



Press Information
September 25, 2023

The new Mercedes-AMG GLC Coupe: Stylish design meets sporty driving dynamics

- Two powerful models available
- First SUV coupe with exclusive AMG E PERFORMANCE hybrid technology
- Electrified hand-built M139l AMG 2.0-liter four-cylinder engine with electric exhaust gas turbocharger
- AMG RIDE CONTROL suspension with adjustable damping and rear-axle steering
- AMG-characteristic exterior and interior design

Affalterbach. Mercedes-AMG presents the new AMG GLC Coupe. It completes the successful midsize series from the performance and sports car brand and sets another highlight in the model portfolio with its combination of dynamic elegance and characteristic AMG features. Striking proportions and expressive styling underline its unmistakable appearance, complemented by the sporty, elegant interior.

The AMG GLC Coupe model family comprises two powerful models. The GLC 63 S E PERFORMANCE Coupe is the brand's first performance hybrid SUV coupe, featuring a 671 hp system output. The GLC 43 Coupe features 416 hp and a brief boost of 13 hp via the belt-driven starter generator at lower engine speeds. The extensive standard equipment with rear-axle steering, all-wheel drive, AMG SPEEDSHIFT® MCT 9G transmission with wet start-off clutch and AMG RIDE CONTROL suspension with adaptive damping supports the dynamic driving experience.

"With the new Mercedes-AMG GLC Coupe, we are addressing customers who are looking for a sporty lifestyle and dynamic design coupled with impressive performance. The diverse and high-quality technical components guarantee the highest level of driving dynamics and pleasure. With the top model GLC 63 S E PERFORMANCE Coupe, we now also offer our innovative hybrid drive in this segment, which guarantees an extensive range of driving experience."

Michael Schiebe, CEO Mercedes-AMG GmbH and head of business units Mercedes-Benz G-Class & Mercedes-Maybach

The sporty silhouette with a flowing transition to the rear is the main feature of the new Mercedes-AMG GLC Coupe. The headlights connect to the top of the AMG-specific radiator grille and emphasize the width of the vehicle. The AMG front fascia with large air inlets, vertical fins and additional flics sets striking, independent accents. Precise side edges emphasize the sporty proportions and the powerful wheel arches.

Wheel arch trim painted in body color and the AMG side sill panels are harmoniously integrated into the exterior design. The confident appearance is also emphasized by the vehicle's wide track and flush-fitting wheels in 19-, 20- or 21-inch sizes.

The two-piece taillights visually widen the rear of the AMG GLC Coupe with a connecting element. The AMG-specific diffuser-look rear fascia (GLC 43) or additional diffuser board (GLC 63 S E PERFORMANCE), as well as the two twin tailpipe trims (round on the GLC 43, trapezoidal on the GLC 63 S E PERFORMANCE) reinforce the powerful aesthetic.

Sporty, elegant AMG interior elements

AMG seats in MB-Tex/microfiber with unique graphics and upholstery provide a sporty touch. Optional leather and Nappa leather upholstery with an embossed AMG crest on the front headrests is available. The interior can also be fitted with optional AMG Performance seats.

An AMG Performance steering wheel in Nappa leather (GLC 43) or Nappa leather/microfiber (GLC 63 S E PERFORMANCE) is equipped standard. It is flattened at the bottom, perforated in the grip area (Nappa leather) and fitted with aluminum shift paddles. The two round AMG DRIVE UNIT buttons enable quick and precise operation of various dynamic driving functions and the AMG DYNAMIC SELECT driving programs. The sporty, luxurious atmosphere is rounded off by AMG sports pedals, floor mats and illuminated door sills.

The MBUX infotainment system features AMG-specific displays and functions. These include the independent displays in the instrument cluster, central multimedia central display and optional head-up display. The AMG-exclusive "Supersport" style offers the option of showcasing driver-focused content in a vertical format. This includes a set-up menu that displays the current suspension or transmission settings. The driver can also have a navigation map or consumption data displayed.

AMG TRACK PACE (standard on GLC 63 S E PERFORMANCE, optional for GLC 43), the data logger for use on the racetrack, is also integrated. The software records more than 80 vehicle-specific data ten times per second, such as speed, acceleration, steering angle and brake pedal operation, while the vehicle is driven on a racetrack. There is also a display of lap and sector times as well as additional training and analysis tools.

Hand-built AMG 2.0-liter four-cylinder with electric exhaust turbocharger

The heart of the new Mercedes-AMG GLC Coupe models is the hand-built AMG 2.0-liter four-cylinder engine, which combines innovative technologies and high performance with exemplary efficiency. The engine remains true to a tradition typical of the brand. It was completely developed at the company's Affalterbach location and is manufactured there according to the "One Man, One Engine" principle. Mercedes-AMG combines the craftsmanship of its highly qualified employees with the most modern production methods of Industry 4.0 and a high level of digitalization.

The hand-built engine, known internally as M139l (l for longitudinal installation), is the world's first and only series-production engine to date with an electric exhaust gas turbocharger. The system is a direct derivative of the technology successfully used by the Mercedes-AMG Petronas F1 Team in the premier class of motorsport for many years. The new form of turbocharging provides particularly spontaneous response across the entire speed range. This leads to an even more dynamic driving experience and while also increasing efficiency.

The functional principle of the electric exhaust gas turbocharger in detail

A 1.6-inch thin electric motor is integrated directly on the shaft of the turbocharger between the turbine wheel on the exhaust side and the compressor wheel on the intake side. This directly drives the shaft of the turbocharger and is electronically controlled, accelerating the compressor wheel before the exhaust gas flow takes over the drive in a conventional manner.

This significantly improves the response directly from idle speed and across the entire rpm range. The combustion engine responds more spontaneously to accelerator pedal input, while the overall driving feel is significantly more responsive. In addition, the electrification of the turbocharger enables higher torque at low rpms, which increases agility and optimizes acceleration from a standstill. Even when the driver lifts off the accelerator or brakes, the technology is able to maintain boost pressure at all times to ensure a continuously direct response.

Compared to the GLC 43, the turbocharger in the GLC 63 S is significantly larger. This delivers a higher air flow rate and therefore more power. In addition, the integrated electric motor is powered by the 400-volt high-voltage system.

E PERFORMANCE Hybrid with 671 hp system output and up to 752 lb-ft system torque

In the GLC 63 S E PERFORMANCE Coupe, the M139l produces 469 hp at 6,725 rpm, making it the most powerful series-production four-cylinder engine in the world. The maximum torque of 402 lb-ft is available at 5,250-5,500 rpm. In the performance hybrid, the 2.0-liter engine is combined with a permanently excited synchronous electric motor, a high-performance battery developed in Affalterbach and the AMG Performance 4MATIC+ fully variable all-wheel drive.

The 671 hp system output and maximum system torque of 752 lb-ft enable impressive driving performance. Acceleration from a 0 to 60 mph takes just 3.4 seconds and only ends at an electronically limited 171 mph top speed.

The 201 hp electric motor is positioned on the rear axle and is integrated with an electrically shifted two-speed transmission and electronically controlled limited-slip rear differential in a compact Electric Drive Unit (EDU). Experts refer to this layout as a P3 hybrid. The lightweight high-performance battery is also located in the rear above the rear axle. This compact design has numerous advantages.

The electric motor acts directly on the rear axle and can therefore convert its power more directly into propulsion – for that extra boost when starting off from a standstill, accelerating or overtaking. The inherent design of the electric motor means that full torque is available almost instantaneously to provide particularly agile acceleration. In addition, the driver immediately experiences a noticeable increase in performance thanks to the integrated, electronically controlled limited-slip rear differential.

If wheel slip occurs at the rear axle, the drive power of the electric motor is also transferred to the front wheels as needed for more traction. The mechanical connection of the fully variable all-wheel drive makes this possible via the drive shaft and drive axles of the front wheels. The positioning at the rear axle improves the weight and axle load distribution in the vehicle. This forms the basis for the vehicle's confident handling.

The AMG concept offers very high recuperation efficiency, as the system allows only minimal mechanical and hydraulic losses from the engine and transmission. The automated two-speed transmission at the rear axle, with its specially calibrated gear ratio, ensures the spread from high wheel torque for agile starting to safe continuous performance at higher speeds. An electric actuator engages second gear at vehicle speeds up to 87 mph, which corresponds to the maximum speed of the electric motor of approximately 13,500 rpm.

Inspired by Formula 1™, developed in Affalterbach: the AMG High Performance battery

The development of the lithium-ion energy storage is inspired by technologies proven in the Mercedes-AMG Petronas F1 Team's Formula 1™ hybrid race cars. The AMG High Performance battery combines high power that can be called up frequently in succession with low weight to increase the overall performance of the vehicle. Added to this is the rapid energy draw and high power density.

107 hp continuous power and 201 hp peak output

The high-performance battery in the GLC 63 S E PERFORMANCE Coupe offers a capacity of 6.1 kWh, 107 hp continuous power and 201 hp peak power for ten seconds. Charging takes place via recuperation or the 3.7 kW on-board AC charger at a charging station, wallbox or household socket. The battery is designed for fast power delivery and absorption and rather than longest possible range.

Innovative direct cooling of the battery cells

The basis for the high performance of the AMG 400-volt battery is the innovative direct cooling. A high-tech coolant flows around all 560 cells and cools them individually. Every battery needs a defined temperature for optimal power delivery. If the energy storage unit becomes too cold or too hot, it temporarily loses noticeable power or must be turned down to prevent damage if the temperature level is too high. A uniform temperature control of the battery therefore has a decisive influence on its performance, service life and safety. The AMG system is designed to ensure even heat distribution in the battery.

Operating strategy: electrical power always available

The basic operating strategy is derived from the hybrid power pack of the Mercedes-AMG Petronas Formula 1 race car. As in the top class of motorsport, maximum propulsion is always available when the driver accelerates aggressively – for example, to accelerate powerfully out of corners or when overtaking. The electric power can always be called on and frequently reproduced through high recuperation performance and demand-based recharging.

Performance hybrid drive can precisely control traction

Another benefit of the hybrid drive is vehicle dynamics control. Instead of braking intervention by ESP® (Electronic Stability Program), the electric motor can also regulate traction as soon as a wheel signals too much slip. To achieve this, the intelligent control system reduces the drive torque of the electric motor, which is transmitted to the wheel via the limited-slip rear differential. As a result, ESP® does not have to throttle the combustion engine, enabling the engine to be operated at higher torque. This improves agility and the otherwise reduced power can be used to charge the battery.

GLC 43: 416 hp and 369 lb-ft of torque enable sporty driving performance

Innovative technology enables the 2.0-liter engine in the GLC 43 Coupe to produce 416 hp at 6,750 rpm and 369 lb-ft is at 5,000 rpm. Depending on the situation, the system also briefly provides an additional boost of 13 hp from the belt-driven starter generator (RSG) at lower engine speeds. The second generation RSG acts as a mild hybrid, providing this temporary boost of power as well as functions such as gliding and recuperation to maximize efficiency. With this 48-volt technology, the transitions between the start/stop and gliding functions are almost imperceptible.

The GLC 43 accelerates from a 0 to 60 mph in just 4.7 seconds. The top speed is electronically limited to 155 mph.

AMG SPEEDSHIFT® MCT 9G transmission with wet start-off clutch

Engine power is transmitted in both Mercedes-AMG GLC Coupe models via the AMG SPEEDSHIFT® MCT 9G transmission (MCT = Multi-Clutch Transmission), in which a wet start-off clutch replaces the torque converter. This reduces weight and, thanks to its lower inertia, optimizes response to accelerator pedal input, especially during spurts and load changes. The extensively tuned software ensures extremely short shift times as well as fast multiple downshifts if required. In addition, the double-declutching function in the “Sport” and “Sport+” drive programs delivers a particularly expressive shifting experience. There is also the RACE START function, which ensures optimal acceleration from a standstill. The ECO start/stop function is activated automatically in the “Comfort” drive program and the “Glide” function can be activated in “Individual” drive program.

In the GLC 43, the AMG Performance 4MATIC all-wheel drive has a permanent power distribution between the front and rear axles of 31 to 69 percent. The rear-biased design provides enhanced driving dynamics,

including higher lateral acceleration and improved traction when accelerating. In the GLC 63 S E PERFORMANCE, the AMG Performance 4MATIC+ fully variable all-wheel drive transfers the drive power to the road.

AMG DYNAMICS integrated with AMG DYNAMIC SELECT drive programs

The AMG DYNAMIC SELECT drive programs (five for the GLC 43, eight for the GLC 63 S E PERFORMANCE) enable a wide range of vehicle characteristics from comfortable to dynamic. The distinct driving modes offer an individual driving experience, precisely tailored to different driving conditions.

The integrated driving dynamics control “AMG DYNAMICS” is added as part of the AMG DYNAMIC SELECT drive programs. It expands the stabilizing functions of the electronic stability program ESP® with interventions to add agility to the steering characteristics and additional ESP® functions. When cornering at speed, for example, brief braking intervention on the inside rear wheel creates a defined yawing moment around the vertical axis for responsive and precise turn-in.

The extent and effectiveness of these interventions depend on the AMG DYNAMIC SELECT program selected, whereby the driver can determine the set-up in “Individual” mode. ESP® can be adjusted in three levels. “On” is the standard selection, which offers a high level of safety, adapted to the overall sporty character of the vehicle. “Sport” allows higher drift angles, while “Off” allows the system to be switched off completely use on closed courses and racetracks.

AMG RIDE CONTROL suspension with Adaptive Damping System

Both AMG GLC Coupe models are equipped with the AMG RIDE CONTROL steel spring suspension with Adaptive Damping System. It combines sporty driving dynamics with high level of comfort for long-distance journeys. The basis for this is the front axle, with specially developed steering knuckles and ball joints on the spring control arm, as well as the rear axle, which also features elastokinematics designed for dynamic handling. The Adaptive Damping System continuously adjusts damping on each individual wheel to the - current demand - always taking into account the preselected chassis level, driving style and road surface condition. In addition to an improvement in ride quality and comfort, this also leads to an increase in driving safety. Drivers can choose from three different damper maps (“Comfort,” “Sport” and “Sport+”).

AMG ACTIVE RIDE CONTROL active roll stabilization

Another feature makes a decisive contribution to the AMG-specific tuning for high driving dynamics: AMG ACTIVE RIDE CONTROL active roll stabilization, which is available in the GLC 63 S E PERFORMANCE. Instead of using conventional, rigid anti-roll bars, the system compensates for body movements electromechanically. For this purpose, the anti-roll bars on the front and rear axles are divided into two parts. In the center there is an electromechanical actuator in which a three-stage planetary gear is integrated. When the road surface is uneven or the driving style is moderate, the actuator actively separates the stabilizer halves, which increases ride comfort. During dynamic use, the stabilizer halves connect and are twisted against each other.

The system reduces rolling movements when cornering and enables more precise tuning of the steering and load change behavior. It also increases ride comfort when driving in a straight line as it compensates for one-sided road imperfections. Movements of the body can be actively and optimally adapted to the driving condition. This allows the driver to experience hallmark AMG driving characteristics in terms of dynamics, precision and feedback even more intensively.

In order to meet the high-performance requirements, the system is based on an additional 48-volt electrical system subnetwork. Another advantage compared to usual hydraulic-based systems is the significantly faster response. Added to this is the lower weight of the components compared to hydraulic solutions.

Three-stage AMG speed-sensitive steering and standard rear-axle steering

The steering layout of the Mercedes-AMG GLC Coupe models also contributes to increasing dynamics and comfort. The three-stage AMG speed-sensitive steering system features a variable steering geometry ratio that adapts to the selected drive program. At high speeds, the steering power assistance decreases; at low speeds, it increases continuously. As a result, comparatively little effort is required at low speeds as well as when maneuvering or parking, while the best possible control over the vehicle is maintained when driving faster. In the “Sport” and “Sport+” suspension settings, the steering wheel also provides significantly more feedback to the driver.

Active rear-axle steering is also standard. It operates with a maximum steering angle of 2.5°. Up to this point, The rear wheels turn in the opposite direction of the front wheels at speeds of up to 62 mph (variable depending on the AMG DYNAMICS setting). This virtually shortens the wheelbase, which results in significantly more agile turn-in, less steering effort and increased maneuverability. For example, the turning circle is noticeably reduced when turning or parking. At speeds above 62 mph (variable depending on the AMG DYNAMICS setting), the rear wheels turn parallel to the front wheels – up to a maximum of 0.7°. This virtual extension of the wheelbase has a positive effect on driving stability, leads to a quicker build-up of lateral force when changing direction and allows the vehicle to respond more directly to steering commands. The response of the rear-axle steering depends on the selected AMG DYNAMIC SELECT drive program.

AMG brake systems

The AMG sports brake system in the GLC 43 provides confident stopping and optimum control. Internally ventilated and perforated brake discs measuring 14.6 x 1.4 inch with 4-piston fixed calipers are mounted on the front axle, and 14.2 x 1 inch discs at the rear with 1-piston floating calipers.

The AMG high-performance composite brake system with 6-piston fixed calipers at the front (15.4 x 1.4 inch internally ventilated and perforated brake discs) and 1-piston floating calipers at the rear (14.6 x 1 inch internally ventilated and perforated brake discs) is fitted standard on the GLC 63 S E PERFORMANCE. The braking system impresses with short braking distances as well as maximum stability and fade-resistance under heavy use. It also offers a long service life and particularly fast response.

Numerous equipment packages make the Mercedes-AMG GLC models more individual

The AMG Night package features high-gloss black exterior mirror housings, AMG side sill trim inlays, shoulder trim, window surrounds and rear bumper trim. It also includes two black chrome twin tailpipe accents for the AMG exhaust system.

The AMG Night Package Plus adds dark chrome accents to the fins of the radiator grille as well as the badging on the fenders and rear of the vehicle, including the star at the rear.

The AMG Exterior Carbon Package includes elements in high-quality visible carbon for the A-wing of the AMG front fascia, inserts of the AMG side sill panels and trim strip in the AMG rear fascia.

The AMG Performance Studio Package provides an even sportier look for the GLC 43. The high-gloss black front splitter with flics on the sides along as well as the rear diffuser with diffuser board are a visual nod to motorsport. There are also additional flics for the air outlets in the rear fascia in high-gloss black.

Technical Data

Mercedes-AMG GLC 43 Coupe

Engine		
Number of cylinders/ arrangement		4/inline
Displacement	cc	1,991
Rated Output	hp	416
at engine speed	rpm	6,750
Rated torque	lb-ft	369
at engine speed	rpm	5,000
Compression ratio		10.0:1
Mixture formation		Combined direct gasoline injection and intake manifold injection, turbocharging by means of electrically assisted exhaust gas turbocharger
Drivetrain		
Drive system		AMG Performance 4MATIC all-wheel drive with rear-biased torque distribution (39% front : 61% rear)
Transmission		AMG SPEEDSHIFT® MCT 9G (automatic transmission with wet multi-disc start-off clutch)
Gear ratios		
1st/2nd/3rd/4th/5th/6th/7th/ 8th/9th gear		5.35/3.24/2.25/1.64/1.21/1.00/0.87/0.72/0.60
Reverse		4.80
Suspension		
Front axle	AMG RIDE CONTROL suspension with aluminum double wishbones, anti-squat and anti-dive control, lightweight coil springs and stabilizer bar as well as Adaptive Damping System	
Rear axle	AMG RIDE CONTROL suspension with aluminum double wishbones, anti-squat and anti-dive control, lightweight coil springs and stabilizer bar as well as Adaptive Damping System, active rear-axle steering	
Braking system	Hydraulic dual-circuit brake system; front 14.6 x 1.4" (370 x 36 mm) brake discs internally ventilated and perforated, 6-piston aluminum fixed calipers; rear 14.2 x 1" (360 x 26 mm) brake discs internally ventilated and perforated, 1-piston aluminum floating calipers; electric parking brake, ABS, Brake Assist, 3-stage ESP®	
Steering	Electromechanical speed-sensitive power steering with rack and pinion system, variable steering ratio (12.8:1 at dead center) and variable power assistance	
Dimensions		
Wheelbase	in	113.7
Front/rear track	in	65.6/65.6
Length/width w/o mirrors/height	in	188.7/75.6/63.1
Turning Circle	ft	42.3
Cargo capacity	cu-ft	19.2-52.6
Curb weight	lbs	TBA
Fuel tank capacity	gal	16.4
Performance		
Acceleration 0-60 mph	s	4.7 (est.)
Top speed	mph	155 (electronically limited)

Technical Data

Mercedes-AMG GLC 63 S E PERFORMANCE Coupe

Hybrid system		
Layout		P3: combustion engine in the front, electric motor at rear axle
System output	hp	671
System torque	lb-ft	752
Energy capacity	kWh	6.1
Electric range	mi	TBA
Engine		
Number of cylinders/ arrangement		4/inline
Displacement	cc	1,991
Output	hp	469
at engine speed	rpm	6,750
Torque	lb-ft	402
at engine speed	rpm	5,250-5,500
Compression ratio		9.0:1
Mixture formation		Combined direct gasoline injection and intake manifold injection, turbocharging by means of electrically assisted exhaust gas turbocharger
Electric motor		
Type		Permanently excited synchronous motor
Output	hp	201
Torque	lb-ft	236
Drivetrain		
Drive system		AMG Performance 4MATIC+ fully variable all-wheel drive
Transmission		AMG SPEEDSHIFT® MCT 9G (automatic transmission with wet multi-disc start-off clutch)
Gear ratios		
1st/2nd/3rd/4th/5th/6th/7th/ 8th/9th gear		5.35/3.24/2.25/1.64/1.21/1.00/0.87/0.72/0.60
Reverse		4.80
Suspension		
Front axle	AMG RIDE CONTROL suspension with aluminum double wishbones, anti-squat and anti-dive control, lightweight coil springs and stabilizer bar as well as Adaptive Damping System, active roll stabilization	
Rear axle	AMG RIDE CONTROL suspension with aluminum double wishbones, anti-squat and anti-dive control, lightweight coil springs and stabilizer bar as well as Adaptive Damping System, active roll stabilization, active rear-axle steering	
Braking system	Hydraulic dual-circuit brake system; front 15.4 x 1.4" (390 x 36 mm) brake discs internally ventilated and perforated, 6-piston aluminum fixed calipers; rear 14.6 x 1" (370 x 26 mm) brake discs internally ventilated and perforated, 1-piston aluminum floating calipers; electric parking brake, ABS, Brake Assist, 3-stage ESP®	
Steering	Electromechanical speed-sensitive power steering with rack and pinion system, variable steering ratio (13.1:1 at dead center) and variable power assistance	
Dimensions		
Wheelbase	in	113.7
Front/rear track	in	64.8/64.8
Length/width w/o mirrors/height	in	188.7/75.6/63.1
Turning Circle	ft	42.3
Cargo capacity	cu-ft	13.8-47.1
Curb weight	lbs	TBA

Fuel tank capacity	gal	17.2
Performance		
Acceleration 0-60 mph	s	3.4 (est.)
Top speed	mph	171 (electronically limited)

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About Mercedes Benz

Mercedes-Benz USA (MBUSA), headquartered in Atlanta, is responsible for the distribution, marketing and customer service for all Mercedes-Benz products in the United States. MBUSA offers drivers the most diverse lineup in the luxury segment with 18 model lines ranging from the sporty GLA SUV to the flagship S-Class and the dynamic all-electric Mercedes-EQ family. MBUSA is also responsible for Mercedes-Benz Vans in the U.S. More information on MBUSA and its products can be found at www.mbusa.com and www.mbvans.com.

Accredited journalists can visit our media site at www.media.mbusa.com.

Contacts:

Michael Minielly	michael.minielly@mbusa.com
Andrew Brudnicki	andrew.brudnicki@mbusa.com