The new Porsche 911

27/11/2024 The new Porsche 911

Porsche has comprehensively upgraded the iconic 911 sports car. The new 911 Carrera GTS (911 Carrera GTS: Fuel consumption* combined (WLTP) 11.0 – 10.5 l/100 km, CO emissions* combined (WLTP) 251 – 239 g/km, CO class G , CO class weighted combined G) is the first road-approved 911 equipped with a super-lightweight performance hybrid system. The newly developed, innovative powertrain system with 3.6 litres of displacement delivers a significantly enhanced 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. The 911 Carrera (911 Carrera: Fuel consumption* combined (WLTP) 10.7 – 10.1 l/100 km, CO emissions* combined (WLTP) 244 – 230 g/km, CO class G , CO class weighted combined G) is also available right from market launch. It is powered by a 3.0-litre twin-turbo boxer engine, which has been modified down to the finest detail and, as a result, produces more power than its predecessor. The new 911 is also being launched with a revamped design, with a refreshed interior, upgraded standard equipment, and enhanced connectivity.

With the relaunch of its iconic model, Porsche has updated four of its six model lines within 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 turbocharger. An integrated electric motor, positioned between the compressor and turbine wheel, spools up the turbocharger at lightning speed when called upon. This immediately builds up boost pressure. The electric motor in the exhaust turbocharger can also function as a generator. In this case, the eTurbo generates up to 11 kW (15 PS) of electrical power from the energy of the exhaust gas flow. The wastegate-free electric turbocharger enables a single turbocharger configuration – instead of the twin-turbo format previously used – but with an even more dynamic and responsive power delivery.

The powertrain also includes a permanently excited synchronous motor integrated into the new, strengthened eight-speed dual clutch transmission (PDK). It assists the boxer engine from idle speed with a drive torque of up to 150 Nm and up to 40 kW of power. Porsche couples both electric motors to a lightweight and compact high-voltage battery. It is roughly the same size and weight as a conventional 12-volt starter battery but stores up to 1.9 kWh of energy (gross) and operates at 400 volts. 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 powered electrically. Eliminating the belt drive makes the engine much more compact. Instead of using a separate starter motor, the engine is started by the HV system. This also powers the air conditioning compressor electrically. This creates space above the 110-millimetre-shallower power unit to install pulse inverters and DC-DC converters. An enlarged bore of 97 mm and lengthened stroke of 81 mm increase the displacement by 0.6 litres compared to its predecessor. The engine has VarioCam variable valve timing and a valve actuation with roller cam followers. It maintains the ideal air-fuel mixture ratio over the entire map (lambda = 1).

Even without electric 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 – a power increase of 45 kW (61 PS) compared to before. The new 911 Carrera GTS outperforms its predecessor in acceleration, particularly off the line. The efficient performance hybrid delivers highly dynamic driving characteristics while at the same time reducing CO emissions, with a significantly lower additional weight compared to plug-in hybrid vehicles. The weight increase over its predecessor is a mere 50 kilograms.

The 911 Carrera continues to be powered by a twin-turbo 3.0-litre boxer engine. This engine, too, has been comprehensively revised. Among the features carried over from the Turbo models is the charge-air cooler, whichremains located above the engine directly under the rear grille. The turbochargers in the new 911 Carrera originate from the GTS models from the previous generation. With these modifications, Porsche achieves both a reduction in emissions and an increase in power to 290 kW (394 PS), with a 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. Compared to its predecessor, this marks an improvement of 0.1 seconds and 1 km/h, respectively.

Optimised chassis

The chassis of the 911 Carrera GTS has also been comprehensively updated. For the first time, rear-axle steering now comes as standard. It increases stability at high speeds and reduces the turning circle. Porsche is integrating the Porsche Dynamic Chassis Control (PDCC) roll stabilisation feature 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 versatile and precise. The sports suspension with variable damper system (PASM) and 10 mm-lower ride height also ensures the 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. At the rear, the 911 Carrera GTS models feature 21-inch wheels with a width of 11.5 inches as standard, fitted with 315/30 ZR 21 tyres. At the front are 245/35 ZR 20 tyres on 8.5-inch-wide 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.

Dynamically streamlined exterior

Porsche has streamlined the exterior design of the 911 with carefully selected updates, many of which improve the aerodynamics and overall performance of the sports car. The changes include new, model-specific front aprons. Porsche is also integrating all frontal lighting functions into the Matrix LED headlights of the 911 with their characteristic four-point look, which now come as standard. This makes it possible to omit the ancillary front lights and creates space for larger cooling vents in the front of the car.

Each side of the front end of the 911 Carrera GTS models features five vertically positioned active cooling air flaps visible from the outside, as well as an additional, concealed flap. For the first time in the 911, these are complemented by adaptive front diffusers in the underbody panelling, which are controlled in combination 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 below the number plate in the centre air intake.

An optional Aerokit further enhances the performance of the 911 Coupé. It includes, among other things, a distinctive Sport Design front apron with a separate front spoiler, matching side skirts and a lightweight fixed rear wing. These components reduce lift and improve the grip of the sports car.

As an option, Porsche offers the new headlights with HD-Matrix LED technology featuring more than 32,000 light points. The high-performance high beam illuminates the road to a distance of more than 600 metres. It also offers innovative additional functions such as a driving-mode-dependent dynamic cornering light, lane brightening, roadworks and narrow-lane lighting, and a pixel-precise non-dazzling high beam.

The redesigned light strip with an integrated light arc and 'PORSCHE' lettering makes the rear end of the 911 appear deeper and wider. A redesigned rear grille with five fins on each side combines with the rear window to form a visual unit that merges into the retractable spoiler below. The number plate is positioned higher, with a neatly structured rear bumper. Model-specific exhaust systems blend elegantly into the lower rear section. A sports exhaust system is available as an option for the 911 Carrera models. The 911 Carrera GTS models come with a GTS-specific sports exhaust system as standard.

Fully digital cockpit and enhanced connectivity

In the Coupé variants, Porsche has designed the interior of the new 911 as a two-seater as standard. A 2+2 seat configuration is available as an option at no extra charge. In the cockpit, Porsche combines the familiar 911 design DNA with the latest technology: the Porsche Driver Experience control concept focuses on intuitive, fast operation. Essential control elements have been positioned directly on or around the steering wheel. These include the mode switch (fitted as standard), the redesigned driver assistance lever and – for the first time in a 911 – a start button, as a nod to GT racing cars, located to the left of the steering wheel, of course. The storage compartment in the centre console of the new 911 features a tray with wireless charging for smartphones.

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 based on the traditional design with five round dials, including a central rev counter.

The Porsche Communication Management (PCM) system continues to be operated using the high-resolution central display with a 10.9-inch screen. However, the customisation options for 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 login process to the PCM using a Porsche ID. Apple CarPlay® is more deeply integrated into the car. If desired, it

displays information in the instrument cluster and can facilitate the operation of vehicle functions directly in the Apple® ecosystem, for example, by using 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 smartphone connected.

MEDIA ENQUIRIES

Oliver Hilger

Spokesperson 911 and 718
+49 (0) 170 / 911 3915
oliver.hilger@porsche.de

Consumption data

911 Carrera
Fuel consumption / Emissions

WLTP*
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CO class weighted combined G Class

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*Further information on the official fuel consumption and the official specific CO emissions of new passenger cars can be found in the "Leitfaden über den Kraftstoffverbrauch, die CO-Emissionen und den Stromverbrauch neuer Personenkraftwagen" (Fuel Consumption, COEmissions 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).

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