



PORSCHE



The new Porsche 911 GT3

Press Kit

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Summary

The new 911 GT3 with motorsport engine and even more performance

The Porsche 911 GT3 delivers motorsport-like performance, a systematic lightweight construction and an unfiltered driving experience. In the new generation of the radical 911, the connection between everyday driving and the racetrack is even more intense. At the heart of the latest enhancement beats a four-litre flat engine. The high-revving naturally aspirated engine with 368 kW (500 hp) is virtually a carbon copy of that in the thoroughbred 911 GT3 Cup racing car. The redesigned chassis with rear-axle steering and the systematic lightweight construction are specifically configured to convert the engine power into superior driving dynamics. An optional six-speed sports manual transmission is also available for the first time in addition to the standard Porsche PDK transmission.

- Engine** The four-litre naturally aspirated engine produces 368 kW (500 hp) and produces 460 Nm of torque. This represents an increase of 25 hp and 20 Nm in comparison to the predecessor model. Deliberately optimised for higher engine speeds, the six-cylinder engine can reach up to 9,000 rpm and is ideal for sporty driving.
- Performance** The weight-to-power ratio of 3.88 kg/kW (2.86 kg/hp) is almost at motorsport levels. The high-performance 911 can accelerate from zero to 100 km/h in 3.4 seconds. Its top speed stands at 318 km/h with PDK, and 320 km/h with manual transmission.
- Powertrain** The standard seven-speed PDK transmission is optimised for use on the track. If preferred, a lighter, manual six-speed transmission is available. Both transmissions are combined with rear differential locks (PTV Plus/PTV).

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- Chassis** Optimised spring and damper tuning improves the lateral dynamics. The Porsche Active Suspension Management (PASM) shock-absorber system delivers the perfect balance of comfort and sportiness. The rear axle steering improves agility when driving around bends, while also ensuring stability when manoeuvring at high speeds.
- Design and aerodynamics** The carbon rear wing – a characteristic, iconic feature of Porsche GT sports cars – is situated 20 millimetres higher in the air flow than on the predecessor model, thus generating greater downforce. The front and rear ends have been aerodynamically optimised and are constructed from lightweight polyurethane to reduce weight.
- Interior** The GT sports steering wheel and Sports seats Plus with extended side bolsters deliver the true 911 GT3 driving experience. An optional Clubsport package – including roll cage, six-point racing harness and fire extinguisher – is also available.
- Infotainment** The Porsche Track Precision app, included as standard, is accessible via a smartphone and provides drivers with detailed performance data regarding lap times, for example. The PCM is connected to the Internet via the Connect Plus module – also delivered as standard – and offers access to Porsche Connect services.
- Production** The 911 GT3 is developed on the same racing track and manufactured on the same production line as the racing cars.

New naturally aspirated engine producing 368 kW (500 hp) and a motorsport chassis

A 911 for the road and the race track: The new Porsche 911 GT3

The 911 GT3 is pure Porsche. It bridges the gap between motorsport and road driving, truly reflecting the core of the brand: successful on the race track, reliable in daily life. The new 911 GT3 strikes the balance like almost no other. This is all thanks to the completely new, six-cylinder naturally aspirated engine with 368 kW (500 hp), the high-speed engine concept, the revised chassis with near-motorsport tuning and the systematic lightweight construction. With a four-litre flat engine, the 911 GT3 generates its power using the same engine as the thoroughbred 911 GT3 Cup racing car. Developed on the same test track and manufactured on the same production line as the racing car, Porsche's motorsport technology has once again been incorporated into a road-approved sports car. As a result, Porsche's most successful GT sports car delivers an emotional mix of high performance and unfiltered driving feel.

The majority of GT drivers also like to take their sports cars for a spin on the race track, which is where the new 911 GT3 really comes into its own thanks to a weight-to-power ratio of 3.88 kg/kW (2.86 kg/hp). With a seven-speed double-clutch transmission (PDK) that has been specifically tuned for the GT3 as standard, the two-seater weighs in at 1,430 kg with a full fuel tank and can accelerate from 0 to 100 km/h in 3.4 seconds. It boasts a top speed of 318 km/h. For those who love pure unadulterated driving, Porsche also offers the 911 GT3 with a six-speed sports manual gearbox. This allows the high-performance 911 to sprint from 0 to 100 km/h in 3.9 seconds and reach a top speed of 320 km/h.

The chassis of the new 911 GT3 benefits from Porsche's motorsport experience and has been re-tuned for even better driving dynamics. The two-seater sits around 25 millimetres lower than the 911 Carrera S. In addition to the further refined basic design, the chassis also boasts superior handling characteristics, thanks predominantly to the active rear-axle steering. Depending on the speed, the rear wheels turn either opposite to the front wheels or in the same direction, which improves agility and stability. Other features that improve the car's driving dynamics include the dynamic engine mounts and the rear differential lock (Porsche Torque Vectoring, PTV/PTV+).

When it comes to its appearance, the 911 GT3 leaves little doubt as to its purpose. The dominant carbon rear wing emphasises the fact that the sports car's form is determined by aerodynamics. The lightweight front end and front spoiler have been designed for a better air flow. The aerodynamic enhancement is also evident on the lightweight rear end with exhaust air openings and on the new diffuser.

Engine

High-speed racing engine producing 368 kW (500 hp)

At the heart of the new 911 GT3 beats a thoroughbred motor racing engine. The main development aims for the high-speed engine were performance and stability for heavy use on racing circuits. The naturally aspirated six-cylinder flat engine with four-litre displacement generates extremely dynamic power in the 911 RSR, as well as the 911 GT3 R and 911 GT3 Cup. The machine is the most powerful naturally aspirated direct-injection engine and has the greatest displacement that Porsche has ever produced for a six-cylinder flat engine on the road. It produces 368 kW (500 hp) of power and 460 Nm of torque. This represents an increase of 25 hp and 20 Nm when compared to the previous model with 3.8-litre displacement. The power curve peaks at 8,250 rpm, while maximum torque is achieved at 6,000 rpm.

The engine is characterised by its high-speed concept: The crankshaft spins up to 9,000 times a minute, which is truly extraordinary, even for a sports car engine. High engine speeds enable greater power output. To ensure precise gas exchange even at high speeds, the Porsche engineers developed “rigid valve control”. This means that the rocker arms are not supported on hydraulic balancing elements, but situated on axles. The correct valve clearance is set using replaceable shims in the factory, meaning no subsequent re-adjustment is required. The rigid valve drive also reduces friction losses.

The variable inlet and outlet camshaft control continues to be operated by the Vario Cam system as before. The electronic engine management system uses the variable valve control to regulate the valve timing depending on the engine speeds and load conditions. This enables high running quality and, above all, high performance and torque values throughout the speed range.

Another characteristic of the power output is the high compression ratio of 13.3:1. With its basic engine, the powertrain of the GT3 delivers all the features typical of motorsport engines. This includes the dry-sump lubrication with separate oil tank, titanium connecting rod, and redeveloped crankshaft with greater rigidity and enlarged bearing dimensions. A central oil feed ensures optimum oil supply to the connecting-rod bearing. Defoaming the oil using a centrifuge before feeding the oil into the separate oil tank is also an innovation and originates from motorsport.

Together with the sports exhaust system, the plastic variable intake manifold with two switchable resonance flaps ensures an efficient charge cycle. The benefit for the driver is the highly consistent power and torque application across the entire engine speed range – not to mention the thrilling sound.

Transmission

Double-clutch transmission for the fastest lap time; manual transmission for the purists

For the first time, Porsche offers two transmission variants for the 911 GT3. For those who want to achieve the fastest-possible lap times, the Porsche Doppelkupplung (PDK) with seven gears is the perfect choice and is delivered as standard. Alternatively, the new high-performance sports car is also available with a manual six-gear transmission for no extra charge.

New GT sports manual transmission with six gears

A shorter shift lever, short shift paths, precisely engaging gears and six optimally-tuned gears: For the purists among the 911 GT3 drivers, Porsche has developed the new GT sports manual transmission with dual-mass flywheel. The transmission ratio of the six gears is precisely tuned to the power development of the engine and offers particularly sporty shifting characteristics. The automatic intermediate acceleration function ensures sporty gear changes when downshifting. It is activated via the SPORT button on the centre console, delivering highly dynamic shift operations from faster synchronisation of the gear wheels – ensuring an even more emotional driving experience on winding roads.

Unlike the PDK transmission, the manual transmission model transfers the power to a mechanically-controlled rather than electronically-controlled rear-differential lock (PTV) with locking values of 30/37 per cent (traction/overrun). Another advantage: The combination of manual transmission and mechanically-controlled differential lock weighs around 15 kg less than the PDK variant. This reduces the empty weight to 1,413 kg, thus increasing the weight-to-power ratio to 3.84 kg/kW (2.83 kg/hp). The high-performance 911 therefore sprints from zero to 100 km/h in just 3.9 seconds.

PDK designed for even faster lap times

The PDK is part of Porsche motorsport history. In 1986 and 1987, the Porsche 962 was the overall victor at Le Mans using a double clutch transmission. Today, the Porsche Doppelkupplung sets new benchmarks for standard sports cars. With millisecond gear changes and no interruption in traction, it ensures optimum acceleration figures while reducing fuel consumption.

The PDK is specifically tuned for the new 911 GT3. All seven gears are performance-oriented, with top speed being reached in seventh gear. The special electronic transmission control of the Intelligent Shift Program (ISP) ensures even more spontaneous and faster traction upshifts and downshifts in overrun. In PDK SPORT mode, downshifts are more aggressive when braking. When accelerating, the shift points are moved down.

With their precise pressure point, the gearshift paddles offer precise haptic feedback, even when wearing racing gloves. For drivers who use the gear selector to shift gears, the shift direction is the same as in a racing car: Pull back to shift up. Push forward to shift down.

Paddle Neutral: The PDK release function in the 911 GT3

The driving dynamics of a sports car driven to achieve the best lap times are also determined by the clutch. This is why the PDK has the “Paddle Neutral” function. If the driver pulls back on both gearshift paddles at the same time, the clutches of the PDK release, and the power delivery from the engine to the powertrain is interrupted. As soon as the driver lets go of the gearshift paddles again, the clutch re-engages at lightning-fast speed if PSM is deactivated. If PSM is activated, the clutch re-engages quickly, but less spontaneously.

Essentially, there are two advantages to this: If the car is understeering through a bend in wet conditions, for example, the driver can neutralise the handling by pulling back on the paddles, delivering extra cornering force to the wheels on the front axle. The second aspect concerns how the spontaneous application of propulsion force individual influences the driving dynamics. Using “Paddle Neutral” means that the vehicle rear can be deliberately destabilised when cornering dynamically in a similar way to using a traditional clutch with a manual transmission.

“Paddle Neutral” can also be used for acceleration from a standstill. As with a vehicle with a manual transmission, the driver alone can determine the preferred acceleration characteristics using the clutch and gas pedal without any intervention from electronic powertrain and driving stability control systems.

For optimum power transmission on the road, the PDK in the 911 GT3 is combined with the Porsche Torque Vectoring Plus (PTV Plus), which incorporates an electronically-controlled rear differential lock with fully-variable torque distribution. The system brakes the inside rear wheel in a targeted manner to improve the vehicle’s steering behaviour and driving stability.

PSM specially tuned for GT sports cars

For the reasons above, PTV Plus complements Porsche Stability Management (PSM), which alters the driving dynamics through various interventions including selective wheel braking. As with the predecessor model, the vehicle stability system is also tuned for sporty driving in the new GT3. The PSM can be deactivated in two stages using the ESC OFF and ESC+TC OFF functions.

In the first deactivation stage, “ESC OFF”, the potential driving dynamics on race tracks are increased by deactivating the lateral dynamics control ESC. This allows the driver to deliberately destabilise the rear end of the 911 GT3 through bends using dynamic steering and/or the accelerator pedal. The longitudinal dynamics control functions tuned for sporty driving are retained in this driving mode. In the second deactivation stage, “ESC+TC OFF”, all driving dynamics control systems up to and including the anti-lock brake system are deactivated. This means the driver has full control and can drive entirely according to his or her preferred racing style.

Chassis

Motorsport chassis with rear axle steering

GT sports cars from Porsche have their own brand-specific spread of driving dynamics. They are at home both on race tracks like the Nürburgring and runway-style racing, delivering agility when the chassis is tested and stability at high speeds. The chassis of the new 911 GT3 has been built and tuned according to this motorsport philosophy. Compared to the previous model, the responsiveness of the spring/damper combination has been further optimised. Weight-saving integrated auxiliary springs on the rear axle ensure that the main springs remain under tension even after rapid and complete deflection – for example, after driving over the brow of a hill at high speed. Together with the rear axle steering as standard, the PASM adjustable damper system and the dynamic engine mounts, the re-developed motorsport chassis delivers further performance improvements.

The active rear-axle steering has long been a guarantee of excellent driving dynamics in high-performance 911 models. In the new 911 GT3, the steering angle of the rear wheels can be varied by up to 1.5 degrees in each direction via electromechanical actuators, depending on the speed. Below 50 km/h, the front and rear wheels turn in opposed directions, which enables particularly dynamic steering and even more agility around bends. Above 80 km/h, the wheels on both axles turn in the same direction, which increases stability at high speeds when changing lanes or manoeuvring.

PASM with two modes optimised for the road

The Porsche Active Suspension Management (PASM) variable shock-absorber system has also been specially tuned to the 911 GT3. There is a choice of two maps. Normal mode already offers high driving dynamics in changing road conditions and on uneven roads. With Sport mode, the driving dynamic potential of the new 911 GT3 is increased even further, particularly on even roads. Reducing the body movements to a minimum allows particularly precise and specific handling. The new 911 GT3 adopts the dynamic engine mounts from the predecessor model. They hold the engine more tightly to the body when cornering, thus eliminating unwanted effects of the engine mass on handling.

The revised UHP tyres (Ultra High Performance) also help achieve the potentially higher cornering speeds of the new GT 911. The 911 GT3 rolls off the production line on 245/35 ZR 20 tyres at the front and 305/30 ZR 20 tyres at the rear. The forged alloy wheels with central locking are silver-coloured as standard, and measure nine inches in width on the front axle and twelve inches in width on the rear axle. The Tyre Pressure Monitoring (TPM) system is included as standard and not only issues a warning in the event of gradual or sudden pressure loss, it also has a race circuit mode, which takes into account the lower air pressure of cold tyres at the start of the track session.

Option for day-to-day driving: Pneumatic lift for the front axle

As with the predecessor model, the new 911 GT3 also has a pneumatic lift system on the front axle offered as an option, which increases day-to-day usability by allowing the front of the body to be lifted by around 30 millimetres. This is possible at speeds of up to 50 km/h, and prevents damage to the body caused by an uneven road surface.

The standard brake system is designed for motorsport and includes aluminium monobloc fixed callipers with six pistons at the front and four at the rear. These grip the compound brake discs that have a diameter of 380 millimetres and aluminium brake chambers. The Porsche Ceramic Composite Brake (PCCB) system is also available as an option. With large brake discs measuring 410 mm in diameter at the front and 390 mm at the rear, the PCCB delivers even greater braking performance and resistance to wear.

Bodywork

Lighter with improved aerodynamics

Aerodynamics and weight are the two factors that dominate the development of the 911 GT3 body. The front and rear ends have been optimised according to these requirements. Both are constructed from lightweight polyurethane with hollow glass spheres and carbon fibre elements in order to reduce weight. The new rear lid, rear wing, and wing supports are made from carbon.

Large air intakes, typical of the 911 GT3, dominate the front view. Along with the new lateral air blades, these large intakes to the left and right improve the cooling air supply. At the same time, the GT3 air outlet in front of the luggage compartment lid improves air flow to the central water cooler and increases aerodynamic downforce on the front axle. The air intake grilles on all cooling air intakes have a titanium-coloured coating. The wide front spoiler lip delivers additional downforce at the front axle.

The new 911 GT3 comes with Bi-Xenon headlights as standard, including dynamic range control and headlight washer system. LED headlights in black are available as an option. The LED direction indicators, daytime running lights and position lights have a sleeker design on the new 911 GT3, which adds additional sharpness to the contours. Overall, the front of the new 911 GT3 looks even more muscular and sporty.

GT characteristic feature: Carbon rear wing

At the rear of the 911 GT3, there is no mistaking that this is where power is transferred to the road. The most striking feature is the fixed rear wing with black sideblades. This is positioned around 20 millimetres higher than on the previous model, providing improved downward pressure on the rear axle. The rear lid, wing and wing supports are made from carbon and painted in the exterior colour. The central ventilation slot of the rear lid is positioned higher and is larger than the predecessor model, which further improves heat dissipation. The two black ram-air scoops on the rear lid ensure optimal air supply to the engine thanks to their dynamic pressure function. They are made from glass-fibre reinforced plastic (GFRP).

The redeveloped engine underbody panelling with enlarged surface area and four additional fins ensures additional downforce. The underbody panelling made of stamped aluminium sheet metal is shaped to rise toward the rear, thus acting as a diffuser. The plastic fins channel the air flow under the rear end, which further accelerates the air and amplifies the diffuser effect. This technology also originates from motorsport.

Compared to the 911 Carrera, the body is 44 millimetres wider in the area around the rear wheel housings. Lowering by an additional 25 millimetres further emphasises the width of the car. The central black twin tailpipes of the Sports exhaust system lower the visual focus point. The tinted LED tail lights have a very flush and three-dimensional design, further accentuating the horizontal lines.

Interior

Experience centre for exceptional driving dynamics

The interior of the new high-performance sports car is tailored for maximum driving experience. The GT sports steering wheel with a diameter of 360 millimetres originates from the 918 Spyder, and its height and length can be manually adjusted. The shift paddles for manual gear selection on the PDK have very short shift throws and exceptionally precise shift behaviour. Both the driver and passenger experience the dynamics in Porsche Sports seats Plus with enhanced seat side bolsters and mechanical fore/aft adjustment. The seat height and backrests are adjusted electronically. The seat covers are finished in black leather with a seat centre in black Alcantara. The headrests bear the stitched "GT3" logo in platinum grey. As the 911 GT3 is traditionally a two-seater, the seat pans in the rear are covered.

Porsche offers three additional seat variants for the 911 GT3. The adaptive Sports seats Plus boast electrical adjustment of all seat functions (18-way). The second option is sports bucket seats with folding backrest, integrated thorax airbag and manual fore/aft adjustment. The seat shell is made from glass fibre and carbon-fibre reinforced plastic, and the surface has a carbon-weave finish. The third variant is full bucket seats made from light carbon fibre-reinforced plastic in carbon-weave finish. The new seat covers have GT3 stripes and an embossed Porsche crest in the headrests. The bucket seats have an integrated Thorax airbag, electronic height adjustment and manual fore/aft adjustment.

As with the previous model, the new 911 GT3 is also offered with an optional Clubsport package. In addition to a roll cage with screwed attachments, the package includes preparation for a battery disconnect switch, a red six-point seat belt for the driver's side, and a fire extinguisher with mount.

Porsche Track Precision app as standard

In addition to Porsche Communication Management (PCM) including an online navigation module with real-time traffic information, the standard equipment also includes the Connect Plus module and the Porsche Track Precision app. The app enables 911 GT3 drivers to display, record and analyse detailed driving data on their smartphone. Lap times can be timed either

automatically via a precise 10-Hz GPS signal in the PCM or manually using the operating lever of the optional Chrono Package, and compared on a smartphone. The app displays the driving dynamics on the smartphone in race track situations. In addition to sector and lap times, deviations from the set reference lap are also displayed. Graphical analyses of the driving data and a video analysis help the driver to improve driving performance. Recordings, lap profiles and driver profiles can be managed and shared directly via a smartphone. Without the Chrono Package, precise lap times can be sent to the app using the laptrigger available from Porsche Tequipment. This can be positioned next to the start/finish line to automatically time lap times and send the data to the PCM and smartphone app.

Optional Chrono Package with performance display

In addition to the analogue and digital stopwatch in the dashboard, the optional Chrono Package also offers a performance display for displaying, storing, and evaluating measured lap times in the PCM. This provides the driver with information about the time and distance of the current lap, as well as the previous lap time and the times achieved so far. The fastest lap and the remaining fuel range are also displayed. Any lap routes can be recorded and reference laps can also be set.

Connected PCM with Connect Plus module

The standard Connect Plus module has an LTE telephone module with SIM card reader for maximum convenience and optimised voice quality, as well as wireless Internet access. This means WiFi-enabled devices such as laptops, tablets and smartphones can be connected to the Internet in the vehicle – all at the same time if required. A smartphone storage compartment in the centre console transfers the signal of the smartphone to the vehicle antenna, which saves the battery and optimises reception quality. The Connect Plus module also offers numerous Porsche Connect services.

The driver can control the standard Sound Package Plus with its eight loudspeakers and 150-watt performance via the PCM. The Bose Surround Sound system, specially designed for 911 models, is available as an option. The audio system delivers a total output of 555 watts and has twelve fully-active loudspeakers and amplifier channels, including a patented, built-in 100-watt high-performance subwoofer. The fully-active system design allows each individual loudspeaker to be optimally adjusted to the vehicle interior, transforming the 911 into a concert hall.

Fuel consumption and emissions

911 GT3: Fuel consumption: urban: 19.7–19.4 l/100 km, extra urban: 8.8 l/100 km, combined: 12.9–12.7 l/100 km; CO₂ emissions 290–288 g/km