

Even more dynamic driving performance

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The Taycan models have always been performance-focused – but through this extensive update they've become more sporty than ever. All updated models accelerate significantly faster than their predecessors. Two examples: the Taycan sports sedan **Taycan (WLTP)*:** Electrical consumption combined: 19.1 – 16.1 kWh/100 km; CO_2 emissions combined: 0 g/km; CO_2 class: A takes just 4.8 seconds to complete the sprint from 0 to 100 km/h – 0.6 seconds less than before. The Taycan Turbo S **Taycan Turbo S (WLTP)*:** Electrical consumption combined: 19.9 – 17.8 kWh/100 km; CO_2 emissions combined: 0 g/km; CO_2 class: A hits 100 km/h from a standstill in just 2.4 seconds – 0.4 seconds faster than its predecessor. In addition, all models have a much longer range: depending on the body variant and engine, the range is up to 678 km according to the WLTP (see chapter Charging). The optional Porsche Active Ride suspension also makes a significant contribution to even more dynamic performance (see separate chapter).

The simultaneous improvement of performance and efficiency is down to a number of factors: an

advanced powertrain with a new rear-axle motor, a modified pulse inverter with optimised software, more powerful batteries, revised thermal management, a next-generation heat pump and an optimised recuperation and all-wheel-drive strategy.

Overall, the latest Taycan model year has significantly more power. These are the figures for Overboost Power with Launch Control[1]:

- Taycan[2]: 300/320 kW
- Taycan 4S (**Taycan 4S (WLTP)*:** Electrical consumption combined: 20.1 – 17.6 kWh/100 km; CO_2 emissions combined: 0 g/km; CO_2 class: A): 400/440 kW
- Taycan Turbo (**Taycan Turbo (WLTP)*:** Electrical consumption combined: 20.0 – 17.7 kWh/100 km; CO_2 emissions combined: 0 g/km; CO_2 class: A): 650 kW
- Taycan Turbo S: 700 kW

Performance Battery Plus with higher energy content

All new Taycan models with the Performance Battery Plus **Taycan with Performance Battery Plus (WLTP)*:** Electrical consumption combined: 19.4 – 16.4 kWh/100 km; CO_2 emissions combined: 0 g/km; CO_2 class: Ahave a lithium-ion battery in the underbody with a total capacity of around 105 kWh. The 33 modules consist of a total of 396 pouch cells. The ratio of nickel, cobalt and manganese in the mix is 8:1:1.

The advanced cell chemistry in the batteries enables a high energy content, lower internal resistance and higher charge and discharge currents. The latter enable a higher charging capacity. Various weight-optimisation measures, such as the glass fibre composite underbody guard, improve robustness while simultaneously reducing the weight of the battery by nine kilograms.

New electric motor on the rear axle

A new electric motor is used on the rear axle. This unit delivers more power (up to 80 kW) and torque (plus 40 Nm), but weighs around ten kg less than the previous unit.

The electric motor has been optimised down to the finest detail: The magnetic circuit was redesigned; the magnets in the rotor, for example, were arranged in a double V lamination. the new rotor has segmented magnets. Several thin magnets are connected to each other via electrically insulating adhesives. This reduces losses in the magnetic field. The stator and the outer housing were also newly developed, which results in an optimised power density, among other benefits.

The upgraded pulse inverter with optimised software enables more efficient control of the electric motors. Porsche has also further improved the all-wheel drive strategy so that the front electric motor can be electronically decoupled more frequently to improve efficiency. This is done whenever traction, driving dynamics and driving stability allow it. It then switches back on within milliseconds when needed, for example when accelerating or recuperating.

Up to 400 kW recuperation capacity

Recuperation has also been improved, with Porsche maintaining the principle of controlling it predominantly via the brake pedal. Energy is now recovered more frequently and with even higher capacity. In the lower speed range, maximum deceleration generated by recuperation has increased by about 15 per cent. The maximum recuperation capacity during deceleration from high speeds increased by more than 30 per cent from 290 to up to 400 kW.

Optimised thermal management also yields efficiency gains. The heat pump offers more heating power and can precondition the interior as well as the high-voltage battery even more quickly. Similarly, a higher cooling capacity enables faster cooling of the battery even at high ambient temperatures, so that it can be charged with a higher capacity. The coolant hoses are now laid in such a way that the excess heat from the drive system can be used even more efficiently for interior heating. The car's electrical system architecture has also been designed for even greater efficiency. For example, the air conditioning compressor and other components are operated at 800 volts instead of at 400 volts as before, which reduces conversion losses.

[1] Information for all body variants, unless otherwise noted.

[2] With Performance Battery/Performance Battery Plus.

MEDIA ENQUIRIES



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Consumption data

Taycan Turbo Cross Turismo (WLTP)*: Electrical consumption combined: 21.4 – 18.9 kWh/100 km; CO_2 emissions combined: 0 g/km; CO_2 class: A

Taycan Turbo (WLTP)*: Electrical consumption combined: 20.0 – 17.7 kWh/100 km; CO_2 emissions combined: 0 g/km; CO_2 class: A

Taycan Turbo S (WLTP)*: Electrical consumption combined: 19.9 – 17.8 kWh/100 km; CO_2 emissions combined: 0 g/km; CO_2 class: A

Taycan (WLTP)*: Electrical consumption combined: 19.1 – 16.1 kWh/100 km; CO_2 emissions combined: 0 g/km; CO_2 class: A

Taycan 4S (WLTP)*: Electrical consumption combined: 20.1 – 17.6 kWh/100 km; CO_2 emissions combined: 0 g/km; CO_2 class: A

Taycan Turbo S (Predecessor model)

*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).

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