





# APRILIA PERFORMANCE RIDE CONTROL®

RSV4 FACTORY APRC AND RSV R APRC IS ONE GENERATION AHEAD OF EVERYONE ELSE, ON THE TRACK AND ON THE ROAD, THANKS TO ITS NEW, EXCLUSIVE PERFORMANCE RIDE CONTROL PACKAGE INTEGRATED WITH RIDE-BY-WIRE, DERIVED FROM THE INCREDIBLE SUCCESS IN THE WORLD SBK CHAMPIONSHIP. A RELIABLE, CUSTOMISABLE ASSISTANT TO HELP YOU CONTROL POWER OUTPUT AND TRACTION OF THE BIKE, SETTING NEW BENCHMARKS IN PERFORMANCE AND RACING RESULTS. AN UNPRECEDENTED RIDING EXPERIENCE.

The APRC system incorporates four different features:

# **ATC** (Aprilia Traction Control)

Helps improve grip thanks to a patented "slip control", system, fine tuning power delivery according to bank angle. Smooth modulation gives the rider a better feeling for driving wheel. Rider can choose among 8 settings, even while riding and without closing the throttle, using a dedicated joystick. The system includes an automatic setup procedure to record and adjust to wheel diameters – a unique feature in the industry – so as to ensure accurate response regardless of tyre and brand.

# **AWC** (Aprilia Wheelie Contro

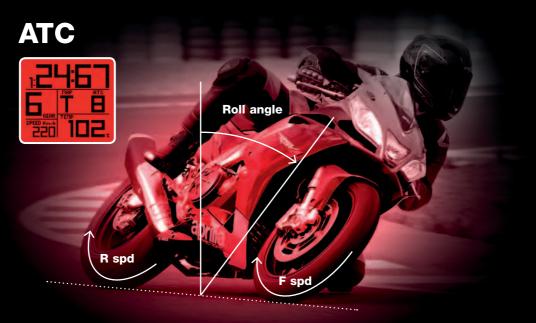
Optimal acceleration control is achieved by a patented "wheelie detection" control system that gently places the wheel back down onto the road. The system has three settings that can be selected at standstill independently of the other systems.

# **ALC** (Aprilia Launch Control)

It provides optimal power delivery when setting off from a standing start, working hand in hand with the wheelie control system to maximise start-off acceleration. It has three settings that can be selected at standstill from the instrument panel menu, and then must be "armed" at the time of using it.

# **AQS** (Aprilia Quick Shift

This quick shift system enables upshifts without using the clutch or closing the throttle, with limited loss of RPM for faster lap times. There are 3 system kick-in calibrations according to three different engine rpm thresholds.



aximum traction in bends



Total control under acceleration



Lightning-fast starts

# **AQS**

Gear change measured in millisecond





## TOTAL CONTRO

The AWC and ALC systems are set up from the instrument panel menu, using the "mode" button on the left of the handlebar. The ATC system can be set to one of the 8 available settings at any time, with the throttle open, from a user-friendly joystick to the left of the handlebar.







RACE

The instrument panel digital display offers two different screens that hold the most significant information for road and track use, respectively:

**ROAD** shows speed on the foreground, plus such additional indications as engine mapping and ATC setting, shift position, trip counter, temperature and clock. **RACE** highlights lap timer, shift position, engine mapping and ATC setting, plus smaller speed and temperature indications.



THE IRRESISTIBLE CHARM OF THE RSV4 COMES FROM THE FACT THAT IT WAS DESIGNED WITHOUT YIELDING ANYTHING TO AESTHETICS: SINCE IT WAS CONCEIVED FOR THE RACING WORLD, WHERE EACH MILLIMETRE, EACH GRAM, EACH THOUSANDTH OF A SECOND COUNTS. SUCH A COMPACT AND EFFICIENT BIKE WAS NEVER SEEN BEFORE: THIS IS WHY IT IS SO BEAUTIFUL.



The frame and the engine are an integral part of the bike's design, together with the few other strongly characterising elements designed with a focus on the track, modelled in the wind tunnel. The search for the best aeration of the engine and higher levels of aerodynamic penetration, led to the creation of an innovative front end, with large air vents for the airbox, headlights that mark the border of the top fairing and turn indicators integrated in the rear-view mirrors. Even the spectacular tail fairing, with headlight consisting of a high-luminosity LED unit, was conceived with the aim to reduce the surfaces as much as possible in order to increase aerodynamic efficiency.



Perfectly integrated in the bike's design, this element is standard and can easily be removed to gain lightness during the use on the

A new design to improve vehicle performance. These wheels reduce the inertia of the rolling masses, the rider to lean into curves faster.



In addition to making the engine sound even more unique, it is designed to reduce the overall weight of 2.00 kg and offers increased clearance from the greatly benefiting handling, allowing ground for better handling and performance. The advanced exhaust butterfly valve management system improved delivery in low rpm and reduces emissions.



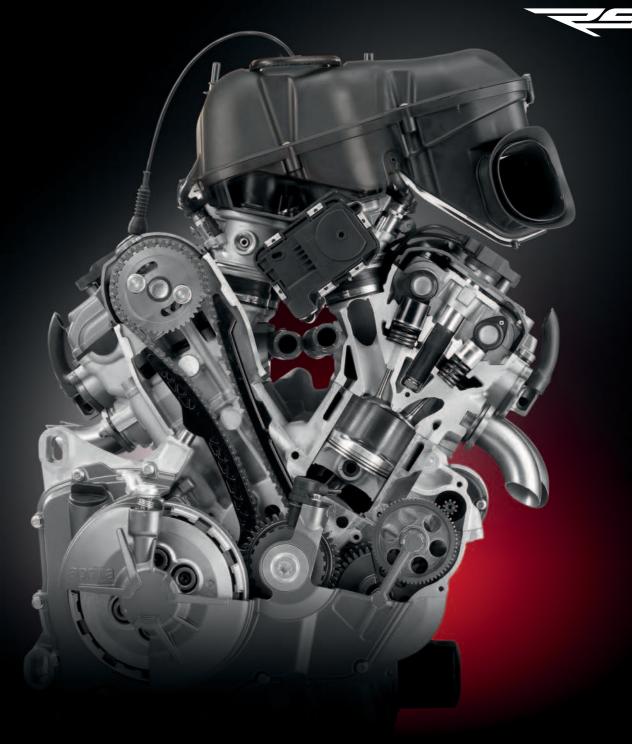
# RSV4 RAPRC

PUSHING THE LIMITS OF EXCITEMENT AND PERFORMANCE, LAP AFTER LAP. FEELING THE ADRENALINE OF SPEED GOING THROUGH YOUR VEINS, EACH TIME YOU ARE ON THE SADDLE. BEING FIRST IN TECHNOLOGY. RSV4 R WAS BORN FROM THE DESIRE TO OFFER THE DESIGN AND PERFORMANCE SUPREMACY OF MAX BIAGGI'S BIKE TO THE LARGE PUBLIC OF ENTHUSIASTS, WITHOUT THE NEED OF A SPECIALISED TECHNICAL TEAM. A BIKE THAT LEAVES OPPONENTS IN THE DUST: THE ONLY SUPERBIKE WITH STANDARD V4 ENGINE, THE VERY FIRST IN THE HANDLING, TECHNICAL REFINEMENT AND DESIGN CLASSIFICATION.

# **OPTIMISED ENGIN**

Aprilia's engineering team has improved lubrication at critical points, cylinder-piston fits and cylinder head cooling.





# PERFORMANCE

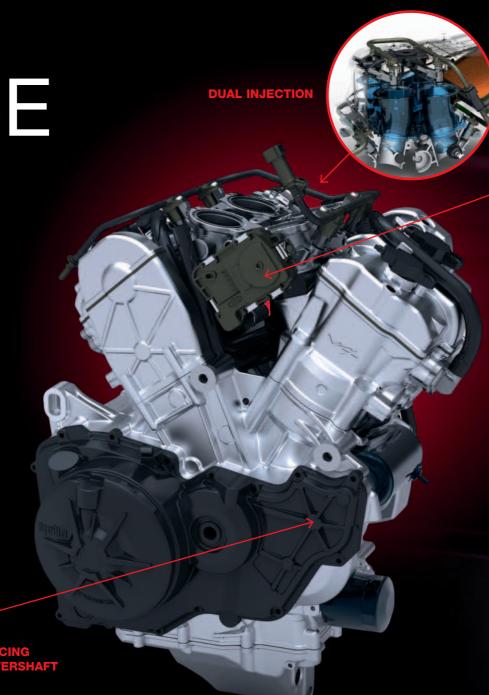
RSV4 R REVOLUTION STARTS FROM THE HEART OF THE BIKE, IT IS FELT FROM THE OVERWHELMING ROAR OF THE 65° 4-CYLINDER ENGINE, AND IT IS EVIDENT IN THE FANTASTIC PERFORMANCE ON THE RACE CIRCUIT. THE 65° V 4-CYLINDER ENGINE IS INDEED THE MOST REVOLUTIONARY AND, AT THE SAME TIME, THE MOST POWERFUL EVER BUILT BY APRILIA.



Its "narrow" V architecture enabled the creation of an engine as compact as a twin-cylinder, perfectly integrated in the chassis, and at the same time, with an extreme cylinder bore, improving performance in terms of power and torque. Vibrations mitigated by a balancing countershaft.



BALANCING COUNTERSHAP



# DUAL INJECTIO

Advanced solutions also with regards to fuel system. Two injectors per cylinder:

- one after the throttle valve for excellent speed tractability
- the other fan pattern injector in the airbox, which comes into play at higher loads and engine speeds, for more effective fuel atomisation and vaporisation and increased power output. To ensure the right torque and the ideal power delivery in all situations.

## **IDVANCED ELECTRONICS**

In the V4 65°, the most refined motor engineering is combined with the most advanced electronics. The Multimap Ride-by-Wire technology offers endless possibilities in controlling the power delivery, with the ability to change "character" of the bike, selecting one of the three mapping available on the handlebar:

- T TRACK No compromise on the track. 180HP of power when even slightly opening the throttle.
- S SPORT Fun on the road. Smooth, electronically-controlled delivery.
- ROAD Use in any condition. Power reduced to 140HP.

# CASSETTE TYPE GEARBOX WITH NEW GEAR RATIOS AND SLIPPER CLUTCH

The cassette type gearbox is a typical racing solution for optimal engine management on any track, thanks to rapid and easy gear ratio replacement and short gearbox maintenance times. The three lowest gears are spaced closer for extra speed in a straight. The clutch equipped with mechanical slipper system improves control over the engine brake and the bike's stability during any hard braking phase.

# HANDLING

RSV4 HAS A DYNAMIC BEHAVIOUR THAT RULES THE TRACK, BECAUSE IT IS CONCEIVED FROM THE SAME DESIGN THAT BROUGHT APRILIA TO BE NUMBER ONE IN THE SBK CHAMPIONSHIP. ITS SPEED IN CHANGES OF DIRECTION IS DUE TO THE EXCEPTIONAL COMPACTNESS, TO THE OUTSTANDING FRAME AND CHASSIS, WITH RACING TECHNICAL SOLUTIONS, AND DUE TO THE IDEAL POSITIONING OF THE V4 ENGINE.



# **ABSOLUTE BALANCE**

The chassis was designed around the 65° V4 engine, to attain the perfect centralisation of the masses. A result optimised by the position of the tank, with fuel mostly underneath the saddle, to reduce the balance differences between full and empty.

# **ALUMINIUM CHASSIS**

The frame is a master piece of technology, exposed, made with cast and pressed elements, according to Aprilia's tradition. It boasts a high level of torsional and bending rigidity, for a perfect control and feeling, when entering and riding along a turn. Even the swingarm, born from Aprilia's experience in competitions, is a rigid and ultra-light "mix" of cast and pressed aluminium elements, which allows for extreme responsiveness when setting the suspension.

### RACING SUSPENSION

Fully adjustable suspension that can be adapted to any type of path, whether on track or road. 43 mm front fork and Sachs progressive monoshock absorber.





# RSV4 FACTORY APRC

fibre, are already standard in RSV 4 Factory.

RSV4 FACTORY APRC IS THE WINNING "SBK REPLICA" THAT USES COMPONENTS, MATERIALS AND SOLUTIONS STRAIGHT FROM THE RACING WORLD. THE INCREDIBLE PERFORMANCE OF THE OPTIMISED V4 65° ENGINE IS ENHANCED BY THE TECHNOLOGICAL AIR INTAKE SYSTEM, CASSETTE TYPE GEARBOX AND ULTRA-LIGHT MATERIALS SUCH AS TITANIUM, MAGNESIUM AND CARBON. THIS OFFERS UNENDING POSSIBILITIES OF SETUP AND ADJUSTMENT, INCLUDING ENGINE HEIGHT, TO THE POINT OF NEAR-OBSESSION.

# "RACE READY" ENGINE

Intake system with ducts at variable height based on the engine speed, which optimises the level of torque requested at every moment and at every speed. Ultra-light materials, such as titanium and magnesium, reducing the overall weight.



HICH DUCTE

LOW BUG

# ULTRA-LIGHT WHEEL RIMS Wheel rims in forged aluminium: its lightness reduces the inertia of the rolling masses, improving the responsiveness of the bike to each command of the rider. COMPONENTS IN CARBON Extreme lightness and prestige of the race components, made in carbon



# **EXCLUSIVE REAR TYRE**

A tyre you will not find on any other stock bike! Born from the race expertise of the Aprilia race division, the innovative racing sized dual blend 200/55 ZR17 tyre offers a better contact pattern in bends, saving precious tenths of a second of lap time lap after lap.

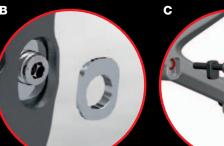


# THE ONLY STANDARD BIKE THAT IS CUSTOM-MADE FOR YOU

RSV4 FACTORY IS THE FIRST STANDARD FOUR CYLINDER BIKE THAT IS TRULY "RACE READY". THANKS TO A REVOLUTIONARY DESIGN PHILOSOPHY, TO THE COMPONENTS, TO THE MOST ADVANCED RACING TECHNOLOGY AVAILABLE TODAY AND TO THE ENDLESS POSSIBILITIES OF ADJUSTMENT: TO ADAPT ITSELF LIKE A GLOVE TO EACH RACING STYLE AND TYPE OF TRACK.



For the first time on a standard bike, in addition to fully adjustable suspension, the rake and position of the headstock can also be adjusted, as well as the height of the rear end, of the swingarm pin and also the engine position. No other bike on the market allows such a high level of personalisation, so easily... nor will any other bike likely be able to offer you this in the near future. With Aprilia RSV4 Factory, you are in poll position as soon as you enter the track.





# « RACING » ADJUSTMENTS

- A. Rake and position of the headstock position
- B. The height of the rear end and of the swingarm pin
- C. Engine position



UPGRADE YOUR RSV4 R WITH THE RACING COMPONENTS OF THE RSV4 FACTORY: FROM THE FORK TO THE ÖHLINS SHOCK ABSORBERS, FROM THE CARBON COMPONENTS TO THE FORGED WHEEL RIMS. OR CUSTOMISE BOTH MODELS WITH THE ORIGINAL ACCESSORIES DESIGNED BY APRILIA, BASED ON ITS EXPERIENCE ON THE TRACK. FROM THE BILLET ALUMINIUM PARTS, TO THE AKRAPOVIC RACING EXHAUST. SETS NEW BENCHMARKS IN TECHNOLOGY, PERFORMANCE AND AESTHETICS: YOUR RSV4 WILL BE EVEN MORE EXTRAORDINARY.



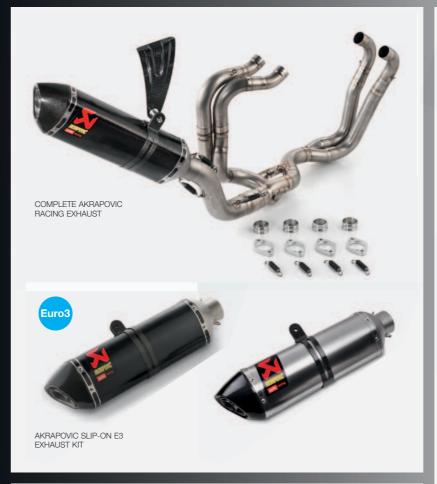


Made entirely in titanium with carbon terminal, the Akrapovic racing exhaust weighs less than 5 Kg and, with guaranteed higher torque and power, improves the acceleration out of turns. The thermoformed high windshield increases the aerodynamic penetration and protection from turbulence due to high speeds. Öhlins TTX shock-absorber is completely adjustable with connection points machined from the billet. The aluminium footrests, also completely machined from the billet, can be adjusted through 9 different positions and enable the micrometric calibration of the gear shift and brake commands.

With Aprilia accessories, you can express your passion for every single detail. Components in carbon fibre, to make the bike lighter and enhance its prestige. License plate holder, semi-handlebars and other billet elements. Protection pads with an original triangular shape, to protect the fairing and give it a more aggressive look. Service stand and breathable bike cover personalised for the RSV 4 model, to add special functionality and style.

Aprilia has also thought of your performance and safety when riding. RSV4 flip up helmet in composite fibre, weighs less than 1,300 grams and it has been developed in collaboration with professional riders.

Go discover the entire range of Aprilia accessories on the website www.rsy4aprilia.com







SEMI-HANDLEBARS

FOR TRACK USE









Aprilia longitudinal 65° V-4 cylinder 4-strokes, liquid cooling system

Traction management

APRC System (Aprilia Performance Ride Control), which includes Traction







Engine type	double overhead camshafts (DOHC), four valves per cylinder  APAC System (Aprilla Performance Ride Control), which control (ATC), Wheelie Control (AWC), Launch Control (AWC), Launch Control (ATC), wheelie Control (ATC), wheelie Control (AWC), Launch Control (ATC), wheelie Control (AWC), Launch Control (ATC), wheelie Control (AWC), Launch Control (ATC), wheelie		Control (ATC), Wheelie Control (AWC), Launch Control (ALC),
Fuel	Fuel Unleaded petrol		all of which can be configured and deactivated independently.
Bore and stroke	78 x 52.3 mm	Frame	Aluminium dual beam chassis with pressed and cast sheet elements.
Total engine capacity	999.6 cc		Sachs steering damper
Compression ratio	13:1	Front suspension	Sachs upside down front fork with Ø 43 mm stanchions. Low profile forged alu-
Max. power at crankshaft	180 CV (132.4 kW) at 12,500 rpm		minium calliper mountings for radial callipers. Completely adjustable spring pre-
Max. torque at crankshaft	115 Nm at 10,000 rpm		load and hydraulic rebound and compression damping. Wheel travel: 120 mm
Power system	Airbox with front dynamic air intakes. 4 Weber-Marelli 48-mm throttle bodies with 8 injectors and latest generation Ride-by-Wire engine management.  Choice of three different engine maps selectable by the rider with bike in motion: T (Track), S (Sport), R (Road)	Rear suspension	Double braced aluminium swingarm; mixed low thickness and sheet casting technology.  Sachs piggy back monoshock with completely adjustable: spring preload, wheelbase, hydraulic compression and rebound damping.
Ignition	Magneti Marelli digital electronic ignition system integrated in engine control		APS progressive linkage. Wheel travel: 130 mm
	system, with one spark plug per cylinder and "stick-coil"-type coils	Brakes	Front: Dual 320-mm diameter floating stainless steel disc with lightweight
Starter	Electric		stainless steel rotor and aluminium flange with 6 pins. Brembo monobloc radial
Exhaust system	4 into 2 into 1 layout, single oxygen sensor, lateral single silencer with engine control unit-controlled butterfly valve and integrated trivalent catalytic converter (Euro 3)		callipers with 4 horizontally opposed 34 mm Ø pistons. Sintered pads.  Radial pump and metal braided brake hose.  Rear: 220 mm diameter disc; Brembo calliper with two 32 mm Ø separate
Alternator	Flywheel mounted 420W alternator with rare earth magnets		pistons. Sintered pads. Pump with integrated tank and metal braided hose
Lubrication	Wet sump lubrication system with oil/air radiator, double oil pump (lubrication and cooling)	Wheel rims	Front: Aluminium alloy with 3 split spokes, 3.5"X17" Rear: Aluminium alloy with 3 split spokes, 6"X17"
Transmission	6-speed cassette type gearbox: 1st: 38/16 (2.375), 2nd: 35/18 (1.944), 3rd: 28/17 (1.647) 4th: 32/22 (1.455), 5th: 34/26 (1.308), 6th: 33/27 (1,222) Gear lever with Aprilia Quick Shift electronic system (AQS)	Tyres	Radial tubeless. Front: 120/70 ZR 17 Rear: 190/55 ZR 17 (alternatively: 200/55 ZR 17; 190/50 ZR 17)
Clutch	Multiplate wet clutch with mechanical slipper system	Dimensions	Max. length: 2,040 mm. Max width: 735 mm (at the handlebar).
Primary drive	Straight cut gears and integrated flexible coupling, drive ratio: 73/44 (1,659)		Max. height: 1,120 mm. Min. ground height: 130 mm. Saddle height: 845 mm. Wheelbase: 1,420 mm. Trail: 105 mm. Steering angle: 24.5°
Secondary drive	Chain:	Kerb weight	184 kg (Declared dry weight, without battery and fluids)
	Drive ratio: 42/16 (2.625)	Tank	17 litres (4-litre reserve included)

Engine type	Aprilia longitudinal 65° V-4 cylinder, 4-strokes, liquid cooling system, double overhead camshafts (DOHC), four valves per cylinder
Fuel	Fuel Unleaded petrol
Bore and stroke	78 x 52.3 mm
Total engine capacity	999.6 cc
Compression ratio	13:1
Max. power at crankshaft	180 CV (132.4 kW) at 12,500 rpm
Max. torque at crankshaft	115Nm (11.7kgm) at 10,000 rpm
Power system	Airbox with front dynamic air intakes. Variable length intake ducts controlled via ECU. 4 Weber-Marelli 48-mm throttle bodies with 8 injectors and latest generation Ride-by-Wire engine management. Multiple engine maps selectable by the rider with bike in motion: T (Track), S (Sport), R (Road)
Ignition	Magneti Marelli digital electronic ignition system integrated in engine control system, with one spark plug per cylinder and "stick-coil"-type coils
Starter	Electric
xhaust system	4 into 2 into 1 layout, single oxygen sensor, lateral single silencer with engine control unit-controlled butterfly valve and integrated trivalent catalytic converter (Euro 3)
lternator	Flywheel mounted 420W alternator with rare earth magnets
ubrication	Wet sump lubrication system with oil/air radiator, double oil pump (lubrication and cooling)
<b>Transmission</b>	6-speed cassette type gearbox: 1st: 38/16 (2.375), 2nd: 35/18 (1.944), 3rd: 28/17 (1.647) 4th: 32/22 (1.455), 5th: 34/26 (1.308), 6th: 33/27 (1,222) Gear lever with Aprilia Quick Shift electronic system (AQS)
Clutch	Multiplate wet clutch with mechanical slipper system
Primary drive	Straight cut gears and integrated flexible coupling, drive ratio: 73/44 (1,659)
Secondary drive	Chain: Drive ratio: 42/16 (2.625)

Traction management	APRC System (Aprilia Performance Ride Control), which includes Traction Control (ATC), Wheelie Control (AWC), Launch Control (ALC), all of which can be configured and deactivated independently.
Frame	Aluminium dual beam adjustable chassis with pressed and cast sheet elements. Adjustments foreseen: position and angle of the headstock, engine height, swingarm pivot height. Adjustable Öhlins steering damper.
Front suspension	Öhlins Racing upside-down fork, 43-mm Ø stanchions (with Tin surface treatment). Low profile forged aluminium radial calliper mountings. Completely adjustable spring preload and hydraulic rebound and compression damping. Wheel travel 120 mm
Rear suspension	Double braced aluminium swingarm; mixed low thickness and sheet casting technology. Öhlins Racing monoshock with piggyback completely adjustable in: spring preload, wheelbase and hydraulic compression and rebound damping. APS progressive linkage. Wheel travel 130 mm
Brakes	Front: Dual 320 mm Ø floating stainless steel discs with lightweight stainless steel rotor and aluminium flange with 6 pins. Brembo monobloc radial callipers with 4 horizontally opposed 34 mm Ø pistons. Sintered pads.  Radial pump master cylinder and metal braided brake hose.  Rear: 220 mm Ø disc; Brembo floating caliper with two 32-mm Ø isolated pistons. Sintered pads. Pump with integrated tank and metal braided hose
Wheel rims	Aprilia forged and fully machined in aluminium alloy, with 5 split spoke design. Front: 3.5" X 17", Post: 6" X 17"
Tyres	Radial tubeless. Front: 120/70 ZR 17, Rear: 200/55 ZR 17 (alternatively 190/50 ZR 17; 190/55 ZR 17)
Dimensions (default settings)	Max. length: 2,040 mm. Max width: 735 mm (at the handlebar).  Max. height: 1,120 mm. Min. ground height: 130 mm. Saddle height: 845 mm.  Wheelbase: 1,420 mm. Trail: 105 mm. Steering angle: 24.5°
Kerb weight	179 kg (Declared dry weight, without battery and fluids)

17 litres (4 litre reserve included)

Your nearest dealer:



RSV4 FACTORY APRC and RSV4 R APRC are environmentally friendly vehicle compliant with Euro 3 regulations for exhaust and noise emissions.



The riders in the photographs are professionals and the images of the bikes were taken on a track closed to traffic, with the bikes not equipped with rear-view mirrors, turn indicators and license plate holder, which are supplied as standard and compulsory for road circulation.

Drive safely always wearing a helmet and protective clothing. Observe the laws of the road and respect the environment. Carefully read the owners' handbook. Photographs, technical data, specifications and colours shown in this brochure refer to the Italian market version and may be subject to change without prior notice. Ask your official Aprilla dealers for full details. In order to maintain your machine in a safe and efficient manner, always demand official Aprilia Spare Parts, which are guaranteed by Aprilia Quality Service in respect of current legislation. E & O E. Aprilia offers Aprilia Road Assistance, a call centre available 24 hours a day for information and road rescue. E. & O.E. Aprilia reserves the right to change colour/ specification without prior notice.



Tank





