



The new Golf Hybrid

The new T-Roc Hybrid

Golf & T-Roc Hybrid Drive

October 2026

Notes

1. Purely electric driving is dependent on the battery charge level and the respective load requirement. It is only available for short distances. The ageing and wear of the battery can influence the electric range and speed over the life cycle.
2. Golf Hybrid 100 kW – Combined energy consumption 5.0–4.5 l/100 km; combined CO₂ emissions 114–103 g/km, CO₂ class: C
3. Golf Hybrid 125 kW – Combined energy consumption 5.1–4.6 l/100 km; combined CO₂ emissions 117–104 g/km, CO₂ class: D–C
4. T-Roc Hybrid 100 kW – Combined energy consumption 5.5–4.9 l/100 km, combined CO₂ emissions 126–113 g/km; CO₂ class: D–C
5. T-Roc Hybrid 125 kW – Combined energy consumption 5.6–5.0 l/100 km, combined CO₂ emissions 127–115 g/km; CO₂ class: D–C
6. Golf eHybrid 110 kW (150 PS) / 85 kW (116 PS) – Combined weighted energy consumption: 12.9–12.1 kWh/100 km plus 1.3–1.1 l/100 km; combined fuel consumption with discharged battery 5.3–5.0 l/100 km; combined weighted CO₂ emissions 29–25 g/km; combined weighted CO₂ class: B; CO₂ class with discharged battery: D–C
7. Golf GTE – Weighted combined energy consumption: 13.0–12.8 kWh/100 km plus 1.4–1.3 l/100 km; combined fuel consumption with discharged battery: 5.4–5.3 l/100 km; weighted combined CO₂ emissions: 32–30 g/km; weighted combined CO₂ class: B; CO₂ class with discharged battery: D
8. Golf Life eTSI (85 kW) – Combined energy consumption 5.8–5.1 l/100 km; combined CO₂ emissions 131–117 g/km, CO₂ class: D
9. Golf Style Hybrid (125 kW) – Combined energy consumption 5.1–4.6 l/100 km; combined CO₂ emissions 115–104 g/km, CO₂ class: C
10. Golf R-Line Hybrid (125 kW) – Combined energy consumption 5.1–4.6 l/100 km; combined CO₂ emissions 117–105 g/km, CO₂ class: D–C
11. T-Roc Life Hybrid (100 kW) – Combined energy consumption 5.3–4.9 l/100 km, combined CO₂ emissions 122–113 g/km; CO₂ class: D–C
12. All equipment details and prices (incl. VAT) apply to the model range available in Germany. There may be differences for other countries



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No plug, no wallbox: for the first time at Volkswagen, the Golf and T-Roc are available as full hybrids

KEY ASPECTS

- **Efficient drive system for the city:** the new hybrid drive in the Golf and T-Roc enables all-electric driving up to approx. 60 km/h without external charging¹
- **Low consumption:** the new hybrid models achieve WLTP consumption values of 4.5–5.1 litres in the Golf and 4.9–5.6 litres in the T-Roc
- **Generator and recuperation replace wallbox:** the Volkswagen hybrid drive uses a second electric motor and braking energy to generate power itself
- **Two power levels:** the Golf Hybrid and T-Roc Hybrid can already be ordered in many European countries – with 100 kW (136 PS)^{2/4} or 125 kW (170 PS)^{3/5} system power

IN BRIEF

Efficient drive system. Volkswagen has developed a new full hybrid drive system for the Golf and the T-Roc. The efficient drive system is called 'Hybrid' and is now making its global debut appearance in the two compact bestsellers. The new drive system comprises the integration of two electric motors and a turbocharged petrol engine (TSI) in one unit. The hybrid drive does not require an external charging interface and still enables all-electric driving up to approx. 60 km/h¹. Its efficiency is clearly reflected in WLTP consumption values of as low as 5.6 litres (depending on model and equipment), coasting with the TSI switched off and long combined WLTP ranges of more than 800 kilometres.

In addition, the new drive system offers excellent performance when moving off and exceptional low-end torque during acceleration, as the electric drive motor supports the four-cylinder turbocharged petrol engine like an electric booster. The driving experience on board the new Golf Hybrid and T-Roc Hybrid is therefore similar to that of all-electric vehicles, especially since a one-speed gearbox transfers the drive power to the front wheels linearly and without any noticeable interruption in tractive power. The newly developed operating strategy automatically coordinates the combination of the drive sources and ensures that switching from a conventional petrol, diesel or mild hybrid vehicle to the new Volkswagen models with full hybrid drive is possible without a long familiarisation period. The Golf Hybrid and the T-Roc Hybrid are available with a system power of 100 kW (136 PS)^{2/4} and 125 kW (170 PS)^{3/5}. Sales of both models have already started in many European countries.

Charging takes place while driving. Depending on the situation, the energy for the electric drive of the Golf Hybrid and the T-Roc Hybrid is generated by recuperation or additionally by the second electric motor working as a generator. In this case, the generator is driven by the TSI engine. The turbocharged petrol engine then temporarily takes over the function of a range extender. Above around 60 km/h, the new hybrid models are powered by the TSI alone or by a combination of the petrol engine and electric motor. The turbocharged petrol engine also switches on as soon as the driver dynamically requests a high output – for example, by using the kickdown function when overtaking.

Media contacts

Volkswagen Communications
Product Communications

Philipp Dörfler
Spokesperson Golf
Tel.: +49 5361 9-87633
philipp.doerfler@volkswagen.de

Andreas Schleef
Spokesperson T-Roc | Tayron
Tel.: +49 151 6556 8488
andreas.schleef@volkswagen.de



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New hybrid for even more choice. With the introduction of the new full hybrid models, Volkswagen is expanding its range in the high-volume compact and SUV segment. The new hybrid system can be identified by the designation 'Hybrid' on the rear of the respective model and closes the gap here between the mild hybrid, which is already available as 'eTSI', and the plug-in hybrids. These can be ordered for the Golf under the label eHybrid⁶ or also as a sporty Golf GTE⁷.

In contrast to a mild hybrid (eTSI), the new full hybrid can be driven with all-electric power. Also important is the fact that unlike with a plug-in hybrid drive, the new full hybrid does not require a wallbox or other external charging options. This is because the Golf Hybrid and T-Roc Hybrid were developed to cater to drivers who value partially electric driving in the city and high drive efficiency, but who do not have access to charging infrastructure in their private or professional environment. This fact also makes the two new hybrid models interesting for markets where electric mobility has so far failed to gain a foothold due to a lack of infrastructure. In addition, a number of markets have legally regulated incentives for consumers choosing a vehicle with lower CO₂ emissions.

Low consumption, long ranges. The new Volkswagen hybrid system has the potential to reduce CO₂ emissions, fuel consumption and thus also fuel costs. A comparison between the Golf Life Hybrid and the Golf Life eTSI⁸ shows this clearly: in the 100 kW version, the new hybrid drive consumes around 11 per cent less than the eTSI with 85 kW (combined WLTP values in each case in the most fuel-efficient version). The WLTP consumption values of the full-hybrid models in detail: for the Golf Hybrid, this results in 5.0 to 4.5 l/100 km (100 kW) and 5.1 to 4.6 l/100 km (125 kW). The corresponding values of the T-Roc Hybrid: 5.5 to 4.9 l/100 km (100 kW) and 5.6 to 5.0 l/100 km (125 kW).

Automatic hybrid control. At speeds up to around 60 km/h and with normal power requirements, the Golf Hybrid and the T-Roc Hybrid drive electrically as often as possible. The new hybrid drive comes into its own in urban areas in particular. This is because the electric motor can replace the TSI engine in operating ranges where an electric motor is more efficient than a petrol engine. This can reduce fuel consumption and emissions and also enhance comfort, as both Volkswagen models are particularly quiet in this case, produce hardly any drivetrain vibrations and deliver a dynamic performance when pulling away as the electric drive motor is able to provide maximum torque straight away. The TSI switches on, for example, if the energy stored in the battery is no longer sufficient for driving on electric power alone or if the vehicle accelerates sharply. In general, the petrol engine also ensures a long combined range. In addition to the fuel range, the driver can also have the overall range displayed on the instrument panel. Parallel to this, the current energy flow can be shown on the infotainment display.

Three smart operating modes. Three modes are available on board the Golf Hybrid and T-Roc Hybrid. These are automatically controlled by the engine/motor control unit depending on the operating profile. The front axle is always powered.

- **Electric driving using the electric drive motor only.** At speeds of up to around 60 km/h, the Golf Hybrid and T-Roc Hybrid are powered by the electric motor alone as often as possible. In this case, the 1.5-litre turbocharged petrol engine is switched off.



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- **Series drive configuration with electric motor and TSI.** Here, too, both Volkswagen vehicles are powered electrically. The TSI is decoupled but active in order to generate energy for the electric motor via a generator motor in an optimal operating window and thus extend the electric range.
- **Parallel drive configuration with TSI and electric motor.** The turbocharged petrol engine is active as the primary drive system from approx. 60 km/h on country roads and motorways. The electric drive motor supports the turbocharged engine as required, for example, as a booster when accelerating. Depending on the operating window of the TSI, energy is also generated here via the generator motor for charging the battery.

Golf Hybrid – versions and performance. The new full hybrid drives are available in the Golf from the Life equipment line upwards. The Golf Life Hybrid² always has the drive with a system power of 100 kW and system torque of 288 Nm on board. The more exclusive Style⁹ and R-Line¹⁰ models are offered with the more powerful 125 kW drive (310 Nm system torque). With the 100 kW system, the Golf Hybrid accelerates from 0 to 100 km/h in 8.8 seconds; with 125 kW, the value for the 0–100 km/h sprint is 7.5 seconds. The maximum speed of all Golf Hybrid versions is limited to 180 km/h.

T-Roc Hybrid – versions and performance. The T-Roc Hybrid is also available from the Life specification upwards. It is also equipped with the 100 kW drive¹¹ in this version. The T-Roc can be configured as both Style and R-Line versions with the two power levels. All T-Roc Hybrid models are electronically limited to a top speed of 180 km/h. The 100 kW versions⁴ accelerate to 100 km/h in 9.7 seconds; with 125 kW⁵, the SUV completes the classic sprint in 8.5 seconds.

In terms of price, the new full hybrid models are positioned between the mild hybrid and a plug-in hybrid. Taking Germany as an example: here the version with 100 kW (136 PS) in the Golf Life² specification is available at prices starting from 37,505 euros¹²; the T-Roc Life with identical engine configuration is offered at a price of 37,545 euros¹².

Configured in just a few steps. As with the T-Roc, Volkswagen has completely restructured the Golf's equipment range for greater clarity, while also upgrading the standard specifications across the board. Volkswagen has linked standard and optional individual features and packages to the respective equipment lines in a way that matches the combinations preferred by customers. This allows the vehicles to be specifically customised beyond their equipment versions.

THE DRIVE TECHNOLOGY IN DETAIL

Two electric motors, one petrol engine. The new hybrid system essentially consists of the high-voltage battery under the rear bench seat, a 1.5-litre four-cylinder turbocharged petrol engine (1.5 TSI evo2) and the hybrid module integrated next to it on the front axle. The latter combines the generator motor, drive motor and a one-speed gearbox (type TQ250-1F) in a modular housing unit. The generator motor also acts as the starter for the TSI engine, while the drive motor is additionally responsible for recuperation. The power electronics – the control centre of the drive – are located on the main housing of the hybrid module.



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Other vehicle components include a high-voltage to 12-volt converter, an electromechanical brake servo and an electric A/C compressor. The latter ensures that the air conditioning functions work even when the TSI is deactivated.

TSI connected to the drivetrain. The TSI is mechanically connected to the drivetrain or hybrid module by a hydraulically actuated clutch. When the clutch is closed, the turbocharged petrol engine transfers its power directly to the front wheels; the electric drive motor supports the TSI when required. This parallel drive is also automatically activated as soon as the Golf or T-Roc exceeds a speed of approx. 60 km/h or if the driver requests a very dynamic power response – for example, by using the kickdown function.

TSI separated from the drivetrain. When the clutch is open, there are two drive modes. If the lithium-ion battery located under the rear bench seat is sufficiently charged, the electric drive motor drives the car on its own up to around 60 km/h. However, if the energy content of the battery is no longer sufficient, the system operates in series: in this case, the combustion engine drives the generator motor, which in turn generates the energy for the drive motor.

Efficient operating strategy. The operating strategy determines which operating mode is activated. Among other things, this control system developed by Volkswagen takes into account the vehicle speed, requested wheel torque, battery charge level, temperature, emission requirements and operating profile of the auxiliary consumers. The aim is to provide the most favourable combination of efficiency, comfort and performance in every situation. The change between the operating modes takes place automatically and is virtually imperceptible. In series operation, the operating strategy ensures that the turbocharged petrol engine operates along an efficiency-optimised curve: The recharging power is only increased to the extent that this improves the overall efficiency. Above the optimal threshold, the system refrains from additional charging. In a later phase, the Volkswagen can use this energy again for all-electric driving. This means that efficient hybrid phases and electric driving shares alternate as required. The efficiency of the overall system is crucial here. The software therefore not only evaluates the consumption of the petrol engine, but also the energy balance of the generator and drive motors, power electronics, battery and mechanical drivetrain.

TSI with 96 kW and 110 kW. The 1.5 TSI evo2 is used as the combustion engine. It is available with two output levels, 96 kW (131 PS at 3,700 rpm) and 110 kW (150 PS at 4,300 rpm). The maximum torque of the 96 kW version is 250 Nm and is available between 1,750 and 3,600 rpm. In this case, the system power and system torque of the overall hybrid drive system are 100 kW (136 PS) and 288 Nm respectively. The 110 kW (150 PS) engine develops its maximum torque of 250 Nm between 1,750 and 4,000 rpm; the system power here is 125 kW (170 PS) and the system torque 310 Nm.

TSI with high efficiency. The four-cylinder direct injection engine is characterised in both output stages by the TSI-evo combustion process and variable turbine geometry (VTG turbocharger). In the TSI evo combustion process, the decisive factor regarding efficiency and power output is the symbiosis of the Miller cycle (early intake valve closing with a high compression ratio of 12.5:1) and VTG turbocharging. Thanks to this combustion process in which the fuel is burned very cleanly, the 1.5 TSI evo2 operates with very high efficiency. This minimises consumption and emissions. Other technical parameters of the TSI include a newly designed inlet camshaft. What's more, as the



Media Information

new hybrid drive covers low load and rpm ranges primarily using electric power, Volkswagen was able to systematically design the turbocharged petrol engine for its particularly efficient operating points. A special speed controller sets the desired operating points of the TSI quickly and reproducibly.

1.6 kWh high-voltage battery. The also newly developed high-voltage battery uses 84 prismatic nickel-manganese-cobalt (NMC) cells and has a gross capacity of 1.6 kWh. The cell chemistry is adapted to the particularly frequent charging and discharging processes in full hybrid operation. A central battery management system monitors the cell voltages, temperature, charge level and power release. The battery is liquid-cooled and designed for a very wide temperature range. Its high power density supports dynamic boosting and rapid energy absorption through recuperation. A special operating strategy ensures that the compact battery is kept in an optimal working range at all times. For this purpose, the control system takes into account both the power reserve for acceleration and the storage capacity for recovered braking energy. As speed increases, the recuperation potential typically grows, while at very high speeds, for example, less additional boost energy needs to be held in reserve. The permissible charge level range is therefore continuously adapted to the driving situation.

Three driving profiles. The driver can choose between three driving profiles on board the new Golf Hybrid and T-Roc Hybrid: Eco, Comfort and Sport. In the Eco driving profile, the maximum system output is limited to 70 per cent, and the boost function is deactivated to reduce energy consumption. The Comfort profile does not limit the system output and allows boosting. In the Sport driving profile, the sporty characteristics are achieved by the drive changing earlier to series mode so that full power is made available quickly. The new hybrid drive thus covers a wide spectrum: from quiet electric driving to efficient long-distance driving and dynamic overtaking manoeuvres.