

## RCZ R: performance and efficiency, from Peugeot Sport

**At the Goodwood "Festival of Speed", Peugeot is unveiling the RCZ R, a supercharged version of its sports coupé, symbolic of the marque's expertise in design and driving sensations.**

**Its new 270 hp engine with a capacity of 1.6 l and CO<sub>2</sub> emissions limited to just 145g/km place the RCZ R at an unheard-of level of performance and efficiency.**

**Coherent with this engine, special suspension and wheels combined with a Torsen limited slip differential promise effectiveness and dynamic road holding at a very high level.**

**The RCZ R will have its world première at the Frankfurt Motor Show in September 2013 and will go on sale at the beginning of 2014.**

*"The sporting success of the RCZ Peugeot Sport developed for competition and the passion that it arouses could not go unanswered. A production version developed by Peugeot Sport, even more sporty and with higher-performance than the new RCZ was an obvious move!"*

Bruno Famin, Director of Peugeot Sport

*"Our specification was ambitious, to develop a more intense version of the RCZ, that is ultra-high-performance for sporting use on a circuit, retaining the qualities of comfort and pleasure for everyday use, and all with benchmark consumption and CO<sub>2</sub> emissions."*

Xavier Nicolas, RCZ Product Manager

With 270 hp / 199 kW, the RCZ R becomes the most powerful production model in the history of the Marque.

The RCZ R accelerates from 0 to 100km in less than 6 seconds and demonstrates the Marque's expertise once again with CO<sub>2</sub> emissions of just 145 g/km, which is a benchmark in the category of sports coupés. This result is obtained by mastering the downsizing of the engine, the optimisation of the aerodynamic properties and the reduction in weight.

Downsizing is a strong trend, not only in production, we see it also in motor sport, the main disciplines use a 1.6l turbo engine; even Formula 1 is moving over to it in 2014.

The new 270 hp THP engine with a capacity of just 1.6 l sets a specific power record in the category; with nearly 170 hp/l, it is among the best in the world for a production vehicle and already complies with the Euro 6 emission control standard.



The work carried out on the aerodynamic properties has increased the rear downforce by 15 daN.m thanks to a new spoiler, which favours stability at high speed, without reducing the drag.

The desire to reduce the weight also guided the development of the special parts, resulting in a saving of 17 kg compared to a 200 hp RCZ. With a weight of 1280 kg, the RCZ R therefore has a weight / power ratio of just 4.7 kg/hp.

## An exclusive signature

### Exterior design

*"Every component designed specifically for the RCZ R contributes to its new dynamic performance and sublimates the pure, sleek, style of the RCZ which gives it its own identity."*

Pierre Paul Mattei, RCZ Style Manager

Adorned with *Matt Black* arches and headlamps with an understated *Titanium* tint, the RCZ R sets itself apart with sporting attributes favouring its dynamic effectiveness and treated with refinement.

Its ride height lowered by 10 mm and with wider 19 inch wheels with even more stand out, benefit grip & traction, and give the RCZ R an even more expressive posture, it appears "glued" to the road.

Its special wheel rims, two-tone diamond / matt black, are signed with an 'R' milled directly into the alloy. They have been designed to house and optimise the cooling of the new larger brakes and the red calipers at the front are signed 'Peugeot Sport'.

The large fixed rear spoiler, perfectly integrated, guarantees improved aerodynamic downforce while extending the silhouette from the rear view. The special rear diffuser conforms to the sleek effect which characterises the rear of the RCZ and incorporates two imposing exhaust tailpipes, chromed and symmetrical, an indication of an exhaust line redesigned for performance and sound.

The red Peugeot lettering on the grille and its R badge, which can also be found at the rear, put the finishing touches to the exterior signature of the RCZ R.

### Personalisation and rich range of equipment

Available in 4 colours: Moroccan Red, Nera Black, Mercury Grey and Opal White, the RCZ R also offers a personalisation range consisting of the brilliant or satin black carbon roof, body stickers and black mirror shells.



The high level of safety and comfort equipment is supplemented on the RCZ R with xenon headlamps with headlamp washers and the PC Nav Plus multimedia system.

### **Instruments and controls which awaken the senses**

Opening the door reveals instruments and controls which reflect the exterior, dedicated to the pleasure and sensations of the driver, they instantly plunge the "pilot" into a subtly elitist sporty ambiance.

From the door sill bearing the Peugeot Sport logo, the sporty and exclusive character is reinforced. The red over stitching runs across the soft, enhanced material of the dashboard, as well as the leather on the steering wheel, the gear lever gaiter, the door trim pads, the armrests and the seats.

The latter, of a new sporty and sleek design, are trimmed with a mix of black full grain *Nappa* leather and Alcantara and bear the monogram "R".

Chromed and crimped with red, the character "R" appears to emerge from a plate with a brushed aluminium finish and 4 visible screws, which signs the centre console. Inspired by the world of aviation, it symbolises precision and elegantly bears the stamp of Peugeot Sport.

### **Intense driving sensations**

"Descending" into his vehicle, the driver discovers an ergonomic driving position, ideal for savouring the dynamic qualities of his RCZ R. The small steering wheel, the short gear lever, the special gear knob in aluminium highlighted with red and the new bucket seats developed by Peugeot Sport - with reinforced support and consistent with the level of performance of the RCZ R - actively contribute to the driving sensations.

Along with sight and touch, hearing is not forgotten!

The *Sound System* associated with a special intake line, as well as a redesigned exhaust line, allow you to enjoy the sporty character of the RCZ R's new engine as you accelerate and change gear.

### **Dynamic and sporty sensations**

*"The search for performance and effectiveness in 'race' conditions guided numerous choices during development, in particular the size and fine-tuning of the drive train, the suspension, the brakes and the tyres over and above the usual production criteria to allow the most expert drivers to spend time on the circuit."*

Pierre Budar, RCZ R Project Manager



The sporty temperament of the RCZ R is also demonstrated by the figures; maximum speed of 155 mph (250 km/h) (limited electronically), 0 - 60 mph (0-100 km/h) in 5.9 seconds, the 400 m standing start slashed to 14.2 seconds and the 1000 m to 25.4 seconds.

The in-gear acceleration is also of a very high level increasing from 50 to 75 mph (80 to 120km/h) in 6.8 seconds in top gear.

The staging of the 6-speed manual gearbox is specific, benefiting acceleration and in-gear acceleration.

The lowered centre of gravity, the improved aerodynamic sensitivity (drag / downforce), special suspension settings (tracks, toe-in and camber, wheels rims 0.5 inch wider) and Goodyear Eagle F1 Asymmetric 235 / 40 R19 tyres optimise the grip and guarantee remarkable road holding.

The suspension and wheels adopt new damper patterns, increased spring stiffnesses and anti-roll centring moved back, offering greater agility.

The Torsen limited slip differential makes full use of the high torque available from 1900 rpm benefiting traction, it offers the RCZ R good stability on braking and the ability to hold a tight trajectory inside bends.

The performance and agility of the RCZ R are also the result of fine-tuning meetings and circuit tests, in particular with the Peugeot Sport test drivers.

Their exacting standards regarding braking naturally directed the technical specification towards fixed 4-piston calipers, permitting a significant gain in stiffness and therefore travel of the pedal while favouring a reduction in the non-suspended weights.

The discs, of 380 mm diameter and 32 mm thickness, are fitted floating on an aluminium reservoir. This contributes to reducing the weight and to the cooling, as do the internal ventilations of the disc, the optimisation of which is the result of Alcon's experience in competition.

The whole provides the braking system with endurance to withstand any test and offers the RCZ R exceptional safety and performance, with in particular less than 61 m to brake from 80 to 0 mph (130 to 0 km/h).

### **Drive train designed for the circuit, with the durability of production**

*"To obtain 270 hp and 330 Nm from a production engine with a capacity of 1.6l and which can withstand sporty use on a circuit, new solutions had to be introduced, very top-of-the-range or taken from the world of competition. Peugeot Sport has all the expertise required to achieve this, the group's Research and Development teams contributed their experience and know-how to guarantee the durability and the industrial application."*

Thierry Chauvet, RCZ R Drive Train Development Manager



The RCZ R is equipped with a new 1.6 THP petrol direct injection turbo engine. It develops its maximum power of 199kW (270hp) at 6000 rpm and its maximum torque of 330 Nm from 1900 rpm and up to 5500 rpm.

This new 'EP6CDTR' engine benefits from extensive development, numerous parts have been modified or entirely redeveloped to obtain this performance and be capable of sporty use with the durability of a production engine.

The engine block itself is reinforced by means of a special heat treatment before machining to improve its durability.

The Twin Scroll turbo has been developed specifically to benefit from dimensions which are ideal for this application and this level of performance. Combined with a steel exhaust manifold of innovative structure inspired by racing, it permits the operating temperatures to be kept higher.

The new pistons, providing a compression ratio of 9.2, developed with MAHLE Motorsport, are of a forged structure and use a grade of aluminium used in Formula 1, and cooled by 2 jets.

The conn rods have also been modified to withstand use at high engine speeds. Their big end shells with polymer coating can withstand the highest cylinder pressures. Patented and presented in 2011 by MAHLE, they are applied in production as a world first on the RCZ R.

### **Comfort and pleasure every day**

The RCZ R has been developed as a competition version by Peugeot Sport for sporty use on a circuit, but it can also be pleasant and civilised for daily use on the road.

The calibrations of the power train in fact combine the requirements of sporty driving on a circuit and those of everyday use. Depending on the pressure on the accelerator pedal and engine speed, which reveal the style of driving adopted by the driver, its behaviour will be comfort - town or sport - effectiveness.

In addition, the level of torque obtained from very low engine speeds permits dynamic restarts and a very high level of everyday pleasure on the road.

The design of the suspension improves the agility and incisive character of the RCZ R with a compromise which retains a level of comfort close to that of the RCZ 1.6 THP 200 hp.

Finally, the upmarket materials and the ergonomics of the instruments and controls, its top-of-the-range equipment and limited consumption in normal use, 6.3 l per 60 miles (100km) in the mixed cycle - (a benchmark in the category) - also make the RCZ R a sports coupé which is comfortable and easy to live with off the circuit.



## Press contacts

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### **Peugeot**

Present in nearly 160 countries, with more than 10,000 points of contact, Peugeot combines rigorous design, appeal and passion in all its activities.

In 2012, the Marque achieved 1,700,000 sales worldwide, reinforced its position as the 4th marque in Europe, accelerated its internationalisation in the major growth markets and continued its range enhancement.

Peugeot is reaffirming its environmental commitment by introducing diesel micro-hybridisation and the powering of three HYbrid4 models using innovative full diesel hybrid technology.

Peugeot is the only marque to offer a complete mobility product range with cars and utility vehicles, scooters, bicycles and a wide range of services, including the Mu mobility service

		RCZ R 1,6 THP "270" BVM6 EP6CDTR/MCM
<b>GENERAL</b>	Capacity (cm <sup>3</sup> )	1 598
	Max. power in kW (or <b>bhp</b> ) / engine speed (rpm)	199 ( <b>270</b> ) / 6 000
	Max. torque (Nm)/engine speed (rpm)	330 / 1900 à 5500
	Gearbox	MCM reinforced - 6 manual
	Tyres	235 / 40 R19 Goodyear Eagle F1 Asymmetric 2
<b>PERFORMANCE (driver only )</b>	Maximum speed (kph)	250 (electronically limited)
	Acceleration (seconds)	
	• 1000 m standing start	25,4
	• 400 m standing start	14,2
	• 0 to 100 kph	5,9
In gear acceleration (seconds)		
• 80 to 120 kph in gear before top gear	5,7	
• 80 to 120 kph in top gear	6,8	
<b>FUEL CONSUMPTION</b>	ECE - urban (litres/100 km)	8,4
	EUDC - extra urban (litres/100 km)	5,1
	Combined fuel consumption (litres/100 km)	6,3
	CO <sub>2</sub> emissions (g/km)	145
	Fuel tank capacity (litres)	55
<b>DIMENSIONS (m)</b>	Overall length	4,294
	Body width including door handles / with door mirrors folded / open	1,845 / 1,958 / 2,107
	Ride height	1,352
	Wheelbase	2,612
	Front overhang / Rear overhang	0,934 / 0,748
	Front track / Rear track	1,580 / 1,595
<b>BOOT</b>	Total boot volume shelf VDA 210 standard in dm <sup>3</sup> / litres "of water"	321 à 639 / 384 à 760
<b>WEIGHT (kg)</b>	Kerb weight (full tanks)	1 280
<b>AERODYNAMICS</b>	SCx	0,694