cells and the DC/DC converter are integrated into the flatpack.

The electric motor provides intelligent support across the entire speed range. It significantly improves acceleration, especially at low engine speeds. At urban speeds and when less than 20 kW is needed, the hybrid models can drive using electric power alone. So-called electric sailing, i.e., efficient coasting with a decoupled drivetrain, is possible up to a speed of around 100 km/h. A special feature of the motor is its ability to recuperate in all eight gears, recovering up to 25 kW of energy.

Since the torque output of the combustion engine and the electric motor add up, the maximum torque is available over a wide speed range. Furthermore, the combustion engine can be started entirely by the electric motor and the disconnect clutch, eliminating the need for a conventional pinion starter. The start-stop function and switching between the two motors are almost imperceptible to the driver.

The electric motor, including the inverter, is integrated into a new, very compact eight-speed dual-clutch transmission (8F-eDCT). This development is called “eDCT” because the electric motor is integrated into the transmission, and control of the mechanical system is electrohydraulic. An electric motor serves both lines of the dual clutch. Power transmission and disconnection are achieved via two drive clutches and a disconnect clutch. The wide spread of the eight gear ratios also benefits efficiency, as it enables optimisation of the engine operating points.

New four-cylinder engine from the FAME engine family with Miller cycle combustion process

The combustion engine, developed by Mercedes-Benz, is a four-cylinder petrol unit with a 1.5-litre displacement . The engine, designated M 252, belongs to the Family of Modular Engines (FAME) and is suitable for a variety of vehicle applications.

Common features of the FAME engines include an all-aluminium crankcase with NANOSLIDE® technology and a cylinder head with a partially integrated exhaust manifold. They are also equipped with a turbocharger with a segmented turbine and switchable scroll connection. Other highlights are the compact charge-air path and the exhaust system mounted close to the engine. Its one-box design is prepared for future emission standards. The concept of the electric refrigerant compressor with 48-volt technology, adopted from the M 256, reduces friction and allows the vehicle to be air-conditioned when stationary and during electric driving.

For efficiency reasons, the petrol engine uses a combustion process based on the Miller cycle. The relatively early closing of the intake valves reduces throttling losses and allows a high compression ratio of 12:1. This design helps keep efficiency high and fuel consumption low, especially under partial load, which is very common in everyday driving. This also reduces NOx emissions.

The new engine-transmission unit has compact dimensions and is installed transversely between the steering knuckles. Another advantage is the exemplary NVH behaviour (Noise, Vibrations, Harshness). Conceptually, the M 252 is already at an advantage here because Mercedes-Benz uses four instead of three cylinders. Additionally, the engine has an extensive NVH package of foams and covers to reduce sound radiation. The CLA also features the double-bulkhead concept, known from higher vehicle classes. Furthermore, the bulkhead insulation has been extended into the sides of the A-pillar and the floor.

All-new CLA comes from the Rastatt plant

The CLA models with hybrid drive are produced flexibly on the same line at the Mercedes-Benz plant in Rastatt as their all-electric counterparts. Production is net carbon neutral[23]. The plant is supplied with 100 percent green electricity, most of which is purchased externally.

Rastatt is the lead plant in the production network for Mercedes-Benz vehicles in this segment, serving as a pioneer of the “Digital First” approach in the company’s global production network. In preparation for production of the new model, the extensive conversion of an existing assembly hall was virtually represented and commissioned for the first time using a digital twin. The all-new CLA also marks the first series-production applications of the Mercedes-Benz Operating System (MB.OS), the company's proprietary chip-to-cloud architecture. Vehicle software is no longer transmitted via various hardware modules but via a central server of the Mercedes-Benz Intelligent Cloud. In addition to the CLA, the A-Class, B-Class, compact GLA SUV and the all-electric Mercedes-Benz EQA are also produced at the site.

After the gradual ramp-up in Rastatt, Beijing Benz Automotive Co., Ltd (BBAC) will build the CLA for the Chinese market. In collaboration with the Hungarian Mercedes-Benz plant in Kecskemét, further models from the new vehicle family will follow after the start of CLA production.

[23] Net carbon-neutral means that carbon emissions that are not avoided or reduced at Mercedes-Benz are compensated for by certified compensation offsetting projects.

Emotional expression of athletic power

The new Mercedes-Benz CLA: design and dimensional concept

- More spacious than ever: more head and legroom, first modern Mercedes-Benz with a frunk
- Radiant front: sporty shark-nose design with illuminated grille and central star
- Sensual proportions: fastback silhouette stands for outstanding aerodynamics and efficiency
- New luxury experience: avant-garde interior with high-tech elements like the Superscreen

The new CLA is designed throughout for the electric and digital age at Mercedes-Benz. As the first model of an entirely new vehicle family, it embodies the next evolutionary step in the Mercedes-Benz design philosophy of Sensual Purity. The Concept CLA Class already previewed this dynamic appearance combined with extraordinary design elements: The production model is equally striking with an exciting interplay of intelligence and emotion, redefining desire.

With its fastback silhouette, the CLA stands for outstanding aerodynamics and efficiency. The long wheelbase (2,790 millimetres), short overhangs and a distinctive GT rear are an emotional expression of athletic power. The car's sporty proportions are enhanced thanks to a low greenhouse, long bonnet with power domes and large wheels up to 19 inches. The car's muscular and athletic shoulders start at the front wheel arches and extend to the sculptural rear. The flared wheel arches and wide track (front/rear: 1,605/1,574 millimetres) reinforce the dynamic impression.

The clear design language emphasises the sculpted surfaces with reduced lines and precise joints. The striking character lines on the flank create an interesting interplay of light and shade when viewed side-on. The powerful design conveys sporty confidence and modernity, giving the CLA a visual lightness. The meticulous attention to detail underscores the high quality and exclusivity of the new model.

More space at every seat and for luggage – the frunk returns after 90 years

At 4,723 millimetres, the new CLA is about four centimetres longer than its predecessor. The wheelbase has increased by over six centimetres to 2,790 millimetres. The driver and front passenger have slightly more legroom (plus 11 millimetres). Passengers in both seat rows also have more headroom: an increase of 16 and 28 millimetres (front/rear). This is due to the higher roofline and the standard-fit panoramic roof, which lets in plenty of light and creates a sense of freedom.

The CLA with EQ Technology is the first modern Mercedes-Benz with a frunk (front trunk). It offers 101 litres of additional load space – ideal for a luggage trolley, a crate of 0.33-litre bottles or the charging cable. This makes it bigger and more useful than in the Mercedes-Benz 130 (W 23) from the 1930s, which was the brand's first vehicle with a frunk. At the rear, the new electric CLA offers a luggage compartment with a volume of 405 litres.

Here are the dimensions:

		CLA	Predecessor	Difference
Exterior dimensions				
Length	mm	4,723	4,688	+35
Width	mm	1,855	1,830	+25
Width including exterior mirrors	mm	2,021	1,999	+22
Height	mm	1,468	1,439	+29
Wheelbase	mm	2,790	2,729	+61
Interior dimensions				
Max. headroom front	mm	1.039	1.023	+16
Max. headroom rear	mm	936	906	+28
Legroom front	mm	1,073	1,062	+11
Legroom rear	mm	854	861	-7
Elbow width front	mm	1,456	1,457	-1
Elbow width rear	mm	1,431	1,454	-23
Shoulder room front	mm	1,412	1,400	+12
Shoulder room rear	mm	1,359	1,372	-13
Boot volume	L	405	460	-55
Frunk volume (liquid)	L	101	-	+101

Brightens the day and night: panel with illuminated Mercedes-Benz pattern and headlights in star design
The sporty front end of the all-electric CLA features a shark-nose design. The highlight is the new panel with illuminated Mercedes-Benz pattern, which reinterprets the classic chrome grille. Seamlessly integrated into its surroundings, this design element not only includes the large iconic Mercedes-Benz star but also features a total of 142 chrome-effect stars, creating a distinctive brand signature. The illuminated grille greets and bids farewell to the driver with various animations. Depending on country-specific regulations, the central star may also be fully or partially illuminated.[24]

Full-LED headlights provide an emotional and striking appearance both day and night, as well as optimum illumination of the road. They are connected by a band of light. The innovative star design contributes to the unmistakable brand identity. With the optional MULTIBEAM LED headlights, the daytime running lights are designed in the shape of the Mercedes-Benz star. The standard LED High Performance headlights feature the star as a chrome-plated design element.

The frameless doors with chrome trim emphasise the sportiness and timeless elegance of the new model. The large panoramic roof comes as standard and brings plenty of light into the interior. The compact exterior mirrors are mounted on the beltline. The retractable door handles (optional in conjunction with KEYLESS-GO) are flush with the body and contribute to optimised aerodynamics.

The GT rear end gives the CLA a powerful presence. The star-shaped taillights are connected by a band of light, which is animated with coming-home and leaving-home scenarios. As is typical for sporty Mercedes-Benz vehicles, the license plate is positioned in the bumper. The rear diffuser is elegantly painted in high-gloss black, aerodynamically optimised and contributes to the model's excellent drag coefficient. Alloy wheels come in a choice of ten exclusive designs, ranging in size from 17 to 19 inches. All wheels have also been aerodynamically refined.

Best-in-class standard equipment

[24] In the USA, Canada, China and the Gulf states, the central star is fully illuminated. In western Europe and ECE as well as the rest of the world, the central star is partially illuminated (minus ring). Illumination is not available in South Korea and Taiwan.

With the all-new CLA, Mercedes-Benz offers even more upgraded standard equipment. Every CLA is delivered in the Progressive Line as standard. The equipment includes LED High Performance headlights, the Mirror Package, a multifunction leather steering wheel in a sport design, comfort seats in ARTICO man-made leather/fabric with seat heating and 4-way lumbar support, and the THERMATIC single-zone climate control with air vents for the second row. Four USB-C charging ports with a power output of 100 watts further enhance passenger comfort.

The highly successful AMG Line is available as an option, further emphasising the vehicle's sportiness. Exterior features include 18-inch alloy wheels, a front bumper with air intakes and a chrome splitter and a specific rear bumper. When the door is opened, drivers are greeted with an animated light carpet featuring a star pattern. The interior of AMG Line vehicles features sporty accents such as a sports leather steering wheel with a flattened rim and red contrasting stitching on the door panels. It also has sports seats in black ARTICO/MICROCUT and an AMG sports pedal set in brushed stainless steel with black rubber studs.

For a more exclusive appearance, the Night Package is available as an option. It can be combined with both the standard equipment and the AMG Line. It includes high-gloss black trim elements on the bumpers, E-line and beltline, a high-gloss black upper casing on the exterior mirrors and tinted rear windows. The package also includes specific 18-inch alloy wheels.

For customers who prefer even more sportiness, the AMG Line Plus is available for the first time. It adds additional design elements from the AMG Performance Programme to the AMG Line. These include a high-gloss black rear spoiler, illuminated high-gloss black door sills and exclusive 19-inch alloy wheels. Red MANUFAKTUR seat belts and the Night Package complete the AMG Line Plus.

Light-flooded ambiance: panoramic roof with heat protection coating fitted as standard

All CLA models come as standard with a large panoramic roof. This one-piece fixed glass roof has no central brace and extends seamlessly from the windscreen frame to the rear. This design provides a new interior experience with an almost unobstructed view upwards. It also contributes to more generous headroom in both seating rows compared to its predecessor.

Heat-insulating laminated safety glass protects against sunlight. The exterior surface is coated with a 250-nanometre thin infrared film that reflects long-wave radiation, reducing potential glare. For comparison, a human hair has a diameter of about 50,000 nanometres. The equally thin 200-nanometre Low-Emissivity (LowE) coating on the interior side of the panoramic roof reduces the emissivity of the glass and serves as heat protection. This design eliminates the need for a roller blind, creating an even airier impression.

New spatial experience: visual reduction to a few floating high-tech elements

The interior of the CLA offers a new luxury experience in this vehicle class. The previous sculptural automotive design has been replaced by a new design concept that follows the principle of reduction to the essentials. It de-emphasises the underlying structure and focuses on a few iconic high-tech elements. This radical reduction characterises the avant-garde style of the interior. The inspiration for the control elements came from modern product design in the consumer electronics sector.

The highlight of the interior is the optional, floating MBUX Superscreen, which extends across the entire interior width. Behind a large glass surface are the 26-centimetre (10.25-inch) driver display and the 35.6-centimetre (14-inch) central display (for display and control concepts, see separate chapter), both with LCD technology. After market launch of the CLA, the MBUX Superscreen will be available as an optional extra with an additional 35.6-centimetre (14-inch display) for the front passenger. If no passenger display is installed, a trim element with a star pattern graphic continues the glass look in this area. Depending on the equipment, a backlit version is also available.

Round air vents are integrated at either end of the MBUX Superscreen, enhancing the modern and sporty impression. Their rings appear to float in front of the funnel-shaped moulding. A flat central vent with a high-tech appearance replaces the usual louvres. Another extra is the head-up display. Approximately 2.8 metres in front of the vehicle, the driver sees a floating, virtual 31-centimetre (12.2-inch) image.

The doors offer a wow effect with their large centre panels, which likewise appear to float. This element makes the concave underlying structure recede into the background. Open storage compartments are integrated into the door panels. The pull handle in classic tubular design appears reduced, powerful and sporty. The switch for electric seat adjustment is also completely redesigned. Its body has a circular form and a high-quality galvanised surface finish.

The third highlight in the interior is the centre console. Appearing to float in mid-air, its high position enhances the sporty feel. From the armrest between the front seats, it reaches forward beneath the Superscreen. As in higher vehicle classes, it is split into two levels: The upper section offers an expansive, three-dimensional trim surface, available in a wide range of decorative finishes. Integrated into this trim element are a double cup holder and an optional wireless smartphone charging cradle.

New multifunction steering wheel with simplified controls

The CLA comes as standard with a new multifunction steering wheel. The switch panels on the left and right are capacitive and seamlessly integrated into the surface. The operation of the steering wheel has been changed compared to the previous generation: tactile aids around the symbols make orientation easier. In general, many functions have been removed from the control panel for better usability. Only a finger navigation pad for controlling the content on the driver display is now present on the right side. This enabled significant enlargement of the individual functional areas. Additionally, the mute function has been removed from the volume slider. It is now available as a separate symbol at the top of the right switch panel. The volume can be finely adjusted by sliding or pressing the – and + points, the latter with haptic feedback. For the first time in this vehicle segment, the steering wheels is also available in ivory beige.

Seats made from recycled materials in a luxurious layer design

Two types of seats are available in the new CLA: The standard-fit comfort seat is generously sized and invitingly designed. In the shoulder area, it features the so-called layer design familiar from higher vehicle classes. The sports seat also follows this design, where the layer design connects the seat surface and side bolsters into a single unit. The layer tapers upwards into the backrest and adopts the slim design of the headrest, which has an integrated look. It, too, appears to float and is height adjustable.

Both seats incorporate secondary materials throughout their construction – from the seat cover and seat foam to the substructure and metal components. Mercedes-Benz offers five upholstery options for the comfort seat, including black man-made leather, with backing fabric made from recycled PET bottles. These bottles are regranulated, spun into yarn and finally processed into textile. Sustainably produced and processed leather is also available. Every step of its production is considered – from cattle farming to the tanning process. The leather is chrome-free, tanned with mineral, synthetic or vegetable tanning agents such as coffee bean husks, chestnuts or extracts from other renewable raw materials.

The microfibre fleece MICROCUT is made from 100-percent recycled material. First, PET bottles are processed into regranulated yarns. Using a sophisticated microfibre process, these are used to create a high-quality and durable fleece that has the look and feel of suede. This material is used in selected AMG Line upholstery, on the seats as well as the centre panels and door armrests.

The floor covering is also made from secondary material. The Econyl yarn is produced from 100-percent recycled material.

Modern luxury reinterpreted: exclusive colours and trim elements with innovative surfaces

A balanced variety of colours and materials underscores the luxurious overall experience in the interior. The attractive and extensive range of exterior paints, as well as interior colours and materials, allows configuration of the CLA according to personal taste. Here are four examples:

- Two exclusive paint colours developed for the CLA: aqua mint uni and clear blue metallic
- Special interior accents: Leather in beech brown, available in the standard Progressive Line as well as the AMG Line.
- To emphasise the sporty character of the CLA: The AMG Line offers microfibre and ARTICO upholstery with a technical-looking pearl effect in black/clean white pearl. The Colour & Trim specialists have reversed the usual colour distribution on the seat, with the stronger colour now adorning the shoulder area. A textile strip in the centre of the seat and piping on the outer sides showcase the highest craftsmanship.
- The AMG Line also offers sporty-looking leather upholstery in black with green accents.

The selection of large, high-quality trim elements is equally varied, inspired by offerings from higher vehicle segments. In addition to surfaces made of open-pore wood, brushed aluminium and anodised-look coatings, a trim element made from paper, which is unique in the auto industry, is also available. It is made of cellulose and hemp fibres and is very robust. This high-quality decorative surface offers a completely new look.

Personalised ambient lighting: diverse settings for a cosy atmosphere

In typical Mercedes-Benz fashion, the ambient lighting enhances many areas, from the instrument panel to the rear doors. Indirect light sources emphasise the floating character of the three central components: Superscreen, centre console and door centre panel. This creates a special feel-good atmosphere in the interior. The many settings – 64 colours plus ten colour worlds, 20 brightness levels and three brightness zones – allow for optimal customisation.

Individual sound experience: optional Dolby Atmos and standard holistic “SoundExperience”

A Burmester® 3D Surround Sound System is available as an option. With Dolby Atmos, it enables an unparalleled multidimensional music experience. This sound system includes 16 speakers and an 850-watt amplifier. For the first time, silver chrome covers for the tweeters and midrange speakers further enhance the interior’s visual appeal.

Mercedes-Benz also offers a holistic “SoundExperience”. Various sound worlds allow for an individual acoustic setup. “SoundExperience” can now be conveniently selected as an app from the app grid. The range includes “Silver Waves”, “Vivid Flux”, “Serene Breeze” and Roaring Pulse” (AMG Line) as well as two new sound worlds:

- “Fractal Fusion” embodies a hedonistic, futuristic lifestyle. It combines nostalgic sounds of 80s arcade games and synthwave music with modern, vibrant synth textures.
- “Granular Fuzz” embodies an expressive, organic style. It emphasises simplicity and straightforwardness, combining fat guitar sounds, epic orchestral soundtrack elements and post-apocalyptic electronic effects.

“SoundExperience” can also be experienced while stationary: it changes startup, shutdown and welcome sounds in the interior, while locking and unlocking are accompanied by an event sound and the aura sound carpet. There is also a charging plug sound that confirms the correct connection and disconnection of the

vehicle to the charging station. If the vehicle is ready to start, the driver can use the accelerator pedal to generate simulated “revs” while stationary.

“SoundExperience” is available in all models of the new vehicle family, regardless of the performance level and audio system. The AVAS pedestrian warning sound can be set at one of two levels: discreet and full of character. Instead of the conventional warning beep when reversing, the CLA uses an optimised driving sound.

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Press information and digital services for journalists can be found on the **Mercedes-Benz UK media website** at mercedes-benz-media.co.uk.

Mercedes-Benz AG at a glance
Mercedes Benz AG is part of the Mercedes Benz Group AG with a total of around 175,000 employees worldwide and is responsible for the global business of Mercedes Benz Cars and Mercedes Benz Vans. Ola Källenius is Chairman of the Board of Management of Mercedes Benz AG. The company focuses on the development, production and sales of passenger cars, vans and vehicle-related services. Furthermore, the company aspires to be the leader in the fields of electric mobility and vehicle software. The product portfolio comprises the Mercedes Benz brand with Mercedes AMG, Mercedes Maybach and G Class with their all-electric models as well as products of the smart brand. Mercedes Benz AG is one of the world's largest manufacturers of high-end passenger cars. In 2024 it sold around 2,4 million passenger cars and vans. In its two business segments, Mercedes Benz AG is continually expanding its worldwide production network with more than 30 production sites on four continents, while gearing itself to meet the requirements of electric mobility. At the same time, the company is constructing and extending its global battery production network on three continents. As sustainability is the guiding principle of the Mercedes Benz strategy and for the company itself, this means creating lasting value for all stakeholders: for customers, employees, investors, business partners and society as a whole. The basis for this is the sustainable business strategy of the Mercedes Benz Group. The company thus takes responsibility for the economic, ecological and social effects of its business activities and looks at the entire value chain.

Technical data

Mercedes-Benz CLA 250+ with EQ Technology

Drive system and battery		
Drive		Rear-wheel drive
E-motor(s)	Type	Permanently excited synchronous machine (two-speed)
Output (peak)	kW	200
Torque (peak)	Nm	335
Battery type		Lithium-ion
Max. AC charging capacity	kW	11
AC charging time[25], three-phase (11 kW)	h	9
Max. DC charging capacity	kW	up to 320
DC charging time[26] at fast charging station	min	22
DC charging[27]: range after 10 minutes (WLTP)	km	285-325
Dimensions and weights		
Wheelbase	mm	2,790
Track width front/rear	mm	1,605 / 1,574
Length/width/height	mm	4,723/1,855[28] /1,468
Turning circle	m	11.21
Boot volume[29]	litres	405
Frunk volume (liquid)	litres	101
Kerb weight according to EC	kg	2,055
Payload	kg	455
Gross vehicle weight	kg	2,510
Performance; fuel consumption; emissions		
Acceleration 0-100 km/h	seconds	6.7
Maximum speed[30]	km/h	210
Combined energy consumption (WLTP)[31]	kWh/100 km	14.1-12.2
Combined CO_2 emissions (WLTP)[31]	g/km	0
Range (WLTP)[3131]	km	694-792
CO_2 class[31]		A

[25] The charging times correspond to 10-100% full charge when using a wallbox or public charging station (AC connection with at least 11/22 kW; 16/32 A per phase) at 23 degrees Celsius.
[26] The charging times correspond to 10-80 % charge when using a DC fast-charging station of category "K" or "L" according to EN17186 with 500 A charging current.
[27] At DC fast-charging stations with 500 amps based on the WLTP range
[28] Without exterior mirrors
[29] Based on guideline ISO 3832:2002-06. Boot volume may vary depending on optional equipment.
[30] Electronically regulated
[31] The specified values were determined in accordance with the prescribed WLTP (Worldwide harmonised Light vehicles Test Procedure) measurement method. The ranges given refer to the European market. The energy consumption and CO_2 emissions of a car depend not only on the efficient utilisation of the fuel or energy source by the car, but also on the driving style and other non-technical factors.

Mercedes-Benz CLA 350 with EQ Technology

Drive system and battery		
Drive		All-wheel drive
E-motor(s)	Type	Permanently excited synchronous machine (two-speed)
Output (peak)	kW	260
Torque (peak)	Nm	515
Battery type		Lithium-ion
Max. AC charging capacity	kW	11
AC charging time[32], three-phase (11 kW)	h	9
Max. DC charging capacity	kW	up to 320
DC charging time[33] at fast charging station	min	22
DC charging[34]: range after 10 minutes (WLTP)	km	275-315
Dimensions and weights		
Wheelbase	mm	2,790
Track width front/rear	mm	1,605 / 1,574
Length/width/height	mm	4,723/1,855[35] /1,468
Turning circle	m	11.21
Boot volume[36]	litres	405
Frunk volume (liquid)	litres	101
Kerb weight according to EC	kg	2,135
Payload	kg	440
Gross vehicle weight	kg	2,575
Performance; fuel consumption; emissions		
Acceleration 0-100 km/h	seconds	4.9
Maximum speed[37]	km/h	210
Combined energy consumption (WLTP)[38]	kWh/100 km	14.7-12.5
Combined CO_2 emissions (WLTP)[38]	g/km	0
Range (WLTP)[3831]	km	672-771
CO_2 class[38]		A

[32] The charging times correspond to 10-100% full charge when using a wallbox or public charging station (AC connection with at least 11/22 kW; 16/32 A per phase) at 23 degrees Celsius.
[33] The charging times correspond to 10-80 % charge when using a DC fast-charging station of category "K" or "L" according to EN17186 with 500 A charging current.
[34] At DC fast-charging stations with 500 amps based on the WLTP range
[35] Without exterior mirrors
[36] Based on guideline ISO 3832:2002-06. Boot volume may vary depending on optional equipment.
[37] Electronically regulated
[38] The specified values were determined in accordance with the prescribed WLTP (Worldwide harmonised Light vehicles Test Procedure) measurement method. The ranges given refer to the European market. The energy consumption and CO_2 emissions of a car depend not only on the efficient utilisation of the fuel or energy source by the car, but also on the driving style and other non-technical factors.