

NSW, May 26, 2014

# RCZ R – THE MOST POWERFUL PRODUCTION CAR IN THE HISTORY OF THE PEUGEOT

### **HIGHLIGHTS**

- New 1.6 Turbo engine producing 199kW of power and 330Nm of torque
- 0-100km/h in just 5.9 seconds
- Sets a specific power record in the category; 124kW/L one of the highest in the world for a production vehicle
- Power to weight ratio of 155kW/tonne
- Euro 6.1 compliant results in extremely low consumption and emissions of just
   6.3L/100km and 145g/km CO<sub>2</sub> respectively a benchmark in the category of sports coupes
- Developed with Peugeot Sport
- New forged pistons made from Formula 1 grade steel first time in a production Peugeot
- MAHLE con-rods world first use in a production car
- Significant modifications in relation to all components compared with RCZ
- RCZ R benefits from Peugeot's 120-year motorsport history

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

"The RCZ R is not just a sporty version of the RCZ," says John Startari, General Manager, Sime Darby Motors Group Australia. "Developed with Peugeot Sport, the RCZ R has significant engineering modifications compared with the RCZ and was developed as a sports competition model for use on circuits and tracks."





"RCZ R is a perfect example of Peugeot's expertise in motorsport. RCZ R is a halo model for the brand and we expect it will increase sales as well as bring new customers to Peugeot."

#### **PERFORMANCE**

The 1.6-litre turbocharged engine is not the co-developed engine with BMW. It is an internal PSA development conducted jointly by experts from the teams of Peugeot Sport and the R & D Group and is specific to RCZ R.

The engine produces 199kW of power at 6000rpm and 330Nm of torque from 1900rpm up to 5500 rpm. In comparison, the RCZ is 147kW at 5500rpm and 275Nm at 1700rpm. This sees the RCZ R sprint to 100kmh in just 5.9 seconds, 1.6 seconds quicker than the RCZ. The RCZ R covers 400m from a standing start in 14.2 seconds and 1000m in 25.4 seconds.

With 199kW and a capacity of just 1.6L, the RCZ R sets a specific power record in the category; 124kW/L - one of the highest in the world for a production vehicle.

Acceleration from 80 to 120km/h in top gear takes just 6.8 seconds.

Given its miserly weight of 1280kg (tare), the RCZ R boasts a power to weight ratio of 155kW/tonne. Yet, despite this performance the RCZ R is Euro 6.1 compliant and uses just 6.3L/100km of fuel on the combined cycle while emitting just 145g/km CO2.

This result is obtained by mastering the downsizing of the engine, the optimisation of the aerodynamic properties and a reduction in weight.

#### **ENGINE**

Hand built by Peugeot at the Herimoncourt factory, the 1.6-litre turbocharged engine benefits from extensive development. Numerous parts have been modified or entirely redeveloped to obtain this performance and be capable of sporting use with the durability of a production engine.

Engine-specific modifications are as follows:

- The block has been reinforced by a specific heat treatment prior to machining to improve durability. New forged pistons with a compression ratio of 9.2:1 were developed by Mahle Motorsport and use a grade of aluminium found in Formula One. This is the first time they have been used in a production Peugeot.





- The Twin Scroll turbo has been developed to benefit from dimensions ideal for this application and this level of performance. The new steel exhaust manifold with race inspired architecture permits the operating temperatures to be kept higher.
- The con rods have been engineered to withstand continued use at high engine speeds and the upgraded bearings making their world debut on a road car are covered with a polymer coating that can withstand higher cylinder pressures.
- The exhaust has also been modified; linked to the draw of the engine's air intake, it features an enhanced 'sound system' to amplify the sporting character of the new RCZ R's engine.

#### **GEARBOX**

The six-speed manual gearbox has been reinforced for use in sports to accept the maximum torque of 330Nm. The gear ratios have been designed specifically to maximize the 0 -100km/h sprint and provide the best available mid-range acceleration times.

The gears and main shaft are reinforced with special treatment. The drive pinion gears have deep carbon-nitriding case hardening, while the primary shaft has been treated with double shot peening and fitted with reinforced bearings. The RCZ R features a dual mass flywheel and specific clutch.

#### **CHASSIS**

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

A new spoiler increases rear down force by 15 daN.m, offering more stability at high speed without reducing the drag.

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

The suspension has new damper patterns, increased spring stiffness and the anti-roll bar centering has been moved back for greater agility. Toe-in and camber settings have also been adjusted. The front suspension is stiffer by 14% and the rear suspension stiffness has been increased by 44%.





The shock absorbers feature multivalve technology that was developed and manufactured internally at the Sochaux production plant.

The electronic stability program can be fully disconnected and has been recalibrated for RCZ R. This specific ESP calibration with thresholds for speed allows wheel spin on takeoff and acceleration to fully utilize the limited slip differential.

Compared to RCZ, the RCZ R has a lower centre of gravity with 10mm reduction in road height. The exterior footprint of the wheels are further apart by 18mm in front and 12mm at the rear compared to the RCZ which has been achieved at the front by an increase in alloy wheel width of 12mm and an increase in the wheel offset by 3mm.

At the rear, with the same alloy wheels, there has been a 3mm reduction to the spacer positioned between the rear hub and the alloy wheel. As a result the front track has increased by 6mm while at the rear it remains the same as the RCZ.

# **BRAKES, WHEELS AND TYRES**

Stopping power consists of fixed 4-piston calipers on the front which provide overall gains in brake pedal feel and a reduction in the un-sprung weight resulting in improved dynamic performance. The red front calipers feature Peugeot Sport branding.

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

The discs are slotted to improve their internal ventilation and have been developed from the experience of specialist brake manufacturer Alcon.

The modification to the braking system offers the RCZ R exceptional safety and performance. This sees the RCZ R decelerate from 130-0km/h in less than 61m.

The RCZ R's 19-inch two-tone diamond/matt black wheels were designed to optimise the cooling of the new larger brakes. They are shod with Goodyear Eagle F1 Asymmetric 235/40 R19 tyres.

# **INTERIOR STYLING**

The interior of the RCZ R features race-inspired red highlights to distinguish it from the RCZ. The front bucket seats are designed for the track. In the rear, the seats feature specific leather/Alcantara rear seats with red stitching and "R" badge in the backrest.





A brushed aluminium plate and four screws with red « R » monogram and Peugeot Sport signature is located in the centre console and two aluminium inserts at the junction of the dashboard and the U of the gear lever.

The aluminium door sills have an « R » monogram and Peugeot Sport signature and there is a 208 GTi-style aluminum gear knob with red collars.

There is red stitching on the dashboard, gear lever cover, sports steering wheel, central armrest as well as the door armrest.





As a further reference to the heritage of sports coupes, the design of the instrument panel dials incorporates a carbon and brushed metal background with white needles. Echoing the carbon and metal styling, is an analogue clock installed in the centre of the fascia along with a pop up satellite navigation unit.

As well, there is a surprisingly generous boot with an impressive 384 litres of space capable of fitting two suitcases. The rear seats will fold back as a single unit, producing a flat floor area of 1004mm x 1020mm which also increases the cargo space to 760 litres.

#### **EXTERIOR STYLING**

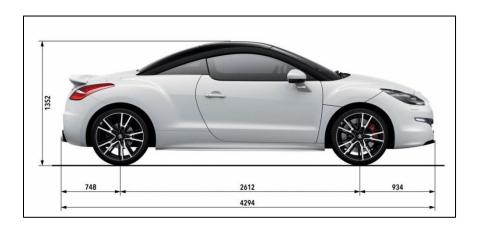
The RCZ R has the same front end styling as the RCZ with a few key design differentiators. These include the two front grille bars in satin chrome, Peugeot lettering in red on the front grille and the monogram "R" on the front grille.

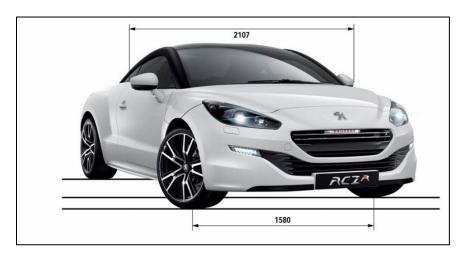
At the rear, a special rear diffuser with symmetric dual exhaust outlets showcases the reworked exhaust system for performance and exhaust note. The large fixed rear spoiler and monogram "R" on the boot finish the package.





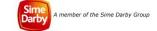
# **DIMENSIONS**







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# **COLOURS**

RCZ R comes in four colours: Moroccan Red, Mercury Grey, Opal White and Perla Nera Black.



#### **PRICING**

The RCZ R is priced from \$68,990\*

Options: Metallic Paint \$800

The RCZ R is covered by Peugeot's five-year capped priced service plan as well as a 3-year/100,000km warranty and 3-year roadside assist.

\*Prices quoted are the Manufacturer's List Prices (MLP), inclusive of Luxury Car Tax (LCT) at the rate of 33%, and excluding dealer delivery charges. LCT is payable on all vehicles with a total purchase price, including the price of factory & dealer fitted optional extras & dealer delivery charges, above \$57,466. This is a manufacturer's list and new vehicles must be purchased from dealers. Specifications and pricing are as planned for Model Year 2014 and subject to change without notice or obligation.

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