

BMW

U.S. Press Information

For Release: Immediate

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The new 2023 BMW M 1000 RR

- Updated to the very first motorcycle from BMW M Motorsports.
- Increased downforce and improved top speed in one package.
- MSRP of \$32,995 plus \$695 Destination
- Expected U.S. market arrival – January 2023

Woodcliff Lake, NJ – October 11, 2022...BMW Motorrad USA is proud to announce the updated 2023 BMW M 1000 RR, developed to set a new milestone in the field of superbikes homologated for racing. Two colors will be available: The M RR in Light White non-metallic and the M RR M Competition in Blackstorm Metallic.

"We have achieved an engineering masterpiece in the aerodynamic development of the M RR due to our unwavering ambition, total passion and technical finesse. Thanks to countless hours in the wind tunnel as well as in road tests, we were able to considerably increase the top speed with unchanged engine output and at the same time significantly increase the downforce, also when banking in corners. Our development work will be rewarded with racing success." **Christian Gonschor, Project Management M 1000 RR**

The highlights of the new BMW M RR and M RR M Competition.

- M RR 999 cc 4-cylinder engine developed for racing purposes.
- Output 205 hp at 13,000 rpm and 83 lb-ft. at 11,000 rpm.
- 2-Ring forged pistons
- Fully CNC machined intake ports and BMW ShiftCam technology to vary valve timing and lift.

- Titanium valves, optimized camshafts and light, narrow rocker arms.
- Light, compact engine with longer and lighter (85-grams / 3-ounces less) Pankl titanium connecting rods for reduced friction and weight compared to the S RR.
- Anti-hopping clutch without self-boosting optimized for race starts.
- Improved intake system with shorter intake funnels, compared to the S 1000 RR, for improved flow at high engine speeds.
- Lightweight exhaust system with titanium manifold, front and rear silencers.
- NEW: Improved aerodynamics with more downforce even at lean angles while still slightly improving top speed.
- NEW: New fairing in visible carbon fiber with new carbon fiber front fairing carrier and new carbon fiber M Winglets.
- NEW: New visible carbon fiber front fender with integrated brake cooling ducts.
- NEW: M Aero Wheel Covers made from visible carbon fiber.
- NEW: M Carbon wheels with new finish and M Design graphics.
- NEW: Forged wheels available as an alternative to the carbon fiber wheels.
- NEW: Newly designed rear section.
- NEW: Ergonomic M Endurance seat.
- NEW: Short license plate bracket.
- NEW: Modified wiring harness with LWS connector for easier removal of license plate bracket and lights.
- Riding modes "Rain", "Road", "Dynamic", "Race" and "Race Pro1- 3" as well as the latest generation of Dynamic Traction Control DTC and DTC wheelie function with 6-axis sensor box.
- Two adjustable throttle characteristics available now for optimum response. "Engine Brake" with triple adjustability of engine drag torque in "Race Pro" mode.
- Shift Assistant Pro for fast upshifts and downshifts without using the clutch. The shifting pattern can be easily reversed for track use.
- Launch Control for improved race starts and Pit Lane Limiter for keeping precise pit lane speed.
- Hill Start Control Pro for comfortably starting off on inclines.
- M Brakes: Maximum braking performance on the track.
- Instrument cluster with large, readable 6.5-inch TFT display, start-up animation with M logo and OBD interface for M GPS Datalogger and M GPS Laptrigger.
- Lightweight M battery, rear USB charging socket, powerful LED light units, electronic cruise control and heated grips.

- M Competition Package with M GPS Laptrigger and activation code, M milled parts package, M Carbon package, natural anodized swing arm (220 gram / 7.0 ounces lighter than the stock variant), DLC-coated M Endurance chain and pillion package including hump cover.
- Extensive range of optional accessories and special equipment.

Engine and chassis.

The new M RR uses the familiar water-cooled inline 999 cc 4-cylinder engine designed for racing purposes and in particular for the Superbike World Championship. Power delivery remains at 205 hp at 13,000 rpm and 83 lb-ft. of torque at 11,000 rpm. The maximum engine speed of the M RR is 15,100 rpm. As before, the chassis of the new M RR relies on the aluminum bridge frame as its centerpiece, supplemented by an upside-down fork and central suspension strut with Full Floater Pro kinematics. The primary goal when designing the chassis and suspension was to achieve the best possible lap times on the track. That's why the chassis of the M RR is uncompromisingly designed for the track but is nevertheless also ideal for everyday riding on the street.

Improved aerodynamics increase both top speed and downforce.

The increased potential of the new M RR results above all from advancements in the area of aerodynamics. Never before has BMW Motorrad invested more development work in a fairing through simulation, optimization in the wind tunnel and testing on the track. The expertise of the BMW in-house motorsport department provided significant support in the design process.

For example, a newly designed fairing made of visible carbon with a higher windscreen provides an increase in top speed in conjunction with optimized airflow around the rider. Another positive effect of the new fairing is the now integrated protection of the M engine covers. For the first time, this fairing uses a light, yet rigid, fairing front beam made of carbon fiber. Improved accessibility to the cable connections on the front indicator lights ensures even faster removal to make the M RR "ready for track use."

With the new M RR, BMW Motorrad achieved a masterpiece of engineering in terms of aerodynamics. The seemingly mutually exclusive goals of "increasing top speed" and

"increasing downforce" were both achieved in the M RR through careful development of all aerodynamically relevant components while also benefiting the rider with noticeable physical relief due to the greatly improved airflow.



In the course of this aerodynamic development, the M Winglets were completely revised. In addition to achieving the highest possible maximum speed, which is essential for winning races, another goal is to achieve the best possible contact between the tires and the road surface - especially when accelerating and cornering.

Wheelies are absolutely undesirable from a riding dynamics point of view, as the drive force in a wheelie is not converted 100 percent into forward momentum but is wasted on raising the front end. Accordingly, the traction control kicks in to stop the wheelie and thus reduces the driving force. Valuable tenths of a second are lost here.

The M Winglets on the front fairing of the new M RR now produce significantly more aerodynamic downforce than before - both when riding upright and when leaning in corners. The tendency to wheelie is reduced and thus the need for traction control to kick in is reduced. The rider can have greater confidence in front wheel grip for achieving more extreme lean angles or higher cornering speeds at the same lean angle. At the same time, the rider benefits from a slight increase in top speed.

Speed	Current downforce	Increase	2023+ M RR downforce
95 mph	9.1 lbs.	+3.5 lbs.	12.6 lbs.
125 mph	15.8 lbs.	+6.2 lbs.	22.0 lbs.
155 mph	25.2 lbs.	+9.2 lbs.	34.4 lbs.
186 mph	36.0 lbs.	+13.8 lbs.	49.8 lbs.

Another central point in optimizing the entire aerodynamics package was around the area of the front wheel. Here, for the first time in the history of BMW Motorrad, brake cooling air ducts, made of visible carbon fiber, are used. They are integrated into the new front mudguards which have been optimized for improved airflow around the fork legs and brake calipers and in reducing the temperature of the M brakes by up to 50 degrees Fahrenheit in track operation, helping them to achieve even higher performance and a more constant pressure point. The M Aero Wheel Covers, also made of visible carbon fiber, lower drag further - especially at speeds above 155 mph. The M Aero Wheel Covers are included in the M 1000 RR M Competition package.



M Carbon wheels

Carbon fiber - once developed for the aerospace industry, this high-strength and super-light material first established itself in racing and now also in BMW motorcycles. BMW

Motorrad uses it wherever minimum weight and maximum rigidity are required. The M Carbon wheels of the new M RR are an ideal area of application for this material, which is processed in a very elaborate process using high-pressure ovens - so-called autoclaves - because the advantages are obvious. Less weight means lower rotational mass leading not only to improved acceleration and braking behavior but also makes the bike easier to handle.

In the new M RR, the M Carbon wheels feature a new lacquer clearcoat that brings out the deep black shimmering carbon fiber structure even more intensively. New graphics in M design on the rims emphasize this high-tech look. As an alternative to the M Carbon wheels, the new M RR can now also be ordered with forged wheels.

Redesigned rear end and ergonomic M Endurance seat

A newly designed rear end makes the current M RR look lighter and sportier. The short license plate bracket and the ergonomically designed M Endurance seat are new features. The special design of the seat contour provides the rider with a significantly larger contact area when hanging-off. The benefits are better feedback and fatigue-free riding. As before, the license plate bracket and the indicator and license plate lights form one unit and the functions of the brake and taillights are integrated into the side indicator lights. The extremely compact grouping makes it easy to get the M RR ready for track use in a few simple steps. Thanks to a modified wiring harness, which is now equipped with a LWS connector, disassembly is now even quicker and easier.

Updated M Competition Package

If the M RR in standard trim is still not enough for you, the M Competition Package offers a mix of premium components for the racing technology enthusiast and the aesthetically minded rider alike. In addition to the M GPS Laptrigger software and associated activation code, the M Competition package includes the M milled parts package, the M Carbon package as well as a natural-colored anodized, 220-grams / 7.8-ounces lighter swinging arm, the DLC-coated M Endurance chain and the Passenger Package including hump cover. Components of the M milled parts package are brake and clutch levers milled from high-strength aluminum and anodized, as well as a new, weight-optimized rider footrest system reduced to the essential functions and a brake lever guard. The M Carbon package includes covers for the rear wheel made of visible carbon and coated

with clear lacquer, as well as the drive sprocket, a chain guard and the side and tank panels on the left and right.

BMW Motorrad Customer Racing

The new M RR is homologated globally with FIM regulations for the FIM Superstock class and for the FIM Superbike World Championship. It will be manufactured in the minimum number of 500 units required for the World Championship and beyond. In the U.S., the new M RR is pending homologated for the Stock 1000 and Superbike classes with MotoAmerica. Within the price range specified by the regulations, the new M RR includes all of the essential extras for motorsport homologation. This makes the M RR a highly effective platform for Superstock and Superbike classes as well as for endurance races for numerous teams all over the world.

Standard Equipment

- 999 cc, 4-cylinder engine with 2 injectors per cylinder
- Titanium exhaust
- Anti-hopping clutch
- BMW ShiftCam variable camshaft control
- Gear shift assist Pro
- ABS Pro with Race ABS (Partly integral) linked with Ride Modes
- Carbon wheels
- Dynamic Traction Control
- Rear compression, rebound & preload adjustable
- Steering stabilizer
- M Chassis kit
- M Winglet
- Radial front brake caliper
- Upside Down Fork
- Electronic immobilizer
- Color TFT screen 6.5" with Connectivity and Multi-controller.
- Heated Grips
- LED turn indicators, headlight and taillight with Comfort Turn Indicators
- M Lightweight Battery
- Drop Sensor

- USB port
- Cruise control
- On Board Computer
- M sport seat
- Ride Modes Pro
- Adjustable handbrake and clutch levers
- Detachable license plate bracket
- Hill Start Control Pro
- Aluminum Fuel Tank

Optional Packages and Equipment

M Competition Package

- Black Storm Metallic / M Motorsport
- M Endurance chain
- Clear anodized Swingarm
- M GPS Laptrigger
- Passenger Kit
- M Carbon Package
 - M Carbon front and rear fenders
 - M Aero Wheel Cover
 - M Airbox Cover
 - M Carbon tank covers left and right
 - M Carbon Chain Guard
 - M Carbon Sprocket Cover
 - M Carbon Passenger Seat Cover
- M Billet Package
 - M Folding Brake Lever
 - M Brake Lever Guard
 - M Folding Clutch Lever
 - M Rider Footrest System

M Performance Parts

- M GPS activation code
- M GPS Datalogger including M GPS Laptrigger

- M Endurance chain
- M axle protectors
- M Carbon airbox cover
- M Carbon wheels
- M Carbon chain guard
- M Carbon rear wheel cover
- M Carbon sprocket cover
- M Carbon tank cover left/right
- M rider footrests
- M rider footrest system
- M seat / M seat high / M seat low
- M pillion footrests left/right
- M folding handbrake lever
- M remote adjustment for brake
- M handbrake lever protector
- M chain tensioner
- M folding clutch lever
- M clutch lever protector
- M mounting stand receptacle
- M oil filler neck
- M cover kit
- M fork clamp for stub handlebars left/right
- M forged wheels
- M tire warmers

Comfort, Design and Maintenance

- Pillion seat
- Windscreen tinted
- Knee pads for tank.
- Tank pad
- Protective glass for 6.5-inch TFT display
- Motorbike rug
- BMW Motorrad Battery Charger Plus
- Sport wheel stands, front and rear

Specifications

		BMW M 1000 RR
Engine		Liquid-cooled inline 4-cylinder
Capacity	cc	999
Bore x stroke	mm	80.0 x 49.7
Power	hp	205 @ 13,000 rpm
Torque	lb-ft.	83 @ 11,000 rpm
Max. engine speed	rpm	15,100
Compression ratio		13.5:1
Fuel		Power rated at 98 RON. 95-98 RON knock control
Valvetrain		DOHC, valve actuation via single cam followers BMW ShiftCam variable intake cam control
Valves per cylinder		4
Intake / Exhaust valve diameter	mm	33.5 / 27.2
Throttle body diameter	mm	48
Engine control		BMS-0
Emission control		Closed-loop three-way catalytic converter
Alternator	watts	450
Battery	Volts / Ah	M lightweight battery 12v / 5 Ah
Headlamp		LED free-form twin low-beam, LED free-form high-beam
Starter	kW	0.8
Clutch		Self-reinforcing multi-plate anti-hopping oil bath clutch, mechanically operated
Gearbox		6-speed, constant-mesh
Primary ratio		1.652
Transmission gear ratios I		2.647
II		2.091
III		1.727
IV		1.500
V		1.360
VI		1.261
Secondary ratio		2.706

Rear wheel drive type		Chain
Frame construction type		Aluminum composite bridge frame, engine self-supporting
Front suspension		Upside-down telescopic fork, 45 mm slide tube diameter Spring preload, rebound and compression adjustable Optional DDC electronically adjustable damping
Rear suspension		Aluminum underslung double-sided swingarm Central spring and shock absorber Spring preload, rebound and compression adjustable Optional DDC electronically adjustable damping
Suspension travel front / rear	inches	4.7 / 4.6
Wheel castor	inches	3.9
Steering head angle	degrees	23.6
Brakes, front		Twin M 320 mm / 12.6-inch floating disks 4-piston fixed calipers
Brakes, rear		Single 220 mm / 8.7-inch, two-piston fixed caliper
ABS		BMW Motorrad ABS Pro, partially integral, disengageable
Traction control		BMW Motorrad DTC
Wheels		Standard M Carbon wheels
Wheels, front / rear	inches	3.50 x 17 / 6.00 x 17
Tires, front / rear		120/70 ZR17 / 200/55 ZR17
Length x width x height	inches	81.6 x 33.4 x 47.4
Wheelbase	inches	57.4
Seat height	inches	32.8
Curb weight	lbs.	423
Dry weight	lbs.	375
Permitted total weight	lbs.	897
Fuel tank capacity	gallons	4.35
Acceleration, 0-60 mph	seconds	3.1
Top speed	mph	189+

BMW Group in America

BMW of North America, LLC has been present in the United States since 1975. Rolls-Royce Motor Cars NA, LLC began distributing vehicles in 2003. The BMW Group in the United States has grown to include marketing, sales, and financial service organizations for the BMW brand of motor vehicles, including motorcycles, the MINI brand, and Rolls-Royce Motor Cars; Designworks, a strategic design consultancy based in California; a technology office in Silicon Valley, and various other operations throughout the country. BMW Manufacturing Co., LLC in South Carolina is the BMW Group global center of competence for BMW X models and manufactures the X3, X4, X5, X6 and X7 Sports Activity Vehicles. The BMW Group sales organization is represented in the U.S. through networks of 350 BMW passenger car and BMW Sports Activity Vehicle centers, 146 BMW motorcycle retailers, 105 MINI passenger car dealers, and 38 Rolls-Royce Motor Car dealers. BMW (US) Holding Corp., the BMW Group's sales headquarters for North America, is located in Woodcliff Lake, New Jersey.

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