

New Porsche 911: T-Hybrid for significantly enhanced performance

28/05/2024 Porsche has fundamentally upgraded the iconic 911 sports car. The new 911 Carrera GTS is the first street-legal 911 equipped with a super-lightweight performance hybrid. The newly developed, innovative powertrain system, with 3.6 litres of displacement, delivers significantly improved driving performance.

The 911 Carrera GTS Coupé accelerates from zero to 100 km/h in 3.0 seconds and reaches a top speed of 312 km/h for the track. The 911 Carrera will also be available immediately upon the launch of the new model. It is powered by a lightly modified 3.0- litre twin-turbo boxer engine that is more powerful than its predecessors. The new 911 also features a revamped design, better aerodynamics, a fresh interior, upgraded standard equipment and expanded connectivity.

With the relaunch of this iconic model, Porsche has modernised four of its six model lines in just a few months: Panamera, Taycan, Macan and 911. “Our product portfolio is younger than ever and highly attractive,” says CEO Oliver Blume. “It offers our customers even more customisation options and exclusive experiences.”

Inspired by motorsport: innovative performance hybrid

For the new 911 Carrera GTS models, Porsche's engineers used knowledge gained from motor racing as the basis for designing the hybrid system. "We developed and tested a wide variety of ideas and approaches to arrive at the hybrid system that would suit the 911 perfectly. The result is a unique drive that fits into the overall concept of the 911 and significantly enhances its performance," says Frank Moser, Vice President Model Lines 911 and 718.

The lightweight and powerful T-Hybrid system has a newly developed electric exhaust gas turbocharger. An integrated electric motor, placed between the compressor and turbine wheel, instantaneously brings the turbocharger up to speed. This immediately builds up boost pressure. The electric motor in the exhaust gas turbocharger also functions as a generator. It generates up to 11 kW (15 PS) of electric power# . This energy is extracted from the exhaust gas flow. The wastegate-free electric turbocharger allows the use of only one turbocharger instead of the previous two, which ensures a more dynamic and responsive power delivery.

The powertrain also includes a permanent magnet synchronous motor integrated into the new, more powerful eight-speed dual-clutch transmission (PDK). Even at idle speed, it supports the boxer engine with extra drive torque of up to 150 Nm and provides a power boost of up to 40 kW. Porsche couples both electric motors to a lightweight and compact high-voltage battery. It corresponds in size and weight to a conventional 12-volt starter battery, but stores up to 1.9 kWh of energy (gross) and operates at a voltage of 400 V. For an optimised overall weight, Porsche has installed a lightweight lithium-ion battery for the 12 V on-board electrical system.

The heart of the T-Hybrid drive is a newly developed 3.6-litre boxer engine. The high-voltage system allows the air-conditioning compressor to be driven electrically and the belt drive to be omitted as a result, making the engine much more compact. This creates space above the power unit for the pulse inverter and DC-DC converter. An enlarged bore of 97 mm and an increased stroke of 81 mm increase the displacement by 0.6 litres compared to its predecessor. The engine has VarioCam camshaft control and a valve control with rocker arms. It maintains the ideal mixture ratio of fuel and air over the entire map (lambda = 1).

Even without electrical assistance, the boxer engine delivers 357 kW (485 PS) and 570 Nm of torque. In total, the system output is 398 kW (541 PS) and 610 Nm. The power increase over its predecessor is 45 kW (61 PS). The new 911 Carrera GTS also beats its predecessor when accelerating to 100 km/h, particularly off the line.

The 911 Carrera still features a 3.0-litre boxer engine with twin turbocharging. This engine, too, has been comprehensively revamped. Among other things, it has now adopted the intercooler from the Turbo models, which now sits directly under the rear lid grille, above the engine. The turbochargers in the new 911 Carrera were reserved for the GTS models in its predecessor. With these modifications, Porsche simultaneously achieves a power boost to 290 kW (394 PS), along with maximum torque of

450 Nm.

The new 911 Carrera Coupé goes from 0 to 100 km/h in 4.1 seconds (3.9 seconds with the Sport Chrono package) and boasts a top speed of 294 km/h for the track. Compared to its predecessor, this represents an improvement of 0.1 seconds.

Optimised suspension and active aerodynamics

The suspension of the 911 Carrera GTS has also been comprehensively revised. For the first time, rear-axle steering now comes as standard. It increases stability at high speeds and reduces the turning circle. Porsche has integrated the Porsche Dynamic Chassis Control (PDCC) anti-roll stabilisation system into the high-voltage system of the performance hybrid. This enables the use of an electro-hydraulic control system, which makes the system even more flexible and precise. The sports suspension with a variable damper system (PASM) and a ride height lowered by 10 mm provide characteristic GTS handling.

A total of seven 19-/20-inch or 20-/21-inch wheel designs are available for the new 911. Available for the first time in the 911 Carrera are Exclusive Design wheels with carbon blades that reduce the drag coefficient and therefore increase efficiency.

The 911 Carrera GTS models roll on 21-inch wheels with a width of 11.5 inches and 315/30 ZR 21 tyres at the rear as standard. At the front are 245/35 ZR 20 tyres on 8.5- inch wide 20-inch wheels. In line with the significantly enhanced performance, the wider footprint of the rear tyres improves the driving dynamics and traction of the new 911 Carrera GTS.

Sporty, streamlined exterior

Porsche has streamlined the exterior design of the 911 with carefully targeted updates. Most of these measures improve the aerodynamics and performance of the sports car. The changes include new, model-specific bumpers. For the first time, Porsche has also integrated all light functions into the now standard matrix LED headlights of the 911, with their characteristic four-point graphic. This makes it possible to omit the front driving lights and creates space for larger cooling vents in the front of the car.

On the 911 Carrera GTS models, the front end has five vertically arranged active cooling air flaps visible from the outside and another hidden flap on each side. For the first time in the 911, these are complemented by adaptive front diffusers in the underbody, which are controlled together with the cooling air flaps. These elements direct the air flow as required: when power requirements are minimal, closed flaps optimise aerodynamics. When power demand is high – for example in on-track situations – the flaps direct large amounts of air to the car's radiators. The sensors for the assistance systems are now located behind a high-gloss surface below the number plate.

Optionally, Porsche offers the new headlights with an HD matrix LED function with more than 32,000 light points. The high-performance high beam illuminates the roadto a distance of more than 600 metres. It also offers innovative additional functions such as a driving-mode-dependent dynamic cornering light, lane brightening, construction site and bottleneck light and a non-dazzling high beam that is precise to the pixel.

The redesigned light strip with an integrated arc and 'PORSCHE' logo makes the rear end of the 911 appear deeper and wider. A redesigned rear grille with five fins per side connects to the rear window to form a graphic unit that fades into the retractable spoiler below. The number plate is positioned higher, with a clearly structured rear bumper.

Model-specific exhaust systems are elegantly integrated into the striking diffuser fins. A sports exhaust system is optionally available for the 911 Carrera models. The 911 Carrera GTS models come standard with a GTS-specific sports exhaust system.

An optional aero kit further enhances the performance of the 911 Coupé. It includes a distinctive SportDesign front bumper with a unique front spoiler, matching side sill panels and a lighter, fixed rear wing. These components reduce lift and improve the grip of the sports car.

Fully digital cockpit and expanded connectivity

In the coupé variants, Porsche has designed the interior of the new 911 as a two-seater as standard. However, in Australia, the 2+2 seat configuration is set as the default but can be removed at no extra charge. In the cockpit, Porsche combines the familiar 911 design DNA with modern technology: the Porsche Driver Experience control concept focuses on the driver's axis and intuitive, faster operation.

Essential control elements have been arranged directly on or around the steering wheel. These include the standard driving mode switch, the revised driver assistance lever and, for the first time in the 911, a start button – to the right of the steering wheel, naturally. In the centre console storage compartment of the new 911, there is a cooled compartment for smartphones, with an inductive charging function for compatible phones.

For the first time, the 911 has a fully digital instrument cluster. The 12.6-inch curved display fits elegantly into the new control and display concept and can be extensively customised. It offers up to seven views, including an exclusive Classic display inspired by the traditional five-tube Porsche dial design with a central tachometer.

The Porsche Communication Management (PCM) system is still operated via the high-resolution central display with a 10.9-inch screen. However, the customisability of the driving modes and the operation of the driver assistance systems have been significantly improved.

The upgraded 911 also has new connectivity features. A QR code significantly simplifies the logging-on

process to the PCM with the Porsche ID. Apple CarPlay® is more deeply integrated into the car. If desired, it displays information in the instrument cluster and enables the operation of vehicle functions directly in the Apple® ecosystem, for example via the Siri® voice assistant. For the first time, video streaming is also optionally available while parked. Apps such as Spotify® and Apple Music® can be used as native apps in the PCM without a connected smartphone.

Australia

In Australia, all new 911 models will be additionally fitted with the following features as standard:

All variants:

- Tyre fit set
- Windscreen with Grey top tint
- Up to the Dreams exterior colour range
- Power steering Plus (No-Cost Option)
- Surround View with Active Parking Support
- Lane Change Assist
- Comfort Access
- BOSE Surround Sound System
- Digital radio

Select variants:

- 14-way Comfort seats with memory package (911 Carrera models only)
- Rear wiper as a No-Cost Option (911 Coupé models only)
- Adaptive cruise control (911 Carrera models only)
- Adaptive cruise control as a No-Cost Option (911 Carrera GTS models only)

Now available to order from $280,500##

The new 911 Carrera can be ordered now as a Coupé and Cabriolet with rear-wheel drive. For the 911 Carrera GTS, all-wheel drive and the Targa body variant (exclusively offered with all-wheel drive) are also available.

Both model variants are equipped with Porsche Doppelkupplung (PDK) as standard.

The new 911 Carrera Coupé starts at $280,500##

The new 911 Carrera Cabriolet starts at $303,800##

The new 911 Carrera GTS Coupé starts at $381,200##

The new 911 Carrera 4 GTS Coupé starts at $401,300##

The new 911 Carrera GTS Cabriolet starts at $417,400##

The new 911 Carrera 4 GTS Cabriolet starts at $437,900##

The new 911 Targa 4 GTS starts at $437,900##

The price of the optional aero kit package for the 911 Carrera GTS is $5,700##

Deliveries for all models in Australia are expected during Q1 2025.

Info

Published figures should only be used for the purpose of comparison between vehicles. Information provided and images displayed on our website or links from our website may relate to models, performance characteristics, optional extras and features only available in overseas models of the vehicle and must not be relied upon as they may be unavailable in Australia. Please note, product changes may have been made since the production of any content. Please contact an Official Porsche Centre for specific information on current data, vehicles, performance characteristics, optional extras and features available in Australian delivered vehicles.

PS (PferdeStärke, German for horsepower) is the standard unit used in the European Union to measure the power output of a motor in 'metric horsepower'.

Price is the recommended retail price before statutory on-road and dealer delivery charges, which vary from State to State and between dealers. Driveaway pricing is available via the Porsche Car Configurator at Porsche.com.au. All prices shown are based on a standard specification vehicle with no optional equipment (unless otherwise selected). Final prices may vary from dealer to dealer and according to individual circumstances. Prices are subject to change without notice. Please contact an Official Porsche Centre to obtain specific information about prices, vehicles and features.

Consumption data

911 Carrera GTS (WLTP)*: Fuel consumption combined: 10.6 – 10.1 l/100 km; CO_2 emissions combined: 242 – 230 g/km; CO_2 class: G

911 Carrera Cabriolet (WLTP)*: Fuel consumption combined: 10.3 – 10.1 l/100 km; CO_2 emissions combined: 235 – 231 g/km; CO_2 class: G

911 Targa 4 GTS (WLTP)*: Fuel consumption combined: 10.8 – 10.5 l/100 km; CO_2 emissions combined: 245 – 239 g/km; CO_2 class: G

*Further information on the official fuel consumption and the official specific CO_2 emissions of new passenger cars can be found in the "Leitfaden über den Kraftstoffverbrauch, die CO_2-Emissionen und den Stromverbrauch neuer Personenkraftwagen" (Fuel Consumption, CO_2Emissions and Electricity Consumption Guide for New Passenger Cars), which is available free of charge at all sales outlets and from DAT (Deutsche Automobil Treuhand GmbH, Helmuth-Hirth-Str. 1, 73760 Ostfildern-Scharnhausen, www.dat.de).

Video

https://newstv.porsche.com/porschevideos/281301_en_3000000.mp4
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