Volkswagen

The new Golf R Cabriolet

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Notes:

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The new Golf R Cabriolet -

Volkswagen introduces the first R-series Cabriolet

Golf R with open top makes debut as most powerful Volkswagen Cabriolet ever 265 PS Golf R Cabriolet accelerates to 100 km/h in 6.4 seconds

Wolfsburg/Nice, February 2013. For at least a decade now the "R" model identifier has referred to the most powerful Volkswagen cars in the compact class. So far, they have always been cars with solid steel roofs and some with sliding sunroofs. Now, Volkswagen is introducing an open-top R model for the first time: the new Golf R Cabriolet. This sports car will be delivered to customers by spring 2013; and these early purchasers will be driving the most powerful and fastest Golf Cabriolet cars ever. Tremendous propulsive power is generated by a 2.0-litre turbo engine with direct petrol injection (TSI) that develops 195 kW/265 PS. Maximum torque is just as important to dynamic performance: from a low 2,500 rpm, the crankshaft of the TSI thrusts 350 Nm of torque to the standard 6-speed dual clutch gearbox (DSG). This high torque level remains constant up to 5,000 rpm: an impressive torque characteristic and highly agile handling properties are key ingredients of the new Golf R Cabriolet.

6.4 seconds and 8.2 litre fuel consumption. Drivers who make use of the car's full power potential can accelerate the open-top Golf to 100 km/h in just 6.4 seconds. The car's top speed is electronically limited to 250 km/h. The 6-speed DSG is an ideal partner here, shifting quickly and without any interruptions in power transfer. Since the open-top sports car already has lots of power at the lowest revs, and the engine very seldom needs to rev fast, fuel consumption is lower than would be expected for such a high powered car: 8.2 l/100 km (equivalent to 190 g/km CO_2).

Exclusive standard features. As the new range-topping Golf Cabriolet model, in additional to offering standard features such as rollover protection, this model will also feature bi-xenon headlights, LED daytime running lights, LED rear lights, 18-inch alloy wheels, sport seats (front), leather upholstery, automatic climate control, audio system

with CD player, sport chassis and bumpers with a unique motorsport design. However, another key feature of this Golf Cabriolet is its soft top, which ensures a refined drive even when driving at the highest of speeds. It has a standard electro-hydraulic opening mechanism that opens the roof in 9.0 seconds. The exceptionally sporty and well-equipped Golf R Cabriolet will cost 43,325 euros in its domestic market of Germany.

"R" turbo engine

133.6 PS per litre displacement and 6-speed DSG. In the new Golf R Cabriolet, the turbocharger of the very flexible EA113 series direct petrol injection engine offers great variability right up to the highest power ranges. As already mentioned, the engine produces a strong 265 PS which is available from 6,000 rpm. The 1,984 cc four-cylinder engine's power-to-displacement ratio is a respectable 98.3 kW or 133.6 PS per litre. This makes the TSI engine very responsive. The in-line four cylinder engine builds up its impressive propulsive power via a turbocharger (up to 1.2 bar charge pressure) and an intercooler. The pistons of the four cylinder were equipped with reinforced bolts compared to the less powerful TSI versions. Engine designers also made the connecting rods stronger to transfer the high torque reliably to the crankshaft. Last but not least, the cylinder block was also reinforced to handle the higher engine forces. The TSI's power is transferred to the front wheels via a standard 6-speed DSG transmission.

"R" sport chassis

Ride height is 25 mm lower. With regard to its "R" running gear, the Golf R Cabriolet retains the sophisticated suspension layout of other open-top Golf models. This means familiar suspension struts with coil springs and telescoping dampers at the front and multi-link suspension at the rear to ensure that the electronic stabilisation programme seldom needs to intervene. The ride height for the R model was lowered by 25 mm, however, and the springs, dampers and stabilisers were given a sporty tuning in keeping with the vehicle's character.

Adaptive chassis control. The DCC adaptive chassis control system is available as an option; its behaviour has also however been synchronised to match the character of the Golf R Cabriolet. The system continually adapts chassis damping to the road and driving situation. Along with the standard "Normal" mode, the driver may also manually activate a "Sport" or "Comfort" damper control setting.

Powerful brakes and handling properties. The brake system was modified for the higher driving performance of the Golf R Cabriolet as well. Instead of a 16-inch system, a 17-inch system is used which features internally ventilated discs and "R"-specific brake callipers painted glossy black with an "R" logo at all four wheels. The front discs have a diameter of 345 mm, the rear discs 310 mm. The steering system with electromechanical assist was also given a sportier characteristic. When the Golf R Cabriolet is ordered with the DCC vehicle dynamics control system, the steering assist has a modified characteristic tuned to the selected mode ("Sport", "Normal", "Comfort").

18-inch wheels as standard. Standard wheels on the Golf R Cabriolet are 18-inch "Talladega" type alloy wheels in "Sterling Silver" colour with 225/40 size tyres. The same type of wheel can be ordered in an optional 19-inch version with 235/35 tyres. The 19-inch wheels can also be ordered in "Black".

"R" standard features

Safe and comfortable. All versions of the Golf Cabriolet offer standard features such as a soft top that opens and closes fully automatically, automatic rollover protection system; electronic stabilisation programme and air conditioning. The Golf R Cabriolet also offers numerous extra features as standard.

Exterior and wheels. In its body and running gear, the Golf R Cabriolet is distinguished by the following items:

- · Chrome tailpipes (left and right)
- · Wing mirror housings in glossy black look
- · Bi-xenon headlights (headlight housings in black)
- · Brake callipers painted black with "R" logo
- · Diffuser in glossy black look
- · Radiator grille in high-gloss black (with "R" logo on the right side)
- · LED rear lights

- · LED daytime running lights (integrated in bumper)
- · 18-inch alloy wheels
- · Air inlet screen on front bumper in glossy black
- · Motorsport look of the bumpers
- · Rear spoiler in body colour
- · Side sill extensions in body colour

Interior. "R"-specific interior details include the following:

- · Aluminium accents ("Silver Lane") as dashboard and door trim
- · Chrome accents on mirror adjuster switches
- · Chrome surrounds on rotary light switch
- · Aluminium door sill plates with "R" logo
- · Leather handbrake grip
- · Instrument cluster with blue instrument pointers
- Multifunction leather-trimmed steering wheel with aluminium look trim and DSG controls
- · Pedals in stainless steel
- · Gear shift grip is leather-trimmed and has aluminium look
- Sport seats (front) with storage pockets at the back, logos in head restraints (front) and leather seat covers ("Vienna" Cool Leather)
- · Fabric floor mats (front and rear)
- · Decorative seams in "Art Grey"

Function and safety. The Golf R Cabriolet also offers these functional and safety features:

- \cdot Wing mirror on right side lowers for reversing
- · Anti-theft warning system
- · XDS electronic differential lock
- · Automatic climate control (Climatronic),
- Dynamically controlled headlight levelling as well as dynamic and static cornering lights
- · Multifunction display "Plus"
- · ParkPilot (parking assistant)

- · RCD 310 radio system with 4 x 20 Watt
- · Heated windscreen washer nozzles (front)
- · Sport chassis (25 mm lower ride height)
- · 12-V outlet in the boot

The roof

Summer in 9.0 seconds. The roof system of the Golf R Cabriolet was adopted 1:1 from other models in the series. The standard electrohydraulically-operated soft top is activated from a central switch on the centre console. The top can even be opened (9.0 seconds) or closed (11.0 seconds) while driving at speeds up to 30 km/h. Two hydraulic pumps activated by a central switch generate the required pressure. Measures were even taken in this area to ensure that as little noise as possible is produced; the hydraulic unit is therefore enclosed by insulation. The soft top of the Golf Cabriolet is unlatched and latched fully automatically by an electromechanical locking system.

Soft top structure. The soft top consists of a linkage, an interior roofliner, an insulating filler throughout and an exterior cover. Perfection in everyday practicality: the development team designed the joints of the longitudinal seams of the exterior cover fabrics (centre panel and two side panels) so that they serve as an additional drip rail. Perfection in aerodynamics: mounted between the longitudinal frames of the top linkage are a total of 4 roof cross bows and the so-called front roof bow (the first large transverse element behind the windscreen frame). The soft top is joined to the roof bows by fabric retention strips with screw fasteners. Consequently, even at higher speeds, the fabric roof holds its form and that has a positive effect on aerodynamics. To ensure a good view behind the car, the top's heated rear glass window was designed to be especially large for a convertible.

Safety

Rollover protection. Within just a quarter of a second of the vehicle exceeding a predefined transverse acceleration or tilt angle, the cabriolet's rollover protection system shoots up behind the rear headrests. The system's two rollover modules consist of one fixed aluminium profile and one moveable aluminium profile within it that is pretensioned by a spring. The inner profile is held in its rest position by a magnetic switch or solenoid. When triggered by the airbag controller in reaction to an impending rollover, the solenoid opens a holding detent and releases the inner profile. While it shoots up, a support detent runs over a toothed track mounted to the inner profile and prevents the inner profile from dropping back down.

Rear seat backrest can be folded down. The construction of the two deployable modules was made significantly more compact, and so – despite the deployable rollover protection – it became possible to implement a load-through provision similar to that in the new Beetle Cabriolet with a width of 526 mm and a height of 381 mm as well as folding rear backrests.

Body reinforcements. All Golf cabriolets offer maximum all-round safety thanks to its rollover protection system, a reinforced windscreen frame and numerous other structural modifications (underbody, side panels, crossmembers, doors). Its numerous reinforcements also give the 4,266 mm long, 1,782 mm wide and (top up) 1,405 mm high Golf R Cabriolet extremely high torsional rigidity values. In front, the cabriolet has an engine enclosure made of aluminium, and together with its mounting brackets this increases rigidity. In addition, the engine mount acts as a vibration damper to reduce noise at the front of the car. On each side of the car, two lateral reinforcements in the sill area and two diagonal braces, front and rear, as well as the reinforced rear subframe joint lead to further gains in rigidity and a significant reduction in resonant body vibrations. What is referred to as the coefficient of static torsional

rigidity reaches a value of over 13,500 Newton metres per degree; the first resonant torsional frequency lies above 17.5 Hz – first-class for a convertible.

Cabriolet-specific airbags. The protective systems are completed by reinforcements in the doors and standard front and side head-thorax airbags. The latter are specially designed for a cabriolet, since it is of course impossible to mount side head airbags in the roof area. The head-thorax airbags integrated in the lateral sections of the seatbacks therefore deploy next to the driver and front passenger over the entire interior height of the Golf Cabriolet. A standard knee airbag has also been incorporated on the driver's side. In conjunction with the safety belt, this airbag absorbs energy from the pelvic area and the legs, which leads to reduced occupant loading.

Key aspects of the Golf R Cabriolet in alphabetical order

- Assistance and vehicle dynamic systems (some optional): DCC
 adaptive chassis control; Light Assist main beam control; electronic
 stabilisation programme (including anti-lock braking system,
 Brake Assist, traction control, EDS, XDS, engine drag torque
 control, countersteer assist and trailer stabilisation); cruise control
 system including driver alert system; ParkPilot; Rear Assist; road
 sign recognition.
- · Character: The number one cabriolet among the R models!
- Colours at market launch: "Pure White", "Deep Black Pearl Effect", "Reflex Silver Metallic".
- Dimensions: 4,266 mm long, 1,782 mm wide (without wing mirrors),
 2,044 mm wide (with wing mirrors), 1,405 mm high, 2,578 mm
 wheelbase.
- · Drive type: Front-wheel drive.
- Driving performance: 0-100 km/h in 6.4 s; V/max 250 km/h.
- · Equipment version: R.
- Fuel economy and CO₂ values: 8.2 l/100 km and 190 CO₂ (77 kW).
- Gearbox / drive type: Automatic 6-speed dual-clutch gearbox;
 front-wheel drive.
- Infotainment: RCD 310 (standard) and RCD 510 radio-CD systems;
 Radio-CD navigation systems RNS 315 (navigation functionality for RCD 310) and RNS 510 (includes such features as DVD drive, 30-GB hard drive, SD card slot and road sign recognition; MEDIA-IN multimedia socket, CD changer, DAB+ digital radio reception, Dynaudio sound system, mobile telephone preparations.
- Market launch in Germany: Spring 2013.
- Max. engine power and torque:
 195 kW/265 PS at 6,000 rpm;
 350 Nm from 2,500 to 5,000 rpm.

- Price (Germany): 43,325 euros.
- Running gear: MacPherson-type strut suspension at front; multilink suspension at rear.
- Maximum torque: 350 Nm.
- Unladen weight: 1,614 kg (base versions including driver [68 kg], luggage [7 kg] and fuel tank filled to 90 %; calculated as per RL 92/21/EEC.

Technical data

Golf R Cabriolet		195 kW (265 PS)	
Engine, electrics			
Type of engine		4-cyl. petrol engine TSI	
Effective displacement	cm³	1,984	
Mixture formation		Direct petrol injection	
Emissions control system		3-way catalytic converter with Lambda probe	
Power output	kW (PS) at rpm	195 (265) 6,000	
Max. torque	Nm at rpm	350/2,500 - 5,000	
Performance (at curb weight + 200 kg)			
Acceleration 0-80/100 km/h	S	4.7/6.4	
Top speed	km/h	250	
Fuel consumption (99/100/EC)			
Fuel type		Premium 95 RON	
Combined cycle	l/100km	8.2	
Emissions (CO ₂)	g/km	190	
Efficiency label		E	
Exhaust emissions classification		Euro 5	
Power transmission			
Gearbox		Six-speed direct shift gearbox (DSG)	
Wheels		7 ½ J x 18	
Tyres		225/40 R 18	
Exterior dimensions			
Number of doors		2	
Length/width/height	mm	4,266/1,782/1,405	
Wheelbase	mm	2,578	
Track, front/rear	mm	1,535/1,517	
Luggage compartment			
Length, rear seat raised/folded down	mm	691/1,534	
Volume by VDA measurement: roof open/closed	I	250	
Weights			
Unladen weight (EU, incl. 75 kg driver) kg		1,614	
Permitted gross weight kg		2,000	
Payload kg		461	
Perm. axle load, front/rear	kg	1,060/880	
Capacities			
Fuel tank	I	55	