



The new ID.7

Covered Drive

Alicante, Spring 2023

Notes:

1. Camouflaged near-production prototype – the vehicle is not offered for sale.
2. ID.3 – power consumption in kWh/100 km: 16.4–15.2; CO₂ in g/km: 0. Only consumption and emission values in accordance with WLTP and not in accordance with NEDC are available for the vehicle. Information on consumption and CO₂ emissions, shown in ranges, depends on the selected vehicle equipment.
3. ID.4 – ID.4 Pro Performance, 150 kW (204 PS) – combined power consumption in kWh/100 km: 16.5; CO₂ emissions combined in g/km: 0. Only consumption and emission values in accordance with WLTP and not in accordance with NEDC are available for the vehicle. Information on consumption and CO₂ emissions, shown in ranges, depends on the selected vehicle equipment.
4. ID.5 – ID.5 Pro Performance, 150 kW (204 PS) – combined power consumption in kWh/100 km: 16.4; CO₂ emissions combined in g/km: 0. Only consumption and emission values in accordance with WLTP and not in accordance with NEDC are available for the vehicle. Information on consumption and CO₂ emissions, shown in ranges, depends on the selected vehicle equipment.
5. ID.6 – The car will not be offered for sale in Germany.
6. ID. Buzz – ID. Buzz Pro: Combined power consumption in kWh/100 km: 21.7–20.6; CO₂ emissions combined in g/km: 0. Only consumption and emission values in accordance with WLTP and not in accordance with NEDC are available for the vehicle. Information on consumption and CO₂ emissions, shown in ranges, depends on the selected vehicle equipment.
7. ID.7 Pro: Forecast value – camouflaged near-production prototype, the vehicle is not offered for sale.
8. ID.7 Pro S: Forecast value – camouflaged near-production prototype, the vehicle is not offered for sale.
9. Forecast values – the vehicle is not offered for sale / Predicted WLTP range for completion of the Worldwide Harmonized Light Vehicles Test Procedure (WLTP) cycles on a rolling road test bed (not in series-production condition). WLTP range values for production vehicles may vary depending on equipment. The actual range achieved under real conditions varies depending on the driving style, speed, use of comfort features or auxiliary equipment, outside temperature, number of passengers/load, and topography.



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Initial facts about the new ID.7: launch of the large electric Volkswagen

- Future ID. flagship model: the new ID.7¹ will enhance the upper mid-size class in Europe, Asia and North America
- New high-efficiency drive: with a new electric drive motor and battery sizes of 77 kWh¹ and 86 kWh¹ (net), the ID.7 will permit long ranges
- Aerodynamic: with a drag coefficient of approximately 0.23 (depending on equipment) and a frontal area of 2.45 m², the new ID.7 is one of the most aerodynamic five-metre saloons
- The electric business class: enhanced DCC running gear and adaptive seat climate control and massage functions make the ID.7 perfect for long journeys
- Reinvented cockpit design: augmented reality head-up display as standard allows a new instrument concept and focus on the road

Wolfsburg – The countdown to the launch of the new ID.7¹ has started: the world premiere of the largest electric Volkswagen will take place on 17 April, and Europe's highest-volume car manufacturer can now provide the first facts about this future ID. flagship model. The launch of the saloon on the European market is scheduled for this autumn. The launch of the ID.7 in China is also planned for 2023. North America is set to follow in 2024. Following the ID.3², ID.4³, ID.5⁴, ID.6⁵ (China only) and ID. Buzz⁶, the new ID.7 is the sixth Volkswagen based on the modular electric drive (MEB) platform. Volkswagen plans to increase the share of its electric models to 80 per cent in Europe by 2030. The new ID.7 is an important milestone on this path. The new model will be built in the German Volkswagen plant in Emden for Europe and North America.

Positioning:

electric Volkswagen in the upper mid-size class

With the new ID.7, Volkswagen will in future have a second, strong mid-sized model (B segment) in its European range alongside the Passat Estate. Due to its size, high-quality appearance and advanced technical features, the electric Volkswagen already comes very close to the C segment. The ID.7 is 4,961 mm long. A large wheelbase of 2,966 mm extends between the front and rear ends of the business class model. This creates plenty of space for passengers, a luggage compartment with a capacity of 532 litres, and powerful batteries. Equipped with a large boot lid, the ID.7 is 1,862 mm wide (without exterior mirrors) and 1,538 mm high.

Aerodynamics:

low drag coefficient for greater range

The ID.7 is still camouflaged with QR code pixellation. Nevertheless, its stretched proportions already allow initial conclusions to be drawn about the aerodynamic body design. The drag coefficient is approximately 0.23 (depending on equipment) and the frontal area is 2.45 m². And this contributes to increasing the range of the ID.7. Easily recognisable in the car's silhouette are the low front edge of the bonnet, the flat angle

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of the windscreen, the long and yet still coupé-like roof line, and the separation edge on the slightly drawn-in rear end. Together, these elements create a basic body form with excellent aerodynamic properties.

The almost completely closed front end is particularly eye-catching. There are openings only in the lower area in the form of a central cooling air intake and side air inlets. These inlets – known as air curtains – route air to the front wheels to calm turbulence. The radiator blind behind the central cooling air opening is invisible but nevertheless has an important function. It is closed automatically as soon as no cooling air is needed.

In the lower area of the still camouflaged body, it is possible to easily recognise the strikingly flared side sills of the ID.7. They prevent air from flowing into the smooth underbody area and to the rear tyres and therefore also optimise the aerodynamics. At the rear, a diffuser under the bumper ensures the best possible routing of the air flow. The designs of the exterior mirrors and the up to 20-inch alloy wheels are also included in the aerodynamic measures. Each individual measure reduces energy consumption and increases range.

Increased performance:

Significantly longer ranges

The ID.7 will be launched in two equipment and drive versions (Pro^{7/9} and Pro S^{8/9}) and is the first MEB model to be equipped with a highly efficient drive that has been newly developed by Volkswagen. The central module of this drive is a new electric drive motor. It is the most powerful and highest-torque electric drive motor in a Volkswagen ID. model so far. It forms a module that is integrated into the driven rear axle together with the two-stage 1-speed gearbox and inverter – the intelligent drive control.

The lithium-ion battery in the sandwich floor will be available in two sizes: on board the ID.7 Pro^{7/9}, the first version offers a net energy content of 77 kWh (gross: 82 kWh). The second battery version, being introduced at a later date, will offer a net energy content of 86 kWh (gross: 91 kWh) in the ID.7 Pro S^{7/9}.

Official consumption figures and ranges are not yet available for the new Volkswagen, but early forecasts show how efficient the new drive is: with the 77 kWh battery, the WLTP range of the ID.7 Pro^{7/9} could be up to approximately 615 kilometres^{7/9}. The ID.7 Pro S^{8/9} with the 86 kWh battery could even achieve a WLTP range of up to approximately 700 kilometres^{8/9}. The ID.7 therefore underlines its long-distance suitability for frequent drivers and fleet customers. The battery of the ID.7 Pro can be charged with up to 170 kW at DC fast charging stations; the ID.7 Pro S to be introduced at a later date can be charged with up to 200 kW.



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The new drive in detail:

Significant power with high efficiency

The new and particularly efficient drive essentially consists of the electric drive motor (three-phase permanent magnet synchronous motor), the two-stage 1-speed gearbox, and the inverter (power and control electronics). The increased power and efficiency of the electric drive motor in the ID.7 are the result of details such as a rotor with stronger permanent magnets that offer high thermal load capacity, a further-developed stator with a larger effective number of windings in combination with maximum wire cross-section, as well as a water heat sink for the outside of the stator and a new, combined oil and water cooling system that also ensures high thermal stability. The thermal stability is safeguarded by a new inverter generation, and the high thermal load capacity is an elementary contributing factor to the increased efficiency of the new drive. Numerous low-friction gearbox components have also been reinforced to withstand the high power and torque values.

The inverter, developed together with its software by Volkswagen, has many talents: among other things, it converts the direct current (DC) stored in the battery into the three-phase alternating current (AC) needed by the electric drive motor. It also controls the complete energy flow between the battery and motor. Every acceleration or recuperation process is processed by this electronic brain of the drive. During recuperation, the inverter converts the generated alternating current into direct current which is then stored in the battery. It also monitors the temperature of the electric motor. This means the inverter – also referred to as the power and control electronics – has a decisive influence on efficiency. And that is particularly high in the ID.7.

Running gear:

high level of comfort and precise steering

The new ID.7 is a comfortable touring saloon whose balanced damping in combination with the long wheelbase offers a high level of comfort in all driving situations. At the same time, the ID.7 offers spontaneous agility. This large spread between comfort and agility is possible thanks to the basic layout of the running gear, the enhanced adaptive chassis control (DCC) and an adapted driving dynamics manager. The comfort in the ID.7 is further optimised by new details such as specifically tuned, high-damping elasto-kinematic mounts on the rear axle. The vehicle's low centre of gravity, thanks to battery placement in the vehicle floor, also has a positive impact on handling – just like every ID. model.

The basic layout of the running gear consists of a MacPherson front axle and a five-link rear axle. The control system of the optional adaptive chassis control (DCC) has also been refined. The DCC controller is equipped with new Volkswagen software and uses more vehicle sensor signals; it can therefore detect better than ever before how the wheels and body are moving in order to control the shock absorbers by means of refined algorithms. Thanks to DCC, the driver also has the option of adjusting the running gear to a more sporty or comfortable setting by means of the selected driving profile (Eco, Comfort and Sport) and also in Individual mode by means of a slide control. In addition, a new setup of the driving dynamics manager – also developed by Volkswagen – makes this large spread between comfort and agility possible in the ID.7. The driving dynamics manager coordinates and optimises the lateral dynamics as the



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central control unit and continuously ensures maximum driving stability (e.g. when braking into a bend).

The enhanced progressive steering was also reconfigured for the ID.7; it responds directly and precisely from the centre position and makes a noticeable contribution to the linear driving behaviour typical for a Volkswagen.

Interior space and operating concept:

AR head-up display as standard permits new cockpit architecture

The electric touring saloon from Volkswagen welcomes the driver and passengers with a completely newly designed and high-quality interior. Thanks to the long wheelbase of 2,966 mm, the ID.7 offers extremely generous space in both the front and rear seats. The large amount of legroom in the rear is particularly noteworthy. The concept of the ID.7 cockpit follows a new and immediately noticeable path: there are no longer any conventional instruments in the large electric Volkswagen. Instead, the ID.7 uses a small, digital cockpit with an augmented-reality head-up display fitted as standard. The small cockpit shows the necessary standard information and warnings, and the driver receives other important information via the head-up display. The driver therefore concentrates automatically on information from the head-up display, which is projected virtually and, in some cases, interactively into the field of vision in front of the vehicle. Drivers can therefore keep their eyes on the road – and that helps to increase comfort. The 38-centimetre (15-inch) infotainment display with a completely new menu structure is also ideally visible and reachable. Among other things, the settings of the air-conditioning system and access to the seat heating, seat ventilation and seat massage functions are shown at all times on the display. Touch sliders beneath the display for operating the air conditioning system are backlit.

Background lighting:

ten colours as standard, up to 30 as option

The new ID.7 is equipped as standard with a background lighting system that offers a spectrum of ten colours. The trims in the dash panel and doors can also be illuminated if desired. A background lighting system with 30 colours will be optionally available. The driver and front passenger can activate various pre-programmed light atmospheres such as Vitality or Euphoria using the central infotainment display. In addition, the interior lighting is automatically adapted to the respective driving profile.



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Sound system from Harman Kardon:

16 channels and 700 W output

Volkswagen will offer a 700 W premium sound system from Harman Kardon for the ID.7. It will include 14 high-end loudspeakers, including a centre speaker at the front and a subwoofer in the luggage compartment. The 16-channel sound system offers four preconfigured sound settings: Pure (neutral studio sound), Relax (easy listening), Speech (focus on spoken words) and Vibrant (dynamic live sound). The sound can also be tailored using an equalizer for individual preferences. It is also possible to direct the listening focus specifically to one or more of the four outer seats of the ID.7. Drivers can adjust the sound focus completely to their seat position when driving on their own, for example. It is also possible to focus the sound towards the rear of the vehicle. Harman Kardon achieves the impressive sound experience in the ID.7 using the Fraunhofer Sonamic Panorama algorithm. This clearly separates individual instruments, voices and sound sources in a piece of music and arranges them on a U-shaped sound stage that surrounds all passengers.

ergoActive seats:

Adaptive seat Climatronic and new massage system

Volkswagen has developed a new generation of driver and front passenger seats for the ID.7. Depending on the version, these new seats offer up to 14 electrical adjustment options. In addition to adaptive seat Climatronic, they also have a completely newly designed massage function. The climate control and massage functions are continuously displayed by means of touch controls on the top level of the infotainment system, where they can also be switched on and off and adjusted.

In addition to the individual settings, the driver and front passenger can alternatively activate an automatic mode for the seat climate; here, temperature and moisture sensors in the seats detect the cooling and/or heating requirement and control the climate accordingly. Three special modes can also be selected: maximum heating, maximum ventilation or maximum drying. All three modes are activated for a limited time and switch off automatically. For the first time, the intensity of the heating and ventilation can be adjusted separately for the seat cushion and backrest. The bolsters of the seat cushion and backrest are also heated and ventilated.

The newly developed massage function of the optional ergoActive seats for the driver and front passenger offers a particularly high level of comfort. The ergoComfort seats of the ID.7 are equipped with ten air cushions in the backrest that provide a pneumatic pressure point massage. The goal is to relax and activate the back muscles. The ergoPremium seats have two additional large air cushions in the seat cushion. The goal here is to activate the pelvis and spine. These new seats define a standard in the ID.7 segment that was previously known only in the luxury class.

The massage menu allows various programs such as Circling to be selected and the respective intensity and duration (ten to 30 minutes) to be set – but the massage function does more than just improve comfort. The Comfort and Premium ergoActive seats in the ID.7 also have a seal of approval from the independent German Campaign for Healthier Backs (AGR). Ulrich Kuhnt, AGR expert advisor: "The spine is the central axis organ. If it moves, the whole body from head to foot also moves. The activation



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system integrated in the seat makes use of this anatomic characteristic. It prevents muscular tension in the back, enhances the general feeling of well-being and increases the user's concentration on the traffic."

Air conditioning with smart air vents:

Volkswagen is launching a completely new air conditioning system with the ID.7

In the Phaeton luxury saloon, Volkswagen presented one of the best air conditioning systems in the world at the time as a technical milestone. It offered practically draught-free ventilation of the interior for the first time, and the vents opened and closed automatically. A new air-conditioning system now follows with the ID.7 that also features active control of the vents. Here, smart air vents with electronically controlled vertical and horizontal motors open and close interactively and distribute air quickly over a large area of the interior through dynamic movement. What's more, cooling or heating starts as soon as the driver approaches the ID.7 with the key.

The vents are controlled using the central infotainment display. Many air conditioning functions can also be started by intuitive voice control (IDA): The ID.7 responds to the driver saying "Hello IDA, my hands are cold" by activating the steering wheel heating – warm air is also directed onto the hands at the same time. If necessary, however, the vents can also be adjusted manually.

Made in Germany:

investment of more than one billion euros in the German ID.7 plant:

Series production of the ID.7 will start in the German Volkswagen plant in Emden from the middle of June. It is planned to deliver the new model from here to Europe and, from 2024, also to North America. The ID.4 is already built in Emden, and since 2022 employees at the tradition-rich Volkswagen site have been making all the preparations necessary for the scheduled start of production of the ID.7. Six new production and logistics halls have been built including a new assembly hall, a finish hall and a fully-automated high-bay warehouse. Changes have also been made to the existing structures, including the body and paint shops. A new finish hall has also been built for the electric vehicles. Volkswagen has invested more than one billion euros in the transformation of the plant into an MEB production site. About 8,000 employees work at the Volkswagen plant in Emden.

UNECE for the ID.7:

type approval of the ID. flagship model in accordance with new regulations

Security is becoming increasingly important, as users of ultra-modern and connected vehicles such as the ID.7 need protection from cyber attacks. Volkswagen has established processes for this as a Group across all brands. Parallel to this, UNECE (United Nations Economic Commission for Europe) has defined requirements for manufacturer certification and a type approval process for vehicles. The focus here in particular is on the control units and the software that accesses vehicle functions.

UNECE has also defined regulations for development and implementation processes. These are intended to ensure automotive software can be updated and is secure. The two relevant UNECE standards in this context are UN R155 "Cyber security and cyber security management system" and UN R156 "Software update and software update management system". Accompanying these standards, UNECE has defined

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management systems for control, documentation and optimisation of the processes. Manufacturers have been required to comply with these regulations for type approval of new vehicle models since the middle of 2022. Compliance must be audited and certified. Volkswagen has been successfully audited and certified by the Federal Motor Transport Authority (KBA). The new ID.7 is therefore one of the first new Volkswagen models to be developed and homologated in accordance with UNECE regulations.