

Cayenne Turbo Electric (WLTP)*: Electrical consumption combined: 22.5 – 20.4 kWh/100 km; CO_2 emissions combined: 0 g/km; CO_2 class: A

From air curtains to air blades: wind tunnel innovations boost efficiency

24/07/2026 From air curtains to air blades: wind tunnel innovations boost efficiency

With a drag coefficient of 0.25, the new Cayenne Electric (**Cayenne Electric (WLTP)*:** Electrical consumption combined: 22.0 – 19.7 kWh/100 km; CO_2 emissions combined: 0 g/km; CO_2 class: A) is one of the most aerodynamic SUVs in its class. Thanks to its even more raked roofline, the Coupé achieves a figure of just 0.23. Particularly impressive is what is known as the drag area, i.e. the product of the drag coefficient and the frontal area: this cdxA value is 0.71 m^2 (SUV) and 0.65m^2 (Coupé). This puts the Cayenne Electric on a par with mid-size vehicles, which means noticeable advantages in terms of range and consumption in everyday use.

The basis for this excellent aerodynamic performance is the overall package of a lowered flyline, almost completely enclosed underbody and many detail optimisations. Indeed, the front was designed in such a way that the airflow hugs the vehicle as closely as possible. This made it possible to achieve minimal drag while at the same time maintaining a striking design language. In addition, the Cayenne Electric

has been carefully tuned in the wind tunnel to exploit even the smallest improvement in the cd value. Every element of the body has been optimised in close collaboration between aerodynamics and design. The three-dimensional air curtain directs the air past the front wheels, thereby reducing unwanted air turbulence at the front, wheel arches and wheels.

Porsche Active Aerodynamics (PAA) precisely adjusts the aerodynamic properties to the respective driving situation and speed. In addition to an efficient control strategy for minimum drag in everyday use and on long journeys, the system also contributes to the brand's signature driving dynamics. These are the active aerodynamic elements in the Cayenne Electric:

- Movable cooling air flaps are located at the bottom of both sides of the front section. Designed to be almost flush with the outer skin, they follow the contour of the front end. Only the centrally placed radar sensor interrupts them.
- The adaptive roof spoiler – or, on the Coupé, the adaptive rear spoiler – controls the airflow at the rear. Together with the cooling air flaps, they allow for a variable balance between efficiency, downforce and cooling performance – for example, for long-distance journeys or spirited driving on track.
- At the rear of the Cayenne Turbo models, active aeroblades extend the lateral tear-off edges and improve the flow characteristics. This leads to an increase in range, especially at higher speeds. From 55 km/h, the aeroblades automatically extend to optimise the range. When Launch Control is activated, they extend even when the vehicle is stationary. When extended, the GPS coordinates of the wind tunnel at the Porsche Development Centre in Weissach and the wording 'Porsche Active Aero' can be seen on their surface – a tribute to the engineering behind this innovation.

Further aerodynamic details include special aero wheels and an optimised diffuser at the rear. The combination of these features results in a very low drag coefficient – a key feature for long range.

MEDIA ENQUIRIES



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Consumption data

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

Video

https://newstv.porsche.com/porschevideos/newstv.porsche.com_327847_en.mp4

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