Macan sets new standards: the first all-electric SUV from Porsche

26/01/2024 Porsche is launching its second all-electric model.

The new Macan with powertrains of up to 470 kW (639 PS, Macan Electric Models: Electric power consumption* combined (WLTP) 21.1 – 17.9 kWh/100 km, CO emissions* combined (WLTP) 0 g/km, Electric range* combined (WLTP) 516 – 613 km, Electric range* in town (WLTP) 665 – 784 km) delivers E-Performance on any terrain and a high level of day-to-day usability. Sports-car-like performance figures are matched by high-performance fast charging at up to 270 kW and up to 613 km of range in WLTP.

Ten years after its launch, the Porsche Macan is heading into its second model generation, now in all-electric form. Through its progressive, timeless design, characteristic Porsche performance, long-distance range and high everyday practicality, the new Macan 4 and the new Macan Turbo aim to completely fulfil the requirements of Porsche customers choosing an SUV. “We are taking the Macan to a completely new level — with exceptional E-Performance, the new Driver Experience, and a very impressive design,” said Oliver Blume, Chairman of the Executive Board of Porsche AG, on the occasion
of the world premiere in Singapore.

“Our aim is to offer the sportiest model in its segment with the all-electric Macan,” says Jörg Kerner, Vice President Product Line Macan. Porsche exclusively uses the latest generation of permanently-excited PSM electric motors on the front and rear axles to achieve excellent efficiency and enable optimum reproducibility of the power output. The numbers alone indicate top-class E-Performance: In combination with Launch Control, the Macan 4 produces up to 300 kW (408 PS, Macan 4 Electric: Electric power consumption* combined (WLTP) 21.1 – 17.9 kWh/100 km, CO emissions* combined (WLTP) 0 g/km, Electric range* combined (WLTP) 516 – 613 km, Electric range* in town (WLTP) 665 – 784 km) of overboost power, while the Macan Turbo boasts up to 470 kW (639 PS, Macan Turbo Electric: Electric power consumption* combined (WLTP) 20.7 – 18.8 kWh/100 km, CO emissions* combined (WLTP) 0 g/km, Electric range* combined (WLTP) 518 – 591 km, Electric range* in town (WLTP) 670 – 765 km). The maximum torque is 650 and 1,130 Nm, respectively. This guarantees excellent driving performance. The Macan 4 accelerates from a standstill to 100 km/h in 5.2 seconds, while the Macan Turbo takes just 3.3 seconds. The two models achieve top speeds of 220 and 260 km/h, respectively.

New Premium Platform Electric with 800-volt architecture

The electric motors draw their energy from a lithium-ion battery in the underbody, with a gross capacity of 100 kWh, of which up to 95 kWh can be actively used. The HV battery is a central component of the newly developed Premium Platform Electric (PPE) with 800-volt architecture, used by Porsche for the first time in the new Macan. The DC charging output is up to 270 kW. The battery can be charged from 10 to 80 per cent within approximately 21 minutes at a suitable fast-charging station. At 400-volt charging stations, a high-voltage switch in the battery enables bank charging by effectively splitting the 800-volt battery into two batteries, each with a rated voltage of 400 volts. This enables particularly efficient charging, without an additional HV booster, at up to 135 kW. AC charging at up to 11 kW is possible at household wall boxes.

Up to 240 kW of energy can be recuperated via the electric motors while driving. The Integrated Power Box (IPB) also contributes to the efficiency of the new Macan models, while also saving weight and space. The innovative and compact IPB combines three components – the on-board AC charger, the high-voltage heater and the DC/DC converter. The combined WLTP range is up to 613 km in the Macan 4 and up to 591 km in the Macan Turbo.

Sporty proportions and coupé-like lines

Thanks to the sharper proportions and Porsche Design DNA, the new Macan models look dynamic and dominant. “With the all-electric Macan, we are presenting the first Porsche that we are taking electric from an established product identity,” says Michael Mauer, Vice President Style Porsche. “The new Macan is clearly recognisable by its brand identity as part of the Porsche product family. The classic
Porsche proportions have been further developed and optimally adapted to the challenges of an electric vehicle. This has further heightened the sporty, modern and dynamic appearance of the Macan. The design makes it clear: The Macan remains the sports car in its segment, even in electric form.”

The shallow pitch of the bonnet and the strongly pronounced wings give the entry-level SUV, which is 4,784 mm long, 1,938 mm wide and 1,622 mm high, a dynamic appearance even when stationary. The new Macan is fitted with up to 22-inch wheels with staggered tyre fitment. The wheelbase, which is 86 mm longer than the previous model (2,893 mm), is offset by short overhangs at the front and rear. The headlights are divided into two parts: the flat upper light unit with four-point daytime running lights is embedded in the wings and emphasises the width of the car. The main headlight module with optional matrix LED technology is positioned slightly lower in the front end. The characteristic Porsche flyline forms a unit with the flat rear window. In combination with the frameless doors with characteristic side blades, the result is a sleek, sporty design. Strongly pronounced shoulders give the rear a muscular look. The Porsche logo now sits in the centre of the sculptural 3D light strip.

**Active and passive aerodynamics for greater range**

Porsche combines its design DNA with aerodynamics optimised for range. Thanks to the Porsche Active Aerodynamics (PAA) with active and passive elements and a drag coefficient of 0.25, the new Macan is one of the most streamlined SUVs on the market – with positive effects on range and power consumption. The PAA system includes the adaptive rear spoiler, active cooling flaps on the front air intakes and flexible covers on the fully sealed underbody. Air curtains below the headlight module and the low-slung front end optimise the air flow. At the rear, lateral tear-off edges and the louvred diffuser ensure aerodynamic efficiency.

**Two luggage compartments and increased interior space**

The new Macan is a performance-oriented SUV with a high level of practicality for everyday use, high-quality equipment and spacious configuration. Electrification has led to increased luggage space in the Macan. Depending on the model and equipment fitted, the capacity behind the rear seat bench is up to 540 litres (cargo mode). In addition, there is the ‘frunk’, a second luggage compartment under the bonnet with a capacity of 84 litres. This amounts to 136 litres more than the previous model. If the rear seat backrest is folded down completely, the rear luggage compartment capacity increases to up to 1,348 litres. The maximum towing capacity of 2,000 kg rounds off the highly practical qualities of the new Macan.

Depending on the model and equipment fitted, the driver and front passenger now sit up to 28 mm lower than before, while the rear passengers sit up to 15 mm lower with increased legroom. The interior is unmistakably Porsche: the width of the cockpit is emphasised by an integrated black panel. The rising design of the centre console heightens the impression of a low and performance-focused position in the vehicle. At the same time, large windows give a light and airy feel to the interior space. In addition to
the modern digital user interfaces, there are also select analogue control elements – for example, on the air vents and the air conditioning controls. An LED light strip is integrated into the thoughtfully designed trim strip of the cockpit and doors. It acts as both ambient lighting and a communication light. Depending on the situation, it provides information or warnings – such as for greetings, charging processes or in conjunction with the driver assistance systems. The equipment in the new Macan enables a high degree of customisation.

Porsche also aims to use more ecological materials in its cars. A proportion of such materials is used in selected parts in the interior of the all-electric Macan.

**Driver experience: high computing power and connectivity**

The Macan is equipped with the latest-generation display and operating concept with up to three screens, including the free-standing 12.6-inch, curved-design instrument cluster and the 10.9-inch central display. For the first time, the passenger can also view information, adjust settings on the infotainment system or stream video content while the car is being driven via their own optional 10.9-inch screen. For the first time, the Porsche Driver Experience also includes a head-up display with augmented reality technology. Virtual elements such as navigation arrows are visually integrated seamlessly into the real world. The image appears to the driver at a distance of 10 metres and corresponds to the size of an 87-inch display.

The new-generation infotainment system is based on Android Automotive OS. The standard Porsche Communication Management (PCM) in the new Macan takes computing performance to a new level. For example, the “Hey Porsche” voice assistant suggests routes, including charging stops, at lightning speed. In the new Porsche App Centre, passengers can directly access popular apps from third-party providers and install them directly in the new Macan.

**First Macan with rear-axle steering and two-valve dampers**

Porsche developed the Macan with a keen focus on quintessential Porsche driving dynamics and a characteristic steering feel. “Thanks to its particularly sporty seat position and low centre of gravity, as well as its impressive driving dynamics and steering precision, the new Macan delivers a real sports car feeling,” explains Product Line Vice President Jörg Kerner.

Both the Macan 4 and the Macan Turbo have all-wheel drive. The two electric motors are controlled via the power electronics almost in real time. The electronically controlled Porsche Traction Management (ePTM) operates around five times faster than a conventional all-wheel drive system and can respond to slip within 10 milliseconds. In addition, the all-wheel drive distribution is governed by the selected driving programme. Porsche Torque Vectoring Plus (PTV Plus), an electronically controlled differential lock on the rear axle, also contributes to the traction, driving stability and lateral dynamics of the Macan Turbo.
Macan models with air suspension – also standard on the Turbo – are equipped with the Porsche Active Suspension Management (PASM) electronic damping control. This can also be combined with the steel-spring suspension as an option. PASM now also features dampers with two-valve technology. Thanks to the more expansive damper map, this results in a wider spectrum between comfort and performance. This makes the differences between the driving programmes even more tangible.

For the first time, the Macan has optional rear-axle steering, with a maximum steering angle of five degrees. It enables a compact turning circle of 11.1 metres in urban traffic and when manoeuvring, while simultaneously enabling exceptional driving stability at higher speeds, ably assisted by the consistent and precise front-axle steering for which the brand is known.

Since 2014, Porsche has delivered more than 800,000 examples of the Macan worldwide. This success story is set to continue with this all-electric successor, which is produced in a net carbon neutral way at the Porsche Plant Leipzig. The new models will be delivered to the first customers during the second half of the year.

**Consumption data**

**Macan Electric Models**

Fuel consumption / Emissions

- **WLTP**
  - Electric power consumption* combined (WLTP) 21.1 – 17.9 kWh/100 km
  - CO emissions* combined (WLTP) 0 g/km
  - Electric range* combined (WLTP) 516 – 613 km
  - Electric range* in town (WLTP) 665 – 784 km

**Macan Turbo Electric**

Fuel consumption / Emissions

- **WLTP**
  - Electric power consumption* combined (WLTP) 20.7 – 18.8 kWh/100 km
  - CO emissions* combined (WLTP) 0 g/km
  - Electric range* combined (WLTP) 518 – 591 km
  - Electric range* in town (WLTP) 670 – 765 km
Macan 4 Electric
Fuel consumption / Emissions

WLTP*
Electric power consumption* combined (WLTP) 21.1 – 17.9 kWh/100 km
CO emissions* combined (WLTP) 0 g/km
Electric range* combined (WLTP) 516 – 613 km
Electric range* in town (WLTP) 665 – 784 km

*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 Personenwagen" (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).

Video
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