



Press Information
March 11, 2024

Performance and efficiency in a new combination: the Mercedes-AMG E 53 HYBRID

- AMG-enhanced 3.0-liter engine and electric motor produce 577 hp combined system output
- Plug-in hybrid system enables high level of performance, driving dynamics and efficiency
- “Electric” AMG DYNAMIC SELECT drive program for pure electric driving

Affalterbach. With the new 2025 Mercedes-AMG E 53 HYBRID, the performance and sports car brand from Affalterbach introduces its latest plug-in hybrid model, combining outstanding performance and engaging driving dynamics with electric efficiency.

The AMG-enhanced 3.0-liter inline six-cylinder turbocharged engine and permanently excited synchronous electric motor generate a combined system output of 577 hp (604 hp with RACE START) and a combined system torque of 553 lb-ft. Acceleration from 0-60 mph takes place in 3.7 seconds (with RACE START). The top speed is electronically limited to 174 mph, and pure electric driving is possible up to 87 mph.

A 161 hp electric motor is integrated into the AMG SPEEDSHIFT® TCT 9G transmission. The high-power density of the hybrid power unit is achieved by the permanently excited internal rotor synchronous technology. The electric motor's 354 lb-ft of maximum torque is available from the first revolution and ensures agile acceleration. A 400-volt, 28.6 kWh battery is positioned at the rear of the vehicle below the trunk floor. 21.2 kWh is available for everyday driving, while the remaining energy is reserved for electric boost during high-performance driving.

The E 53 HYBRID is equipped with an 9.6 kW onboard AC charger as well as a 60 kW DC fast charger, which enables external charging of the battery from 10 to 80 percent in approximately 20 minutes.

Recuperation up to 120 kW is also possible. In D_{Auto} mode, the system automatically selects the level of recuperation power depending on the traffic situation. The driver can also select three levels of recuperation. In D-, strong recuperation allows for “one-pedal” driving similar to an all-electric vehicle.

The foundation of the sporty, efficient drive is the proven AMG-enhanced 3.0-liter inline six-cylinder turbocharged engine. In the E 53 HYBRID it delivers 443 hp – a 14 hp increase from the preceding model. Numerous enhancements to software and hardware contribute to the engine's heightened performance and highly dynamic response. This includes a new twin-scroll exhaust-gas turbocharger with higher boost pressure (21.8 psi instead of the previous 16 psi). Other changes include newly programmed software and additional front and wheel arch air inlets.

Reinforced body shell with numerous stiffening measures

To support the high driving dynamics of the E 53 HYBRID, the body shell has been revised for greater rigidity. A strut brace between the front suspension strut mounts stiffens the front structure and enables increased lateral dynamics. The thrust field under the engine increases steering precision by reducing the torsion of the front end. It is connected to the longitudinal beams by additional struts. On the rear axle, additional struts from the side members to the rear ensure greater stability and driving precision.

AMG and hybrid-specific design elements

The new Mercedes-AMG E 53 HYBRID is highlighted by a number of unique design elements. Wider front fenders (0.43 inch wider on each side compared to the Mercedes-Benz E-Class) are designed to accommodate the wider track width on the front axle. An AMG-specific radiator trim with vertical slats is illuminated as standard. The unique AMG front fascia also features powerfully shaped outer air inlets, each with two horizontal slats and a central A-wing. The large central lower inlet directs the air to the additional AMG front intake and there is also an external opening for the wheel arch intake. Hybrid-specific badges on the front fenders and rear indicate the electrified drive.

The vehicle's profile is characterized by flowing modelled surfaces without beads or edges, right down to the flush-mounted door handles. AMG-specific side skirt panels visually connect the front and rear wheel arches. AMG alloy wheels, almost flush with the body, emphasize power and dynamics. The flat, horizontally connected LED taillights with striking graphics in the stylized Mercedes star motif are precisely embedded in the powerful rear design. The arrangement gives the vehicle structure and underscores the vehicle's overall width. The final touch is the AMG spoiler lip on the trunk lid and AMG rear fascia with diffuser and twin round double tailpipe trims.

The E 53 HYBRID is fitted standard with 20-inch AMG alloy wheels. Optional 21-inch AMG forged wheels are also available.

Exclusive interior trim, optional MBUX Superscreen

The interior impresses with its harmonious design. New illuminated trim in grey open-pore ash wood with an AMG logo – exclusive to the E 53 HYBRID – is available standard. The MBUX Superscreen with 12.3-inch front passenger display is available as an option to further elevate the interior.

The MBUX infotainment system features AMG-specific displays and content, along with hybrid-specific displays and functions. This includes the charging menu and displays in the driver and central multimedia screens, which provide information about charge status, temperature of the high-voltage battery, electric range and more.

Power adjustable AMG sports seats for the driver and front passenger are equipped standard, which feature MB-Tex/microfiber upholstery with AMG-specific graphics and red contrast stitching. Customers can also choose from optional leather and Nappa leather upholsteries, as well as optional power adjustable AMG performance seats.

Another highlight is the AMG performance steering wheel in Nappa leather with AMG DRIVE UNIT steering wheel buttons, fitted standard.

AMG Performance 4MATIC+ fully variable all-wheel drive

The standard AMG Performance 4MATIC+ fully variable all-wheel drive provides optimal traction in all conditions. An electromechanically controlled clutch distributes torque variably to the front and rear axles in each AMG DYNAMIC SELECT drive program to deliver maximum traction, driving dynamics and safety.

New AMG RIDE CONTROL suspension with adaptive damping

The AMG development team designed and tuned the AMG RIDE CONTROL steel spring suspension with adaptive adjustable damping specifically for the requirements of the E 53 HYBRID with new hardware and software. It offers a balanced combination of adequate acoustic insulation for pure electric driving in combination with sporty driving dynamics. The independent front axle has a wider track width than the Mercedes-Benz E-Class. On the rear axle, the stiffer elastokinematics of the rubber mounts, which connect the independent control arms with the axle support, ensure greater tracking and camber stability.

The steel suspension with a sporty spring-damper setup and adaptive two-valve adjustable damping combines high driving dynamics with excellent ride comfort. The damping on each wheel adapts to the current driving situation and road conditions. This happens quickly and precisely via separate valves in the dampers for rebound and compression. Three distinct damper maps can be selected: “Comfort,” “Sport” and “Sport+,” with a noticeable differentiation between ride comfort and dynamic driving characteristics.

The tuning of the chassis, ESP®, AMG Performance 4MATIC+ fully variable all-wheel drive and steering, which is adapted to the hybrid drive, enables a balanced, dynamic driving experience.

AMG high-performance brake system

The AMG high-performance brake system features 14.6 x 1.4-inch internally ventilated brake discs with four-piston fixed calipers on the front axle and 14.2 x 1-inch brake discs on the rear axle with single-piston floating calipers.

An electromechanical brake booster ensures the brake system seamlessly combines electric recuperation with the hydraulic brakes. Depending on the driving situation and braking requirements, the vacuum-independent braking system automatically controls the balance between hydraulic braking and electric recuperation. This means maximum recuperation performance can be achieved more frequently and over a longer period of time. The system variably reduces the braking power of the hydraulic brakes, even with constant pedal pressure, to maintain a high level of recuperation during deceleration.

Standard active rear-axle steering

Active rear-axle steering contributes to agile handling and driving stability. Depending on the speed of the vehicle, the rear wheels steer either in the opposite direction of the front wheels at a maximum of 2.5 degrees (up to 60 mph) or in the same direction at maximum of 0.7 degrees (over 60 mph).

AMG DYNAMIC SELECT drive programs

Seven AMG DYNAMIC SELECT drive programs are precisely tailored to the new E 53 HYBRID. These range from efficient to highly dynamic. Parameters for the plug-in hybrid powertrain, transmission, steering, suspension and sound are specially tuned for each drive program. In addition to “Comfort,” “Sport,” “Sport+,” “Slippery” and “Individual,” two hybrid-specific drive programs are also included – “Electric” and “Battery Hold.”

By default, the E 53 HYBRID starts silently in the “Electric” drive program when the electric motor is switched on. The “Ready” icon in the instrument cluster indicates the vehicle is ready to drive. In “Electric,” purely electric driving is provided by the vehicle’s 161 hp electric motor. If the battery state of charge is too low or the driver requests more power via the accelerator pedal, the intelligent operating strategy automatically switches to the “Comfort” driving mode and the combustion engine starts up and almost imperceptibly takes over the drive power.

With the “Battery Hold” drive program, the combustion engine and electric motor run as the situation demands. The operating strategy keeps the battery state of charge constant. Use of the electric motor is limited and optimized for low energy consumption, which is compensated for by recuperation. Drivers can decide when to make full use the battery charge again simply by changing the drive program.

AMG DYNAMIC PLUS package

For an even more emotional driving experience, the AMG DYNAMIC PLUS package enhances the E 53 HYBRID with additional dynamic details and equipment.

- AMG performance steering wheel in available Nappa leather/microfiber with AMG DRIVE UNIT steering wheel buttons for quick operation of dynamic driving functions and AMG DYNAMIC SELECT drive programs.
- Larger high-performance composite brake system at the front with 15.4 x 1.4-inch brake discs and red six-piston fixed calipers.
- The electronically controlled locking rear differential provides even better traction out of corners, greater driving stability and load distribution in all driving conditions.
- Dynamic engine mounts enable a rigid or soft connection of the engine to the body to optimize the spread between dynamic and comfort. These consist of two interlocking cylinders connected to a magnetorheological fluid, which changes viscosity through a magnetic field. If the vibrations of the engine are to be transmitted to the body as little as possible to provide greater comfort, the magnet in the bearings is then switched off. If the driving situation requires higher performance to be prioritized, the magnetic field is continuously increased, and the connection between the engine and body becomes more rigid.
- RACE START allows the driver to achieve the best possible acceleration with the full output of the electric motor (161 hp) and the combustion engine (443 hp) as well as the maximum system torque.

Special “Edition 1” model with extensive equipment

An exclusive “Edition 1” model of the E 53 HYBRID is available only for the MY2025. It features MANUFAKTUR Moonlight White Magno exterior paint contrasted by black graphics along the vehicle’s profile. This is further complimented by 21-inch AMG forged cross-spoke wheels in matte black with high-sheen rim flanges and center caps with the “Edition” label in a laurel wreath. Black painted brake calipers with white AMG logos further sharpen the look.

The AMG Night Package and AMG Night Package II are also included. These add design elements such as the front splitter, beltline and window line trim, and twin tailpipe trims finished in high-gloss black. Other elements are finished in black chrome, namely the struts and surrounds of the radiator grille as well as the door handles, trim and badges on the front fenders and trunk lid, and the Mercedes star on the rear. Heat-insulating, dark-tinted glass for the rear windshield and the rear side windows is also fitted.

The AMG Carbon Exterior Package reinforces the dynamic aesthetic with a carbon fiber spoiler lip on the trunk lid and carbon-look exterior mirror housings. The AMG fuel tank cap in silver chrome with “AMG” lettering also underscores the special status of the “Edition 1.”

The interior is characterized by the contrast of black and yellow. AMG performance seats are upholstered in elegant black Nappa leather with yellow decorative stitching and “Edition 1” branding in the front headrests. Other highlights include exclusive AMG carbon trim elements with yellow fiber, an AMG performance steering wheel in Nappa leather/microfiber with yellow stitching, yellow seat belts and AMG door sill panels with yellow illumination. The final touch is the exclusive “Edition 1” engraving in the center console as well as specific AMG floor mats with yellow stitching and “Edition 1” branding.

A tailor-made AMG indoor car cover with the “Edition 1” logo is also included. With a breathable outer layer made of tear-resistant synthetic fabric and flannel anti-static inner fabric, it protects the vehicle from dust and scratches in the garage.

At A Glance

		Mercedes-AMG E 53 HYBRID
Number of cylinders / arrangement		6 / Inline
Displacement	cc	2,999
Combined system output	hp	577 (604 w/ optional RACE START)
Combined system torque	lb-ft	553
Engine output	hp	443
at	rpm	5,800-6,100
Engine	lb-ft	413
at	rpm	2,200-5,000
Electric motor output	hp	161
Electric motor torque	lb-ft	354
Battery capacity (total / usable)	kWh	28.6 / 21.2
Acceleration 0-60 mph (est.)	s	3.9 (3.7 w/ optional RACE START)
Top speed ¹	mph	155 (174 w/ AMG DYNAMIC PLUS Package)
Top speed (electric-only)	mph	87
Electric range (EPA)	mi	42

#

About Mercedes-Benz USA

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 vehicles from Mercedes-Benz. 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 media.mbusa.com.

Contacts:

Paul Harmon	paul.harmon@mbusa.com
Cathleen Decker	cathleen.decker@mbusa.com
Andrew Brudnicki	andrew.brudnicki@mbusa.com

¹ electronically limited