



# The new Panamera

Press Kit

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## **Fuel consumption and emissions**

**Panamera Turbo S:** Fuel consumption: urban 14.9 - 14.8 I/100 km, extra-urban 8.5 - 8.4 I/100 km, combined 10.8 - 10.7 I/100 km; combined  $CO_2$  emissions 247 - 245 g/km

**Panamera GTS:** Fuel consumption: urban 15.4 I/100 km, extra-urban 8.2 – 8.0 I/100 km, combined 10.9 - 10.7 I/100 km; combined CO<sub>2</sub> emissions 249 – 244 g/km

**Panamera 4S E-Hybrid:** Combined fuel consumption 2.2 - 2.0 I/100 km, combined power consumption 18.1 - 17.4 kWh/100 km; combined  $CO_2$  emissions 51 - 47 g/km

**Panamera 4: Fuel consumption:** urban 11.6 - 11.4 I/100 km, extra-urban 7.3 - 7.1 I/100 km, combined 8.8 - 8.7 I/100 km; combined  $CO_2$  emissions 202 - 199 g/km

**Panamera: Fuel consumption:** urban 11.4 - 11.1 I/100 km, extra-urban 7.5 - 7.0 I/100 km, combined 8.8 - 8.6 I/100 km; combined  $CO_2$  emissions 201 - 197 g/km

**Panamera Turbo S Executive:** Fuel consumption: urban 15.1 - 15.0 I/100 km, extra-urban 8.7 - 8.5 I/100 km, combined 11.0 - 10.9 I/100 km; combined  $CO_2$  emissions 251 - 249 g/km

**Panamera 4S E-Hybrid Executive:** Combined fuel consumption 2.3 - 2.2 I/100 km, combined power consumption 19.5 - 17.6 kWh/100 km; combined  $CO_2$  emissions 53 - 50 g/km

**Panamera 4 Executive:** Fuel consumption: urban 11.3 - 11.0 I/100 km, extra-urban 7.6 - 7.4 I/100 km, combined 9.0 - 8.9 I/100 km; combined CO<sub>2</sub> emissions 205 - 202 g/km

**Panamera Turbo S Sport Turismo:** Fuel consumption: urban 15.0 - 14.9 I/100 km, extra-urban 8.8 - 8.7 I/100 km, combined 11.1 - 11.0 I/100 km; combined  $CO_2$  emissions 253 - 251 g/km

**Panamera GTS Sport Turismo:** Fuel consumption: urban 15.5 - 15.4 I/100 km, extra-urban 8.5 - 8.3 I/100 km, combined 11.1 - 10.9 I/100 km; combined  $CO_2$  emissions 253 - 248 g/km

**Panamera 4S E-Hybrid Sport Turismo:** Combined fuel consumption 2.2 - 2.1 I/100 km, combined power consumption 19.3 - 17.4 kWh/100 km; combined  $CO_2$  emissions 52 - 49 g/km

**Panamera 4 Sport Turismo:** Fuel consumption: urban 11.4 - 11.2 I/100 km, extra-urban 7.8 - 7.5 I/100 km, combined 9.0 - 8.9 I/100 km; combined CO<sub>2</sub> emissions 205 - 202 g/km

All information refers to the EU model.

The consumption and  $CO_2$  emission values were calculated according to the new Worldwide Harmonised Light Vehicle Test Procedure (WLTP). The NEDC values derived from this must continue to be specified for the time being. These values cannot be compared with the values calculated on the basis of the previously used NEDC test. Further information on the official fuel consumption and official, specific  $CO_2$  emissions of new passenger cars is available in the publication entitled "Guidelines on fuel consumption,  $CO_2$  emissions and power consumption of new passenger cars", which is available free of charge from all sales outlets and from Deutsche Automobil Treuhand GmbH (DAT).

### Highlights

## The new Panamera

## Enhanced, more precise, sharper.

The new Porsche Panamera covers an even wider spectrum. It links the performance of a sports car with the comfort of an exclusive saloon.

## Best-in-class performance with higher output.

Porsche underlines its goal to deliver the best performance in the class by (in some cases) significantly boosting the engine output. This particularly applies to the new Panamera Turbo S.

## Lateral dynamics in perfection.

Noticeable improvements have been made to driving comfort and cornering stability by optimising all the chassis systems. As a result, the adaptive shock absorbers, electronic roll stabilisation, steering system and revamped engine and axle mounts have all been optimised.

## Enhanced E-Performance strategy.

Porsche continues to consistently pursue the E-Performance strategy and is extending the range of plug-in hybrids with the new Panamera 4S E-Hybrid.

## Electric driving experience in true Porsche style.

A new operating strategy and more powerful battery have contributed to significantly improving the electric driving experience and all-electric range.

## Sharper visual appearance for greater presence.

Targeted design features, such as a new front section, modified tail light strip, new wheels and colours sharpen the identity of the new Panamera.

## Full connectivity and communication.

The Porsche Communication Management system incorporates new digital functions and services, such as upgraded Voice Pilot online voice control, Risk Radar, Radio Plus, wireless Apple<sup>®</sup> CarPlay and many other Connect services.

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#### Summary

## Even more performance: Turbo becomes Turbo S

A unique symbiosis of contrasts: the new Porsche Panamera now covers an even wider spectrum. It combines the performance of a sports car with the comfort of an exclusive saloon. With the 463 kW (630 PS) Panamera Turbo S, the sports car manufacturer successfully supports its claim to best-inclass performance. The new top-of-the-range model betters the performance figures of the previous Panamera Turbo by a wide margin. Porsche also continues to pursue its E-Performance strategy. The Panamera 4S E-Hybrid is a new addition to the range of plug-in hybrids, offering a completely new drive system with 412 kW (560 PS) system output. Compared with the previous hybrid models, the all-electric range has been boosted by up to 30 per cent. Comfort and sportiness both benefit from enhanced chassis components and control systems in combination with the new-generation steering control and tyres.

### Turbo S: from zero to 100 km/h in 3.1 seconds

With a power output of 463 kW (630 PS) and a torque of 820 newton metres, the new Panamera Turbo S offers 59 kW (80 PS) more power and 50 Nm more torque than the previous flagship Turbo with combustion engine. This has a very positive effect on driving performance: in Sport Plus mode, the Turbo S model accelerates from 0 - 100 km/h in just 3.1 seconds. Developed in Weissach and built in Zuffenhausen, the familiar four-litre V8 biturbo engine has been comprehensively overhauled to enable the car to achieve a top speed of 315 km/h. In order to transfer the enormous power to the road in a controlled manner and maximise cornering performance, the three-chamber air suspension, the Porsche Active Suspension Management (PASM) and the roll stabilisation system Porsche Dynamic Chassis Control Sport (PDCC Sport) including Porsche Torque Vectoring Plus (PTV Plus) have been customised to each specific model and optimised accordingly.

The new Panamera Turbo S has already proven its uncompromising performance capability on the legendary Nürburgring Nordschleife: test driver Lars Kern completed the 20.832 kilometre-long lap on the most demanding race track in the world in exactly 7:29.81 minutes – the new official record in the "executive cars" class.

### Increased sportiness and comfort thanks to optimised chassis systems

The V8 biturbo engine in the Panamera GTS was optimised with a specific focus on its power delivery. With 353 kW (480 PS) and 620 Nm, the new Panamera GTS delivers 15 kW (20 PS) more power than its predecessor. The power output continuously increases up to close to the engine speed limit. The power delivery is therefore like that of a classic sports car with naturally aspirated engine. The traditional V8 sound characteristics are even more prominent than before thanks to the new standard sports exhaust system featuring asymmetrically positioned rear silencers.

The new Panamera and Panamera 4 are now equipped with the familiar 2.9-litre V6 biturbo engine in all markets worldwide. Delivering 243 kW (330 PS) and 450 Nm, the performance remains unchanged.

The chassis and control systems have been geared towards a sporty and also comfortable character for all new Panamera models. Some systems have even been applied completely from scratch. For example, the revamped Porsche Active Suspension Management (PASM) system results in a noticeable improvement in damping comfort, while the control of the electric roll stabilisation system Porsche Dynamic Chassis Control Sport (PDCC Sport) ensures improved body stability. There is also a new equipment generation for the steering control and tyres.

## 4S E-Hybrid with 17.9 kWh battery and an electric range of up to 54 km

Porsche is presenting a further performance-oriented plug-in hybrid model with the new Panamera 4S E-Hybrid. The intelligent combination of the 100 kW (136 PS) electric motor integrated into the eight-speed dual-clutch PDK transmission and the 2.9-litre V6 biturbo engine with 324 kW (440 PS) generates a system output of 412 kW (560 PS) and a maximum system torque of 750 Nm. The performance figures are therefore very impressive: combined with the standard Sport Chrono Package, the sprint from 0 – 100 km/h is covered in 3.7 seconds. The top speed is 298 km/h. The gross battery capacity has been increased from 14.1 to 17.9 kWh compared with the previous hybrid models using optimised cells and the driving modes have been optimised for even more efficient energy utilisation. The 4S E-Hybrid has an all-electric range of up to 54 km in accordance with WLTP EAER City (NEDC: up to 64 km).

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#### Sharper visual appearance for greater presence

The new Panamera models – in addition to the sports saloon, they can also be ordered as Sport Turismo or Executive with lengthened wheelbase, depending on the drive system – are now equipped from the factory with the previously optional Sport Design front end with striking air intake grilles, large side cooling openings and a single-bar front light module. The completely new front end of the Panamera Turbo S is differentiated by the larger side air intakes and newly designed elements in the exterior colour, which are connected horizontally and thus emphasise the width of the vehicle. The light modules of the dual Turbo front lights are now set much further apart.

The revamped light strip at the rear now runs seamlessly over the luggage compartment lid with an adapted contour. It thus provides a continuous and flowing connection between the two newly designed LED tail light clusters. GTS models sport the new darkened Exclusive Design tail light clusters as standard with dynamic coming/leaving home function. Three new 20- and 21-inch wheels have been added to the wheel range, so that a total of 10 different designs are now available

#### Digital connectivity and assistance systems for safety and comfort

The Porsche Communication Management (PCM) includes additional digital functions and services such as the improved Voice Pilot online voice control, Risk Radar for up-to-date road sign and hazard information, wireless Apple<sup>®</sup> CarPlay and many other Connect services. The Panamera also offers an extensive range of innovative light and assistance systems, such as the now standard Lane Keeping Assist with road sign recognition, as well as Porsche InnoDrive including adaptive cruise control, Night Vision Assist, Lane Change Assist, LED matrix headlights including PDLS Plus, Park Assist including Surround View and head-up display.

The new Porsche Panamera is available to order now and will be in dealerships in the middle of October. In Germany, prices start at 91,345 euros for the rear-wheel-drive Panamera. All other models come with all-wheel drive: prices start from 95,289 euros for the Panamera 4, from 126,841 euros for the Panamera 4S E-Hybrid, from 136,933 euros for the Panamera GTS and from 179,737 euros for the Panamera Turbo S – in each case including value-added tax and country-specific equipment.

#### Powertrain

## Best-in-class performance with higher output

The new Porsche Panamera lives up to its role of a four-door sports car more than ever before with powerful and efficient drive systems. New models such as the Panamera Turbo S successfully support the car's claim as delivering best-in-class performance. With the equally new Panamera 4S E-Hybrid, Porsche is presenting a further, powerful plug-in hybrid (more details in the section 'E-Performance').

The new Panamera and Panamera 4 now feature the familiar 2.9-litre V6 biturbo engine worldwide. Just like before, it generates an output of 243 kW (330 PS) and a maximum torque of 450 Nm. All the engines in the new Panamera models comply with the Euro 6d-ISC-FCM emissions regulations.

### Panamera GTS - now with the characteristics of a naturally-aspirated engine

Porsche had two specific goals in mind when optimising the four-litre V8 biturbo engine in the Panamera GTS: making the engine tangibly more powerful while simultaneously creating an even more emotive, typical GTS driving experience.

The new Panamera GTS now generates 353 kW (480 PS) and 620 newton metres – 15 kW (20 PS) more output than the predecessor model. However, the power development will probably be most important for purist drivers. Its linearity is reminiscent of a traditional, naturally-aspirated engine: the output continuously increases until maximum rpm is reached.

The torque characteristic now drops significantly less at high engine speeds so that drivers will clearly feel the increased power even beyond 5,500 rpm. The modified torque characteristic has also been geared towards a very constant increase in power in the medium rev range. The result is linearity in the power delivery of the kind typical of purist sports cars and previously reserved for naturally-aspirated engines.

Thanks to its standard sports exhaust system, the new Panamera GTS generates a highly emotive sound. Its rear silencers, in asymmetrical layout, counteract the increased noise reduction in the exhaust tract and the distortion of the specific sound produced by the V8 firing order. The sports exhaust system supports the specific exhaust gas pulses used to create the sound and allows for even finer tuning of the characteristic V8 sound.

The strong character of the new Panamera GTS models is emphasised by the increase in power to 353 kW (480 PS), the characteristics of a naturally-aspirated engine in power delivery and the unmistakable V8 sound, which all in all produce a more emotive driving experience. In Sport Plus mode, the car sprints from 0-100 km/h in 3.9 seconds – an improvement of 0.2 seconds on its predecessor. It has a top speed of 300 km/h.

#### New Turbo S with revamped four-litre V8 biturbo engine

The familiar four-litre V8 biturbo engine served as the basis for development of the engine for the Panamera Turbo S. The entire crankshaft drive, including crankshaft, connecting rods, pistons, timing chain drive and torsional-vibration dampers, has undergone fundamental optimisation. The components have been designed for increased dynamic performance and higher load peaks.

New fuel injectors deliver a higher flow rate at an unchanged, maximum injection pressure of up to 250 bar, enabling maximum power development – even with varying fuel grades. Optimised turbochargers featuring a modified turbine layout generate a higher charging effect at the same engine speeds, thus offering additional potential to boost the output. The spark plugs benefit from a higher platinum content at the electrodes to make them particularly durable and robust. The compression ratio has also been reduced from 10.1:1 to 9.7:1 to reduce the knocking tendency, i.e. the risk of an uncontrolled self-ignition of the fuel/air mixture at high temperatures.

In figures, all these measures result in an output totalling 463 kW (630 PS) and a maximum torque of 820 Nm. The Turbo S accelerates from a standing start to 100 km/h in 3.1 seconds and has a top speed of 315 km/h.

The new sport exhaust system of the GTS is also optionally available for the Panamera Turbo S with asymmetrical rear silencers for a particularly striking V8 sound.

#### Improved coasting function for added efficiency

The coasting function of the eight-speed dual-clutch transmission (PDK), which is activated in normal driving mode and was already part of predecessor models, has also been improved. By monitoring the route ahead and the sensor data from the front radar and front camera, the system decides during each overrun phase if it is more efficient to coast with the combustion engine decoupled or to maintain overrun mode in the current driving situation. The latter can be useful when there is traffic ahead because no fuel needs to be injected in overrun mode and the engine drag torque can reduce the amount of braking required.

The efficiency increases thanks to this intelligent enhancement of the coasting strategy. Last but not least, driving comfort is also improved because coasting does not have to be interrupted as often manually by operation of the brake, accelerator or shift paddle.

#### Chassis and brakes

## Lateral dynamics in perfection

Chassis comfort and cornering stability benefit equally from further enhanced chassis components and control systems in the new Panamera. For example, the revamped Porsche Active Suspension Management (PASM) brings a noticeable improvement in damping comfort. Control of the roll stabilisation system Porsche Dynamic Chassis Control Sport (PDCC Sport) with a 48-volt system now ensures enhanced body stability. Grip and traction are also increased. The new steering control generation with an application derived from the 911 Carrera and Taycan models improves the steering response and intensifies feedback to drivers for even greater precision and directness. Consequently, the new Panamera once again sets performance benchmarks within the segment despite the significantly increased driving comfort.

Among other things, the three-chamber air suspension, PASM and PDCC Sport including Porsche Torque Vectoring Plus (PTV Plus) have been specifically implemented on a model-specific basis and optimised further to transfer the enormous torque of up to 820 Nm of the new Panamera Turbo S to the road surface and guarantee maximum cornering performance. This improves the longitudinal and lateral dynamics to underline the Panamera's claim to be the sportiest saloon within the premium class.

#### New tyres and wheel designs

Since tyres have a very significant influence on handling, great importance is always attached to them in chassis development at Porsche. An improved tyre generation is used for the new Panamera models. The new 20 and 21-inch summer tyres increase the bandwidth between comfort and sportiness while simultaneously offering a lower rolling resistance.

Sport tyres with a softer rubber compound and optimised tread have been developed especially for the Panamera and are offered for the first time. These tyres improve lateral performance and are particularly suitable for sporty cornering.

A total of 10 wheel designs are now available with the new 20-inch wheel and two new 21-inch wheels. These also include the Exclusive Design 21-inch alloy wheels with bright-polished areas, painted rim bases and wheel hub covers with coloured Porsche Crest. The latest generation of multi-function steering wheels is used. With their visual cut-outs, they evoke the lightweight steering wheels found in racing cars.

#### Optimised brakes for best deceleration

In keeping with the increase in engine power, the chassis developers have also focused on redesigning the brakes on the new Panamera models and have adapted the sizes accordingly.

For instance, the new Panamera Turbo S has now been equipped with the Porsche Ceramic Composite Brake (PCCB) as standard, a system that has been tested on race tracks. The brake discs measure 420 millimetres on the front axle and 410 millimetres on the rear axle.

The PCCB brake calipers have a Yellow finish. They are still Red as before in the GTS models. Black brake calipers are a new option available for the GTS and Turbo S models. The Panamera 4S E-Hybrid features brake calipers in Acid Green; while the calipers are Black on the Panamera and Panamera 4.

## E-Performance

## Longer range and more intelligent energy recuperation

Porsche continues to pursue its E-Performance strategy and has added the new Panamera 4S E-Hybrid with its completely new driveline to its plug-in hybrid range. With a system output of 412 kW (560 PS) and a maximum torque of 750 Nm, the 4S E-Hybrid is positioned between the previous E-Hybrid models.

The new Panamera 4S E-Hybrid benefits from a more powerful high-voltage battery and optimised driving modes. There is now a much greater focus on highly efficient charging while driving – depending on the selected driving mode: the battery charges faster. At the same time, the intelligent energy recuperation allows an even more efficient use of the electric drive.

The electromechanical brake booster guarantees a variable combination of deceleration by electrical energy recuperation and mechanical braking. The brake pedal characteristic and pedal force remain identical here. The brake pedal feeling has been further optimised on the new Panamera 4S E-Hybrid, resulting in better feedback and more precise control.

The new Panamera 4S E-Hybrid models utilise the driveline architecture of the previous hybrid models. The heart of this is an electric motor integrated into the eight-speed PDK dual-clutch transmission, which contributes an output of 100 kW (136 PS) and a torque of 400 Nm. Intelligently combined with the 324 kW (440 PS) 2.9-litre V6 biturbo engine, the newly developed Panamera 4S E-Hybrid generates a system output of 412 kW (560 PS) and a maximum system torque of up to 750 Nm. In combination with the standard Sport Chrono package, this results in outstanding performance statistics: the standard sprint to 100 km/h is achieved in 3.7 seconds. The maximum speed is 298 km/h.

The electric motor draws its energy from a high-voltage battery installed at the rear. To achieve a long electric range and extend the reserve capacity for electric boosting, the battery's gross capacity has been increased from 14.1 to 17.9 kWh compared with the previous hybrid models thanks to optimised battery cells. This corresponds to an increase of exactly 27 per cent. The Panamera 4S

E-Hybrid therefore now boasts an all-electric range according to WLTP EAER City of up to 54 km (NEDC: up to 64 km). The installation space for the battery beneath the load compartment floor remains compact, providing spacious luggage volumes from 403 to 1,242 litres in the sports saloon (Sport Turismo: 418 to 1,287 litres).

### Optimised modes for electric driving experience

The four driving modes 'E-Power', 'Hybrid Auto', 'Sport' and 'Sport Plus' are selected as usual using the mode switch in the standard Sport Chrono package. In addition, the two modes, 'E-Hold' and 'E-Charge', which are activated with Porsche Communication Management (PCM), are also available.

To further enhance the electric driving experience, the modes in which the high voltage battery is charged during driving have been optimised. The new Panamera 4S E-Hybrid models start in E-Power mode as standard. As usual, the ideal mix of interaction between electric motor and combustion engine is controlled with the accelerator. The Hybrid assistant accessible in the left-hand side of the instrument cluster display visualises in real-time the relationship between the drive torque currently used and the maximum available drive torque. The maximum available drive torque of the electric motor is reached when the accelerator pedal is depressed to an angle of approximately 50 per cent. In E-Power mode, the combustion engine is activated only from a pedal angle of around 60 per cent. The noticeable free pedal travel between 50 and 60 per cent of the accelerator pedal angle ensures optimum electric driving control. If the high-voltage battery falls below the minimum charge level for the E-Power mode, the system automatically switches to the Hybrid Auto mode.

The intelligent Hybrid Auto mode offers the greatest operating efficiency for urban and cross-country driving. For the best possible combination of the electric motor and combustion engine, the optimum operating strategy is continuously derived from information relating to driving profile, state of charge, topography, speed and navigation destination. All-electric driving is used in situations where, in terms of overall efficiency, it is the most appropriate option. The Hybrid Auto mode of the new Panamera 4S E-Hybrid adapts optimally to the driver's habits. When route guidance is activated, the electric drive is used more intensively during urban driving in particular. The high-voltage battery is charged more on sections of road where the combustion engine is active.

#### **E-Performance**

In E-Hold mode, the state of charge of the high-voltage battery is maintained at the current level as usual. This means that the energy of the battery can be used at a later time for electric driving or boosting. In E-Charge mode, the combustion engine charges the battery when driving by generating a higher output than required for the current driving situation. This so-called load point shift provides the driver with the option of predictively increasing the electric range.

The E-Charge mode of the new Panamera 4S E-Hybrid follows an adapted charging strategy for the battery. The target charge level of the battery was reduced from the previous 100 to 80 per cent. The reason for this is due to the fact that the battery – like the battery in a smartphone – charges significantly more slowly and less efficiently from a charge level of around 80 per cent. This also makes it possible to ensure that the full recuperation power is available at all times. The battery of the Panamera 4S E-Hybrid is charged quickly and in a reproducible way through definition of a constant charging capacity of 7.2 kW. In all, the E-Charge mode is now more efficient and can be experienced more directly than before.

In both performance-oriented Sport and Sport Plus modes, the combustion engine is always in operation. Sport mode offers extremely sporty vehicle characteristics for fast driving on country roads and motorways; in this mode, the drivetrain and chassis are switched to the Sport setup. The battery is charged to a minimum level to be able to provide a sufficient amount of boost for the sporty driving style.

In Sport Plus mode, the focus in all Porsche models is on maximum sportiness: the drive and chassis are adapted for high performance. On the Panamera 4S E-Hybrid models, Sport Plus mode additionally differs from Sport mode due to the fact that the battery is charged as quickly as possible to 80 per cent. Specification of a constantly high charging capacity of 12 kW means that maximum boost availability is reached even faster. The reduction in the target charge level ensures the availability of the maximum recuperation power.

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#### Design

## Targeted measures with great effect

Targeted changes have been made to the design to further sharpen the unique character of the Panamera. With the exception of the Turbo S, all new models now feature the Sport Design front end familiar from the predecessor. The new front end is characterised by a more distinctive air intake grille in Black and larger side air intakes with adapted single-bar front light layout.

The Panamera GTS features an enhanced Sport Design package as standard. Distinctive, grained air intakes in Satin Gloss Black and C blades in the exterior colour accentuate the car's individual look. The Sport Design side sills also in Satin Gloss Black reflect the sporty and elegant design language of the GTS.

The front view of the newly developed Panamera Turbo S underlines the fact that this is an exceptionally sporty derivative with a striking and unique front end. The front is distinguished by larger side air intakes as well as newly designed elements painted in the exterior colour which are connected horizontally to make the car seem wider. The light modules of the new, dual Turbo front lights have now been positioned further apart than before.

The continuous light strip at the rear has also been redesigned: it now runs seamlessly over the luggage compartment lid and harmoniously links the two newly designed LED tail light clusters to create a single element. The adapted contour lines also lead to a more dynamic lighting look. Model-specific exhaust systems are harmoniously integrated into the newly designed rear apron with striking diffuser fins and round it off towards the bottom with a sporty character.

As standard, the Panamera GTS features the new darkened Exclusive Design tail light clusters with dynamic Coming Home/Leaving Home function. The rear is also distinguished by its Sport Design rear apron in Satin Gloss Black with diffuser panel in exterior colour. The sports exhaust system including two twin tailpipes in High Gloss Black underlines the sporty appearance.

Two metallic colours have been changed within the large paintwork range available for the Panamera: Burgundy Red Metallic and Ristretto Brown Metallic have been replaced with Cherry Metallic and Truffle Brown Metallic respectively. The personalisation options available for the exterior include the new Carbon Sport Design package. The Carbon look is used for the C blades, air outlet trims and rear diffuser panel. As a distinctive contrast, the front air intakes are painted in High Gloss Black and the spoiler lip and side sills are finished in the exterior colour.

The also new Exclusive Design tail light clusters are differentiated by a light strip and brake lights without red components, as well as the specific design of the lateral fins. Instead of the familiar "hockey stick" lines, switch on/off animation for the turn signals now features an elegant dot design. The Coming Home/Leaving Home function additionally activates the entire tail light module upon locking and unlocking the vehicle.

A total of 10 wheel designs are now available with the new 20-inch wheel and two new 21-inch wheels. These include the Exclusive Design 21-inch alloy wheels with bright-polished areas, painted rim bases and wheel hub covers with coloured Porsche Crest.

#### New steering wheel generation in elegant, sporty interior

The predecessor's innovative vehicle interior forms the basis for new Panamera models. It is characterised by a timeless, sporty and elegant ambience featuring high-grade materials. In keeping with the Porsche design DNA, modern infotainment and connectivity services are harmoniously integrated. New multifunction steering wheels are now used with immediate effect. Their visual cut-outs are reminiscent of the lightweight steering wheels used in motorsports. Multifunction operating elements are cleverly integrated into the steering wheel design.

The Panamera models and Panamera 4S E-Hybrid feature as standard the new sports steering wheel with shift paddles and steering wheel rim finished in smooth leather. The even sportier GT sports steering wheel is part of the Panamera Turbo S standard equipment. The GTS includes the GT sports steering wheel with black Alcantara<sup>®</sup> steering wheel rim and steering wheel heating ex works. The different GT sports steering wheel variants are optionally available for all other models. They can be enhanced with the new carbon steering wheel trim on request.

Porsche Press Kits The Porsche Newsroom Press contacts The Sport Chrono package can be further extended by an exclusive clock from Porsche Design. The high-grade, analogue Porsche Design clock in the dashboard boasts a genuine, radially polished metal face, ceramic indices and hands featuring white Superluminova<sup>®</sup> coating. Thanks to the specially developed incident light technology it shows the time in the style of a top-quality chronometer and even remains easily legible in poor lighting conditions or in the dark. A Porsche Design Sport Chrono watch collection is additionally available to order featuring COSC-certified calibers that were developed in house. The new line, which includes one chronograph and three "three-hand models" with a smaller face showing seconds, combines traditional design characteristics, materials and performance properties from sports car engineering to transfer the Porsche feeling to the wrist.

The Panamera Turbo S comes as standard with a high-quality leather interior. The GTS comes fitted with a leather interior and the GTS Alcantara<sup>®</sup> package in Black ex works. The optional interior packages have been adapted to suit the new Panamera: for the wood trims, the Beech Anthracite package has been replaced with the slightly lighter Abachi Anthracite. The modified Paldao trim is now called Paldao Grey; the natural monochrome colour spectrum has an elegant contemporary look. The dashboard, front and rear doors and the centre console now have high-quality wooden trim elements in this interior package.

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#### Light and assistance systems

## Added comfort and more safety

The Panamera boasts a comprehensive selection of modern and innovative light and drive assistance systems, which improve both safety and comfort for the driver. The new Panamera models now have Lane Keeping Assist including road sign recognition on board as standard. Tried-and-tested light and assistance systems are additionally available as an option. These are Porsche InnoDrive including Adaptive Cruise Control, Night Vision Assist, Lane Change Assist, LED matrix headlights including PDLS Plus, Park Assist including Surround View and a head-up display.

#### Lane Keeping Assist including road sign recognition

Lane Keeping Assist provides protection against the vehicle unintentionally leaving its lane and can be activated between a speed range of approximately 65 km/h and 250 km/h. It provides gentle steering assistance, guiding the vehicle back into the correct lane. It is possible to optionally select an acoustic and visual warning. Road sign recognition is used to display normal speed limits, temporary speed signs as well as 'no overtaking' zones and indirect restrictions in the instrument cluster.

## **Adaptive Cruise Control**

Using radar and video sensors, this system reliably regulates the distance to the vehicle in front in a speed range between 30 and 210 km/h. If necessary, the system brakes the Panamera to a standstill in the process. Courtesy of the stop-and-go function, the car drives off again automatically after a short time after braking to a standstill. The system uses the coasting function as much as possible to optimise consumption. In the first stage, adaptive cruise control outputs a visual warning. In the second stage, it issues an acoustic warning and in the third stage, the system applies pressure to the brakes if the car is approaching a vehicle ahead too quickly.

## Porsche InnoDrive including Adaptive Cruise Control

Porsche InnoDrive controls the vehicle's speed independently and predictively on the basis of highly accurate route data: the vehicle independently adapts the speed to the conditions on downhill and uphill gradients and through bends. In this process, the system's radar video sensors detect the distance to the vehicle ahead and regulate it automatically – even when vehicles cut in from the side. Valid speed limits and their cancellation are automatically integrated into the cruise control system.

### **Night Vision Assist**

A thermal imaging camera is used to detect persons and large wild animals at a distance of up to 300 metres and highlights them in yellow in the instrument cluster's colour display. If these objects move into a critically close range, the marking changes from yellow to red and an acoustic warning is issued. In combination with the LED matrix headlights, the vehicle warns persons or wildlife by flashing at them three times.

### Lane Change Assist

Two radar sensors are used to record the distance and speed of vehicles approaching from behind on adjacent lanes. If the speed and distance to the driver's vehicle are deemed as critical for changing lanes, a warning is shown in the mirror finisher. The system is active at speeds from approximately 15 km/h to 250 km/h and can detect vehicles at a distance of up to 70 m away. The system also warns when turning off in urban driving.

## LED matrix headlights including PDLS Plus

The LED matrix headlights generate the LED main beam by means of numerous individual diodes in combination with lenses positioned in front of them and reflectors. The camera identifies vehicles driving ahead as well as approaching vehicles and intelligently controls the main beam distribution so drivers can always benefit from the full illumination of the road without affecting other road users. The camera also recognises reflecting road signs that may dazzle drivers. These are selectively masked out.

## Park Assist including Surround View

The system calculates a 360-degree view from the images of four individual cameras to help when parking and manoeuvring. The cameras are supplemented with small manoeuvring lights so that the system functions perfectly at night or in poorly lit car parks.

### Head-up display

The head-up display projects all relevant driving information in high-quality and full colour directly into the driver's line of sight. The system makes it easier to recognise all relevant displays, information and notifications more quickly and thus contributes to reducing distractions for the driver. The head-up display is discreetly integrated into the vehicle's interior.

#### Comfort and infotainment

## High-end quality and sports car ambience

The Panamera interior offers extensive comfort features and high-quality materials in accordance with the highest quality standards. At the same time, its cockpit, ergonomically oriented towards the driver, conveys genuine sports car flair. This is supported by three different seat variants. The standard comfort seats at the front with eight-way adjustment can already be ideally adapted to the needs of the driver and front passenger. Optionally available comfort seats with 14-way adjustment offer additional settings, thus further enhancing seat comfort. Adaptive sports seats with 18-way adjustment have an even sportier look thanks to their raised side bolsters, and also offer perfect lateral support during dynamic driving manoeuvres. A massage function is also available in conjunction with the 14-way front comfort seats and 8-way rear comfort seats.

The optional panoramic roof system offers a particularly spacious feeling. The optional ioniser reduces hazardous particles and germs in the ambient air, thus improving air quality. The ambient lighting immerses the interior with indirect light and gives the interior a particularly elegant appearance, especially at night.

The familiar sound systems from BOSE<sup>®</sup> and Burmester<sup>®</sup> are available in addition to the standard Hi-Fi speaker system to provide a high-class, audiophile sound experience. With 14 speakers including a separate subwoofer, 14 amplifier channels and a total power of 710 watts, the optional BOSE<sup>®</sup> Surround Sound system (standard on the Panamera Turbo S) offers extremely balanced and faithful sound output for all four seats. BOSE<sup>®</sup> SoundTrue Enhancement Technology counteracts potential music compression and largely restores lost components in the high-frequency range. This produces a clearer and more spatial sound.

The Burmester<sup>®</sup> 3D High-End Surround Sound-System includes 21 loudspeakers with a two-way centre system and an active 400 watt subwoofer. It offers a total power of 1,455 watts. The Sound Enhancer<sup>®</sup> improves the sound quality of numerous digital sources. Compressed, data-reduced source material – for example MP3s streamed over the Internet – can thus be restored. The Sound Enhancer<sup>®</sup> eliminates bandwidth and dynamics restrictions and significantly improves the sound experience.

Especially in the area of high frequencies and dynamic response, the algorithm significantly improves the music output quality. Two additional speakers in the A-pillar guarantee unique sound reproduction within the vehicle.

A changeover from type A to type C USB ports has taken place with the new Panamera. The new USB ports are equipped as standard and can be used to charge compatible devices with a power of up to 15 watts.

#### **Exclusive equipment for Executive models**

A large centre console in the rear is optionally available for Panamera Executive models. Besides additional stowage space, this offers another smartphone tray for optimised reception, two USB charging interfaces, one USB media interface as well as a 12-volt and a 230-volt socket. Fold-up tables are available for the rear in combination with the large centre console.

#### Porsche Connect

## Further upgrade of online services

The Porsche Communication Management system (PCM) incorporates new, digital functions and services such as upgraded Voice Pilot online voice control, Risk Radar, Radio Plusor wireless Apple<sup>®</sup> CarPlay. The range of Porsche Connect services has also been revamped and extended. In combination with standard online connectivity, the new Panamera underlines its absolute superiority in this vehicle segment.

## **Connect Plus**

The Connect Plus module in the new Panamera extends the infotainment and connectivity system to include the following features:

- LTE communications module with SIM card reader and integrated LTE-compatible SIM card
- Porsche Connect App
- Porsche Car Connect App
- Services packages: Navigation & Infotainment package, Safety, Security & Remote functions
- Data packages
- Concierge service (in China only)

The LTE communication module included in the Connect Plus module with SIM card reader ensures optimum voice quality and data transmission. An LTE-compatible SIM card is integrated in the vehicle in order to use selected Porsche Connect services. The customer no longer requires their own SIM card. Customers can also optionally use their own external SIM card for data transmission with the integrated card reader. If customers use their own SIM card for making telephone calls, it offers optimised sound quality by using the external antenna.

## Apple<sup>®</sup> CarPlay

Apple<sup>®</sup> CarPlay enables access to individual functions and apps on the connected iPhone<sup>®</sup> in Porsche Communication Management (PCM). In order to use Apple<sup>®</sup> CarPlay, the iPhone<sup>®</sup> is connected via the USB port in the smartphone tray or connected wirelessly. The "CarPlay" menu item can then be selected from the Home screen. Apps can be operated conveniently using the Siri<sup>®</sup> voice recognition function.

## Smartphone tray with inductive charging function

Smartphones with a charging capacity of 5 watts can be charged wirelessly with the inductive charging function in the smartphone tray. It is sufficient to place the smartphone on the dedicated charging area to start charging. The inductive charging function uses the Qi standard which ensures interoperability for wireless energy transfer. This means that smartphones from different manufacturers can be used provided they support the inductive charging function.

## **Connect services with new functions**

The Connect services contained in the Connect Plus module significantly enhance the functional scope of the new Panamera. Thanks to an online connection, up-to-date data is always available for fast route calculation, while swarm-based data enables an exchange of information between vehicles, for instance about current hazards on the selected route.

Further services and functions include the Porsche Connect App, Porsche Car Connect App, Internet radio including automatic changeover between FM/DAB/Internet radio sources, improved voice control and the finder for quickly finding navigation destinations using Car Connect services, remote functions as well as security and emergency services.

An online connection is required in order to use Connect services. This can be established with an LTE-compatible SIM card integrated in the car or a SIM card belonging to the customer.

#### Always the best reception with Radio Plus

A new feature in the Panamera is the 'Radio Plus' service, a combination of integrated Internet radio and the 'hybrid radio' function.

Thanks to integration of Internet radio in the PCM, drivers can now access global online channels of their favourite radio stations. The radio stations can be sorted by popularity, country, genre and language, Podcasts can also be streamed using the Internet radio.

If the terrestrial signal (FM) or the digital signal (DAB) of a radio station cannot be received due to the environmental conditions, the PCM in the new Panamera can automatically change to the relevant online radio station channel without any manual adjustment necessary thanks to the 'hybrid radio' function. This enables the driver to continue listening to the desired radio station via online connection. The availability of online radio station information depends on whether the radio station provides this information.

#### Voice Pilot with further enhanced voice recognition

With the help of the Voice Pilot already familiar from other model series, the voice control of the PCM has been extended to include online support. The recognition accuracy of the natural voice input system has been further improved for the new Panamera so that complex inputs are now also recognised and the desired interaction performed.

Communication with the vehicle can take place freely and flexibly without the need for fixed expressions thanks to the intelligent speech comprehension functionality of the Voice Pilot. For example, the air conditioning in the new Panamera can be controlled with voice commands such as 'I'm cold' or 'I'm hot'. The system's online connection always keeps the speech recognition function up-to-date and ensures natural language interaction with the driver. It also optimises voice output at the same time. The Voice Pilot is used by the Online Speech Recognition, Online Text-to-Speech, Dictation as well as speech dialogue functions for apps and services. If no data connection is available, the Voice Pilot uses the PCM (offline) voice control as a backup.

#### Navigation: always on the right road, whether on or offline

Route calculation by the navigation system in the new Panamera models is carried out in parallel both online as well as in the PCM. Drivers benefit here from the best of both worlds: online navigation takes into account all traffic notifications along the entire route and accesses up-to-date maps. In contrast, the PCM navigation is always available with or without an online connection. The PCM independently decides which navigation system has calculated the optimum route, but always starts with the result that was calculated fastest.

Destinations can also be conveniently created before a journey not just in the PCM but also using the Porsche Connect App or on My Porsche. Destinations are synchronised by identification with the Porsche ID.

Real-time traffic data information helps to provide a more dynamic route guidance. With this information the roads in the map view are highlighted in green, yellow or red – depending on the traffic situation. The online connection icon in the status bar informs the driver if real-time traffic data is available.

Besides the normal two-dimensional or perspective map presentation, satellite data can also be used to display aerial images of buildings, roads and premises. If available at the location, the system additionally offers a panoramic view in the detail list on the right-hand edge of the PCM once the search has been entered in the finder, so drivers can get an impression of the destination.

With the help of the 'Personal routes' function, the PCM can learn from frequently driven routes (at least three times) and gives the driver navigation suggestions. This predictive navigation extends the function by providing any additional traffic notifications for the relevant routes.

Online updates are used to always keep the map material up-to-date for navigation. To reduce the data volume required, only relevant changes are downloaded so that existing, up-to-date navigation maps do not need to be loaded again.

#### **Porsche Connect**

By linking vehicles, the new Panamera can make use of shared information that has been provided anonymously by other vehicles – so-called swarm data. Just like with real-time traffic data, information from the road sign recognition function is used for system optimisation. The vehicle also informs the driver about local hazards based on the available data and ensures increased safety.

The finder is the central navigation search function and can be accessed at any time using a search icon at the top of the PCM screen. Search requests can be input directly in the navigation menu using the full HD touch display or alternatively by voice command. If an online connection is available, all information is provided via the Internet so that the data is as up-to-date as possible. Users can choose between the PCM online search and a GOOGLE<sup>®</sup> search. The POIs 'Petrol stations' and 'Parking spaces' have been extended to include 'Restaurants', 'Charging stations' and 'Hotels'. Besides detailed information such as opening times and prices, ratings for the POIs are also displayed in the PCM.

The POIs can be searched for either near the current location, along the route, at the destination or at any address. User friendliness is also improved because the POIs are integrated in the navigation menu.

#### **Car Connect App**

As previously, the Porsche Car Connect App provides access to Car Connect services. These can be used to control selected vehicle functions with the app. Security Services help to protect the vehicle against theft and to find it again if the worst happens. The emergency breakdown call and airbag alarm functions further increase safety.