

The New BMW F 450 R.



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Quick Start: The New BMW F 450 R in Brief.

Core message. The BMW F 450 R is a lightweight, agile naked bike for the 48-hp or A2 class. It combines signature BMW riding pleasure with excellent accessibility, precise handling, and a distinctive design inspired by the S 1000 R.

- **Product benefits:** 48 hp and a ready-to-ride weight of 175 kg, a torque-rich parallel-twin engine, and road-focused chassis tuning deliver nimble performance in everyday riding and on winding country roads.
- **Ease of use:** The optional Easy Ride Clutch engages the clutch according to engine speed; together with Shift Assistant Pro, it enables riding and shifting without manual clutch operation.
- **Safety and connectivity:** Three riding modes, ABS Pro, DBC, DTC, and MSR are standard, along with LED lighting, a 6.5-inch TFT display, and connectivity features.
- **Choice:** Four variants—Base, Exclusive, M Sport, and M Sport with Innovation Package—allow a graduated configuration of chassis, shifting convenience, and equipment.

How to find the relevant content quickly.

For a concise overview, read Chapter 1. In-depth information on design and ergonomics, the powertrain, chassis, electrical system, and equipment is provided in Chapter 2. Engine output and torque figures are listed in Chapter 3, complete technical specifications in Chapter 4, and concise answers to key product questions in Chapter 5.



1. Summary – The BMW F 450 R at a Glance.



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"The BMW F 450 R has everything that defines a true BMW naked bike: performance, precision, and pure riding pleasure. It is light, agile, and full of character. We have developed a motorcycle that inspires confidence from the outset while also generating a lot of excitement. With the F 450 R, we are bringing our decades-long naked bike tradition into a compact and especially accessible format."

Markus Flasch, CEO BMW Motorrad

The new BMW F 450 R: A dynamic naked bike for the 48-hp class—developed for maximum riding pleasure and featuring iconic BMW design language.

The new BMW F 450 R for the 48-hp class was developed as a standalone naked bike within the BMW F 450 model family. The focus was on signature BMW riding pleasure, enabled by a carefully engineered chassis and geometry layout, rigorous weight optimization, and a powerful parallel-twin engine. Its design clearly follows the current design language of the high-performance S 1000 R naked bike and visually underscores its sporty ambitions.

Smooth and characterful parallel-twin engine with a 135-degree crankpin offset for dynamic riding pleasure.

At the heart of the new BMW F 450 R is the newly developed fuel-injected parallel-twin engine first used in the F 450 GS, together with a stainless-steel underfloor muffler. For use in the F 450 R, it has been specifically tuned for road riding and gives the motorcycle a particularly distinctive sound. With an output of 35 kW (48 hp) at 8,750 rpm and maximum torque of 43 Nm at 6,750 rpm, the new F 450 R delivers powerful acceleration and confident roll-on performance. As much as 80 percent of the available torque is already on tap at 3,000 rpm, providing strong propulsion from low engine speeds. High-tech materials and optimized internal friction make these performance figures possible from exactly 420 cc. This makes the engine one of the most compact and powerful units in the A2 parallel-twin segment. It not only meets the stringent Euro 5+ requirements, but is also particularly efficient, with fuel consumption of just 3.8 liters per 100 km. With its 14-liter fuel tank, the F 450 R achieves a range of more than 350 km. The service interval is the BMW Motorrad-standard 10,000 km.

Easy Ride Clutch (ERC) for a significant increase in operating and riding comfort.

The optional Easy Ride Clutch (ERC) engages the clutch according to engine speed, increasing comfort and control—especially in urban traffic, while maneuvering, and on winding country roads. In combination with Shift Assistant Pro, it enables riding and shifting without manual clutch operation; the clutch lever remains available for deliberate rider input.

Six-speed transmission and left-side secondary drive. Shift Assistant Pro for fast upshifts and downshifts without operating the clutch.

The six-speed transmission transfers torque to the left-side secondary drive via an X-ring chain. For rapid upshifts and downshifts without operating the clutch, the new F 450 R is equipped with Shift Assistant Pro in every equipment variant except the base model. It can be retrofitted to the base model.

ABS Pro, DBC, DTC, and MSR, plus the "Rain," "Road," and "Dynamic" riding modes as standard—delivering a high level of riding pleasure and safety.

The standard "Rain," "Road," and "Dynamic" riding modes allow riders to tailor the new BMW F 450 R to their individual preferences.

ABS Pro, Dynamic Brake Control (DBC), Dynamic Traction Control (DTC), and engine drag torque control (MSR) are also standard.

Chassis with a tubular steel space frame for high rigidity, robustness, and riding precision. Naked bike-specific tuning and a short wheelbase for agile, playful turn-in behavior.

The new BMW F 450 R also uses the newly developed BMW F 450 GS chassis concept as its technical foundation, with a setup tailored specifically to road use. The tuning focused on easy handling, excellent accessibility, and direct feedback. The tubular frame is made of welded steel tubes and forged components, with the parallel-twin engine integrated as a load-bearing element.

Front wheel control via KYB upside-down telescopic fork and rear wheel control via an aluminum hollow-cast double-sided swingarm with a KYB central spring strut.

At the front, a torsionally rigid 43 mm KYB upside-down telescopic fork controls the wheel. On the so-called "Sport Suspension," the fork offers adjustable rebound and compression damping.

At the rear, the wheel is guided by a closed, highly torsion-resistant yet lightweight hollow-cast aluminum double-sided swingarm. It is paired with a directly mounted KYB central spring strut with adjustable spring preload and rebound damping.

Wheels and tires designed for dynamic riding pleasure.

The new BMW F 450 R rides on lightweight yet robust cast-aluminum wheels. The naked bike is fitted with tubeless tires measuring 110/70-17 at the front and 150/60-17 at the rear.

Powerful braking system combined with BMW Motorrad ABS Pro for safe braking, even when leaned over. Dynamic Brake Control (DBC) and the dynamic brake light provide additional safety features.

At the front wheel of the new BMW F 450 R, a floating single-disc brake with a Brembo four-piston monobloc fixed caliper and a 310 mm brake disc provides confident and efficient deceleration. At the rear, a single-disc brake with a floating ByBre single-piston caliper and a 240 mm disc is used.

BMW Motorrad ABS Pro is standard on the new BMW F 450 R. The system enables ABS-assisted braking when leaned over, increasing safety in corners. Dynamic Brake Control (DBC) enhances safety during braking in challenging situations by preventing unintended

throttle application. The dynamic brake light effectively alerts following vehicles that the motorcycle ahead is slowing down.

Optimal ergonomics and equipment for comfortable, playfully agile riding enjoyment on the road.

A carefully engineered ergonomic triangle and a tapered aluminum handlebar positioned high and close to the rider provide an ideal riding position in all conditions. The bodywork and the 14-liter fuel tank beneath it are shaped for secure support and effective knee grip.

The new BMW F 450 R comes standard with a two-piece seat at a height of 790 mm, offering most riders an ideal balance of comfort and performance. Ergonomics can be customized with Original BMW Motorrad Accessories: the high Sport rider's seat raises the seating position by 20 mm, while the low rider's seat lowers it by 15 mm. The gearshift lever, footbrake lever, and side stand are made of forged aluminum. The passenger footpeg brackets are bolted to the rear frame—an exceptional feature in this vehicle class.

Reversible shift pattern for an extra dose of sportiness and a true racing feel.

For an extra dose of sportiness, the shift pattern can be reversed quickly and with minimal effort—ideal for occasional track outings.

Powerful LED headlight and LED lighting as standard. Connectivity with comprehensive information and functionality through a large, perfectly legible 6.5-inch TFT display. Practical USB-C port in the cockpit area.

The new BMW F 450 R comes standard with an LED headlight featuring bracket-shaped daytime running light LEDs. The turn indicators and taillight of the new F 450 R also use LED technology.

The standard 6.5-inch TFT display on the new BMW F 450 R offers a wide range of information, brilliant display quality, and intuitive operation at a premium level. The TFT display features the Pure Ride Screen. M Sport variants with Riding Modes Pro also offer three additional Sport screens with detailed information on DTC, braking force, and lean angle, as well as a lap timer function. Riders can also make phone calls, listen to music, and navigate conveniently while riding.

Four attractive equipment variants for the new BMW F 450 R.

The new BMW F 450 R is available in four equipment variants. The **BMW F 450 R Base** is finished in Cosmic Black. Also finished in Cosmic Black, the **BMW F 450 R Exclusive** additionally features Shift Assistant Pro and the Sport Suspension. The range-topping models are the **BMW F 450 R M Sport** and the **BMW F 450 R M Sport with Innovation Package** (including Easy Ride Clutch), in Snäefell white / M Motorsport, including Riding Modes Pro, Shift Assistant Pro, and the Sport Suspension. Their white frame and rim stickers in M Motorsport colors create distinctive visual accents.

Highlights of the new BMW F 450 R:

- Development focus: maximum riding pleasure through excellent handling, strong performance, rigorous weight optimization, and optimal accessibility.
- Outstanding power-to-weight ratio in the A2 class: 48 hp with a ready-to-ride weight of just 175 kg.
- Parallel-twin engine producing 35 kW (48 hp) at 8,750 rpm and maximum torque of 43 Nm at 6,750 rpm.
- Lightweight, characterful engine with excellent smoothness thanks to a balance shaft and 135-degree crankpin offset, combined with a rigorous lightweight design.
- Four attractive equipment variants:
 - **BMW F 450 R Base.**
 - **BMW F 450 R Exclusive** (including Shift Assistant Pro and Sport suspension).
 - **BMW F 450 R M Sport** (including Riding Modes Pro, Shift Assistant Pro, and Sport suspension).
 - **BMW F 450 R M Sport with Innovation Package** (including ERC, Riding Modes Pro, Shift Assistant Pro, and Sport suspension).
- Easy Ride Clutch (ERC) for a significant increase in ease of use, riding comfort, and performance: available ex-factory for M Sport as part of the Innovation Package; retrofittable to all other variants as an Original BMW Motorrad Accessory.

- Six-speed transmission and left-side secondary drive. Shift Assistant Pro for fast upshifts and downshifts without operating the clutch.

- Stainless-steel underfloor exhaust system with two catalytic converters.

- "Rain," "Road," and "Dynamic" riding modes, plus ABS Pro, DBC, DTC, and MSR, are standard for a high level of riding pleasure and safety. Riding Modes Pro adds the individually configurable "Dynamic Pro" riding mode.

- Chassis with a tubular steel space frame for optimal rigidity, robustness, and riding precision. Naked bike-specific tuning, a short wheelbase, and compact packaging.

- Front wheel control via an upside-down telescopic fork and rear wheel control via an aluminum hollow-cast double-sided swingarm with a central spring strut; spring preload and rebound damping are adjustable.

- Powerful Brembo braking system combined with BMW Motorrad ABS Pro for safe braking, even when leaned over. Dynamic Brake Control (DBC) and a dynamic brake light provide additional safety features.

- Forged-aluminum foot controls and side stand for optimized weight.

- Passenger footpeg brackets bolted to the rear frame.

- Reversible shift pattern for occasional track outings.

- Heated grips as standard.

- Powerful LED headlight and LED lighting as standard.

- Connectivity with extensive capabilities and exemplary functionality through a large, perfectly legible 6.5-inch TFT display.

- Practical USB-C port in the cockpit area.

- Tailored Original BMW Motorrad Accessories in premium quality—from storage and design to M Performance Parts, safety, ergonomics and comfort, maintenance and technology, navigation, and communication.

2. The New BMW F 450 R in Detail.

Following the summary, this chapter describes the new BMW F 450 R in detail—from design and ergonomics to the powertrain and chassis, as well as the electrical system, rider assistance systems, and equipment program.

2.1 Design and Ergonomics.

"With its distinctive side trim panel and the naked-bike-style flyline based on the 'tail up—nose down' principle, the BMW F 450 R unmistakably yet subtly references the design DNA of the S 1000 R without copying it one-to-one. At the same time, it translates this character into an especially light, accessible, and dynamic form—complemented by ergonomics that inspire confidence from the very first moment."

Alexander Buckan, Head of Design BMW Motorrad

The new BMW F 450 R: A dynamic naked bike for the 48-hp class—developed for maximum riding pleasure and featuring iconic BMW design language.

The new BMW F 450 R for the 48-hp class was developed as a standalone naked bike within the BMW F 450 model family. The focus was on signature BMW riding pleasure, enabled by a carefully engineered chassis and geometry layout, rigorous weight optimization, and a powerful parallel-twin engine. Its design clearly follows the current design language of the high-performance S 1000 R naked bike and visually underscores its sporty ambitions.

The "tail up—nose down" principle gives the F 450 R a distinctly assertive and sporty appearance. The low front section and high rear visually convey the qualities that define the F 450 R's technical DNA: low weight, easy accessibility, sporty lightness, and agile handling.

Iconic features make its membership in the BMW Motorrad naked bike family immediately apparent: the LED headlight with its bracket-shaped daytime running light signature, the characteristic flyline, distinctive tank covers, and side trim panels shaped like a stylized "R."

Balanced ergonomics and equipment for a riding experience that is both relaxed and engaging on the road.

The ergonomic triangle was developed over countless test miles in a wide range of conditions. Together with the tapered aluminum handlebar positioned high and close to the rider, it provides an ideal riding position in all conditions. The bodywork and the 14-liter fuel tank beneath it are shaped for secure support and effective knee grip. The fuel filler cap is also designed to accommodate a strapless tank bag from the Original BMW Motorrad Accessories range.

The new BMW F 450 R comes standard with a two-piece seat at a height of 790 mm. For most riders, it provides ideal ergonomic conditions in terms of comfort and performance.

Original BMW Motorrad Accessories include the high Sport rider's seat (+20 mm) and the low rider's seat (-15 mm) for individual ergonomic adjustment. The gearshift lever, footbrake lever, and side stand are made of forged aluminum. The passenger footpeg brackets are bolted to the rear frame.

Four attractive equipment variants for the new BMW F 450 R.

BMW F 450 R Base.

Cosmic Black.

BMW F 450 R Exclusive.

Cosmic Black.

- Shift Assistant Pro.
- Sport suspension.

BMW F 450 R M Sport.

Snaefell white / M Motorsport with a white frame and rim stickers in M Motorsport colors.

- Riding Modes Pro with the individually configurable "Dynamic Pro" riding mode.
- Shift Assistant Pro.
- Sport suspension.

BMW F 450 R M Sport with Innovation Package.

Snaefell white / M Motorsport with a white frame and rim stickers in M Motorsport colors.

- Riding Modes Pro with the individually configurable "Dynamic Pro" riding mode.
- Shift Assistant Pro.
- Sport suspension.
- Easy Ride Clutch.

2.2 BMW F 450 R Engine. 48 Hp, 43 Nm, and Easy Ride Clutch.

"With the newly developed parallel-twin engine first used in the BMW F 450 GS, the new BMW F 450 R has an outstanding powertrain for sporty riding pleasure on winding country roads. Low weight, strong torque from low engine speeds, and an excellent power-to-weight ratio make it the perfect partner for a broad range of uses."

Stefan Ritter, Head of Powertrain Development

Exceptionally smooth and characterful parallel-twin engine for sporty riding pleasure on winding country roads.

For decades, the BMW Motorrad F series have combined compelling all-round qualities and a high level of riding pleasure with easy, confidence-inspiring control. With the new F 450 R naked bike, BMW Motorrad now brings this successful formula specifically to the popular 48-hp class (A2 license class), adding a dynamic naked bike to the BMW F 450 model family launched last year.

The newly developed parallel-twin engine, first used in the BMW F 450 GS, combines forceful acceleration and strong roll-on performance with low vibration and low fuel consumption. For the F 450 R, the engine has been specifically tuned for road use, while the premium stainless-steel underfloor muffler gives it an especially distinctive sound. Development priorities included low weight, high output, strong roll-on performance, and excellent refinement.

At just 3,000 rpm, 80 percent of maximum torque is already available. This provides forceful propulsion and confident roll-on performance from low engine speeds. The technical basis is a displacement of 420 cc, resulting from a 72 mm bore and 51.6 mm stroke. The engine produces 35 kW (48 hp) at

8,750 rpm and reaches its maximum torque of 43 Nm at 6,750 rpm.

Characterful, emotional sound from a crankshaft with a 135-degree crankpin offset, uneven firing intervals, and a newly developed premium underfloor muffler.

The parallel-twin engine of the new BMW F 450 R is mounted transversely and liquid-cooled. Unique in the motorcycle market, it features a crankshaft with crankpins offset by 135 degrees. This design, together with the newly developed premium underfloor muffler, gives the engine an especially emotional sound while keeping vibration levels very low for the rider. Rigorous lightweight measures also reduce the overall weight of the new BMW F 450 R, including materials exceptional in this motorcycle class, such as magnesium covers for the clutch and transmission.

Optimized refinement through a counter-rotating balance shaft and wet-sump lubrication.

A counterweight shaft (balance shaft) positioned ahead of the crankshaft reduces unwanted vibration. It is driven by a spur gear. Together with the 135-degree crankpin offset, it ensures excellent refinement.

A wet-sump lubrication system with a chain-driven oil pump reliably supplies the engine with lubricating oil under all operating conditions.

Two overhead camshafts and four rocker-arm-actuated valves per cylinder.

Two overhead camshafts rotate in the cylinder head of the new F 450 R and actuate four valves per cylinder via lightweight rocker arms designed for high engine speeds. On the right side of the engine, a toothed chain driven by the crankshaft operates the exhaust camshaft, which transfers power to the intake camshaft through a pair of gears.

The valve angles support an advantageous combustion chamber design, optimum power and torque output, and high efficiency. They are 12 degrees on the intake side and 12.4 degrees on the exhaust side. The valve heads measure 29 mm on the intake side and 24.3 mm on the exhaust side. The compression ratio is 13:1.

The mixture is prepared by port fuel injection with the latest-generation BMS-Z engine management system. In the ride-by-wire system, a sensor at the throttle grip detects the rider's input and transmits it directly to the engine management system, which controls the throttle-valve opening angle for optimum modulation and direct response.

Easy Ride Clutch (ERC) for a significant increase in riding pleasure, ease of use, and riding comfort.

The Easy Ride Clutch (ERC) provides greater riding pleasure, control, and comfort—especially in dense urban traffic with frequent starting and stopping, while maneuvering, and on winding country roads. It enables a relaxed and intuitive riding experience without compromising the sporty character of the BMW F 450 R.

The Easy Ride Clutch is available as an option. In combination with BMW Shift Assistant Pro, manual operation of the clutch lever is no longer required. For the M Sport equipment variant, the system is available as optional equipment in the "Innovation Package." It can be retrofitted to the other equipment variants as an Original BMW Motorrad Accessory.

The clutch lever remains in place, allowing manual intervention at any time—for example, during especially precise riding maneuvers, sporty riding on winding roads, or when the rider wants to modulate power transmission individually in specific situations.

Technically, this is made possible by a precisely operating centrifugal unit in the clutch that engages according to engine speed. Unlike conventional systems, the advanced centrifugal clutch remains closed during overrun. This gives the motorcycle natural, familiar, and consistently predictable riding behavior. Engine braking remains effective until shortly before the motorcycle comes to a stop; only when idle speed is reached does the ERC open automatically, reliably preventing the engine from stalling.

Six-speed transmission and left-side secondary drive. Shift Assistant Pro for fast upshifts and downshifts without operating the clutch.

For optimum riding dynamics, the six-speed transmission transfers torque to the left-side secondary drive via an X-ring chain. For rapid upshifts and downshifts without operating the clutch, the new F 450 R comes standard with Shift Assistant Pro in every

equipment variant except the base model. It can be retrofitted to the base model.

Shift Assistant Pro enables clutchless upshifts with virtually no interruption in traction. Downshifts likewise require no use of the clutch. As a result, the F 450 R changes gears very quickly while the clutch is needed only rarely; unwanted load changes and jolting at the rear wheel are noticeably reduced.

Shift Assistant Pro also significantly reduces the independent movements of rider and passenger during conventional gear changes, making shared motorcycle rides even more comfortable.

Reversible shift pattern for an extra dose of sportiness and a true racing feel.

For an extra dose of sportiness, the shift pattern can be reversed quickly and with minimal effort—ideal for occasional track outings.

Premium stainless-steel underfloor exhaust system with advantages in weight distribution and sound.

The stainless-steel underfloor exhaust system of the new BMW F 450 R creates a distinctive visual accent with its striking design. Its weight-optimized construction contributes to the F 450 R's low overall weight. The central position beneath the motorcycle also provides optimum cornering clearance and reduces the risk of contact—and therefore burns—for the passenger and luggage. At the same time, this muffler solution produces an especially distinctive sound.

ABS Pro, DBC, DTC, and MSR, plus the "Rain," "Road," and "Dynamic" riding modes as standard—delivering a high level of riding pleasure and safety.

The standard "Rain," "Road," and "Dynamic" riding modes allow the rider to tailor the new BMW F 450 R to individual preferences. ABS Pro, Dynamic Brake Control (DBC), Dynamic Traction Control (DTC), and engine drag torque control (MSR) are also standard. The riding modes are intelligently linked with the control systems to precisely adapt the F 450 R to the relevant operating conditions.

"Rain" is designed for riding on wet roads. Throttle response is softer, and all control systems are configured for maximum stability and control of the motorcycle.

"Road" is intended for use on dry roads. Engine response is direct, while traction control is calibrated for a balanced combination of stability and riding dynamics. All other control systems are likewise set for high stability.

"Dynamic" is designed for sporty riding on dry roads. Traction control, front-wheel lift detection, and engine drag torque control intervene less, enabling a more direct riding experience.

Riding Modes Pro is standard on the M Sport variants and available for all other variants as an Original BMW Motorrad optional accessory. The additional "Dynamic Pro" riding mode expands the standard selection. It allows individual adjustment of throttle response, DTC, and ABS, enabling the control characteristics to be tailored specifically to the rider's personal style and the riding situation.

2.3 BMW F 450 R Chassis.

175 kg, 17-inch Wheels, and Agile Handling.

"With the BMW F 450 R, we consistently transformed the technical foundation of the F 450 GS into a standalone BMW naked bike," explains Marc Weber, lead engineer for the BMW F 450 R. "To achieve this, we precisely developed the chassis geometry, rider ergonomics, and overall vehicle package for the demands of road riding. The result is a motorcycle with outstanding handling, direct feedback, and easy accessibility—exactly the combination that defines a dynamic BMW naked bike in this class."

Chassis with a tubular steel frame for optimum rigidity, robustness, and riding precision. Naked-bike-specific tuning, a short wheelbase, and compact packaging.

The new BMW F 450 R uses a welded tubular steel space frame with integrated forged components. The parallel-twin engine is incorporated as a load-bearing element, contributing to the compact, rigid, and robust overall structure. For use as a naked bike, the chassis layout was specifically designed for direct turn-in, high stability, and easy control on the road. This provides an essential foundation for signature BMW riding pleasure in the 48-hp class.

Geometry plays a central role in the motorcycle's riding dynamics: the wheelbase is 1,405 mm, the steering-head angle is 23.4 degrees, and the trail is 110 mm. The compact packaging also facilitates access to the key components.

Front wheel control via an upside-down telescopic fork and rear wheel control via an aluminum hollow-cast double-sided swingarm with a central spring strut.

At the front, a torsionally rigid KYB upside-down telescopic fork with 43 mm inner tube diameter controls the wheel. Suspension travel is 140 mm. The fork tubes are gold-anodized, and the triple clamp is forged aluminum. With the so-called "Sport suspension," rebound and compression damping are adjustable.

At the rear, a lightweight, torsionally rigid aluminum swingarm guides the wheel in conjunction with a directly mounted KYB central spring strut. Spring preload and rebound damping can be adjusted to suit the load and riding style.

17-inch wheels and tires designed for dynamic riding pleasure.

The choice of wheels and tires underscores sporty, dynamic cornering enjoyment on the road. The new BMW F 450 R therefore rides on lightweight yet robust cast-aluminum wheels with tubeless tires measuring 110/70-17 at the front and 150/60-17 at the rear.

Powerful braking system combined with BMW Motorrad ABS Pro for safe braking, even when leaned over. Dynamic Brake Control (DBC) and a dynamic brake light provide additional safety features.

At the front wheel of the new BMW F 450 R, a floating single-disc brake with a Brembo four-piston monobloc fixed caliper and a 310 mm brake disc provides confident and efficient deceleration. At the rear, a single-disc brake with a floating ByBre single-piston caliper and a 240 mm disc is used.

The new BMW F 450 R comes standard with BMW Motorrad ABS Pro. The system enables ABS-assisted braking when leaned over, increasing safety in corners. Even when the brakes are applied rapidly, ABS Pro prevents the wheels from locking. During emergency braking, it reduces abrupt changes in steering force and therefore the motorcycle's unwanted tendency to stand up. This helps the motorcycle remain as stable as possible in corners while delivering optimum deceleration. Depending on the selected riding

mode, ABS Pro and engine drag torque control (MSR) adapt their control characteristics to the relevant braking maneuver.

Dynamic Brake Control (DBC) increases safety during braking in challenging situations by preventing unintended throttle application. If the sensor box detects a certain deceleration level during braking, the system interprets a simultaneous acceleration request from the rider as implausible and prevents the throttle valves from opening. This keeps the motorcycle stable and shortens the braking distance.

The dynamic brake light effectively alerts following vehicles to the motorcycle slowing ahead. This additional brake-light function warns following traffic in two stages of hard braking or even emergency braking.

2.4 BMW F 450 R Equipment.

TFT Display, Riding Modes, and Assistance Systems.

Powerful LED lighting units as standard.

The new BMW F 450 R comes standard with an LED headlight featuring an iconic bracket-shaped daytime running light signature. The turn indicators and taillight of the new F 450 R also use LED technology.

Connectivity with extensive capabilities and exemplary functionality through a large, perfectly legible 6.5-inch TFT display. Practical USB-C port in the cockpit area.

The standard 6.5-inch TFT display on the new BMW F 450 R offers a wide range of information, brilliant display quality, and intuitive operation at a premium level. Its generous dimensions ensure excellent legibility even in challenging lighting conditions. The display can be operated quickly, safely, and conveniently using the Multi-Controller on the left handlebar control. A practical USB-C port is located in the handlebar area.

The TFT display features a Pure Ride screen tailored to sporty road use. M Sport variants with Riding Modes Pro also offer three additional Sport screens with detailed information on DTC, braking force, and lean angle, as well as a lap timer function.

Riders can also make phone calls, listen to music, and navigate conveniently while riding. For example, they can connect a smartphone and a helmet equipped with the BMW Motorrad Communication System to the TFT display via Bluetooth. Media and phone functions can then be accessed conveniently without installing an app. With an active Bluetooth connection to a standard smartphone, music can be played while riding. In addition, the free BMW Motorrad Connected App displays practical turn-by-turn navigation directly on the TFT display. This basic navigation is particularly suitable for everyday rides or short trips without additional equipment.

Riders who want more than turn-by-turn navigation can use the optional navigation preparation. It supports map navigation with the BMW Motorrad ConnectedRide Navigator, available as an Original BMW Motorrad Accessory, or the ConnectedRide Smartphone Cradle in conjunction with the BMW Motorrad Connected App. Both solutions can be controlled using the left-hand Multi-Controller (MMC).

2.5 Equipment Program.

Original BMW Motorrad Accessories for the new BMW F 450 R.

An extensive range of Original BMW Motorrad Accessories provides further opportunities to personalize the new BMW F 450 R. It includes solutions for navigation, seats, protection, comfort, cases and luggage, safety, design, ergonomics, and performance parts. This allows the F 450 R to be tailored specifically to individual requirements. Selected accessory highlights enhance everyday usability, expand options for short trips, and add individual visual accents.

Everyday use / short trips.

For daily use and short tours, practical accessory solutions expand the versatility of the new BMW F 450 R. The strapless tank bag provides additional storage without complicated mounting and integrates neatly into the motorcycle's design. The new soft cases offer flexible luggage options for short trips and enhance everyday usability without compromising the motorcycle's dynamic character. M hand lever protectors and engine protectors complement the range with functional protective components and

underscore the robust, practical focus of Original BMW Motorrad Accessories.

Style / appearance.

For an even more individual and sporty appearance, Original BMW Motorrad Accessories offer distinctive components to enhance the look of the new BMW F 450 R. The gold aluminum handlebar adds a premium color accent in the cockpit area, while bar-end mirrors further emphasize the clean, sporty lines. Sport rider footrests reinforce the dynamic appearance, as do the axle protectors, which combine functionality with a sporty, technical look.

Original BMW Motorrad Accessories.

Storage.

- Soft Cases, Black, 16.5 Liters Each.
- Soft-Case Holders, Black.
- Black Collection Tank Bag, 5–8 Liters (Strapless Attachment).
- Luggage Roll, 40 Liters / 60 Liters.
- Small Rear Bag, 35–42 Liters (Various Collections).
- Large Rear Bag, 50–60 Liters (Various Collections).
- Luggage Rack Bag, Black, 4.5 Liters.

Design.

- Aluminum Handlebar, Gold.
- Bar-End Mirrors, Black.

M Performance Parts.

- M Hand Lever Protectors.

Safety.

- Engine Protection Bar, Black.
- Radiator Guard.
- Hand Guards, Black.
- Axle Protectors (Front and Rear).

- Engine Protectors (Left and Right).

Ergonomics and comfort.

- Rider's Seat, Black (-15 mm).
- High Sport Rider's Seat, Black (+20 mm).
- Easy Ride Clutch (ERC).
- Shift Assistant Pro.

Maintenance and technology.

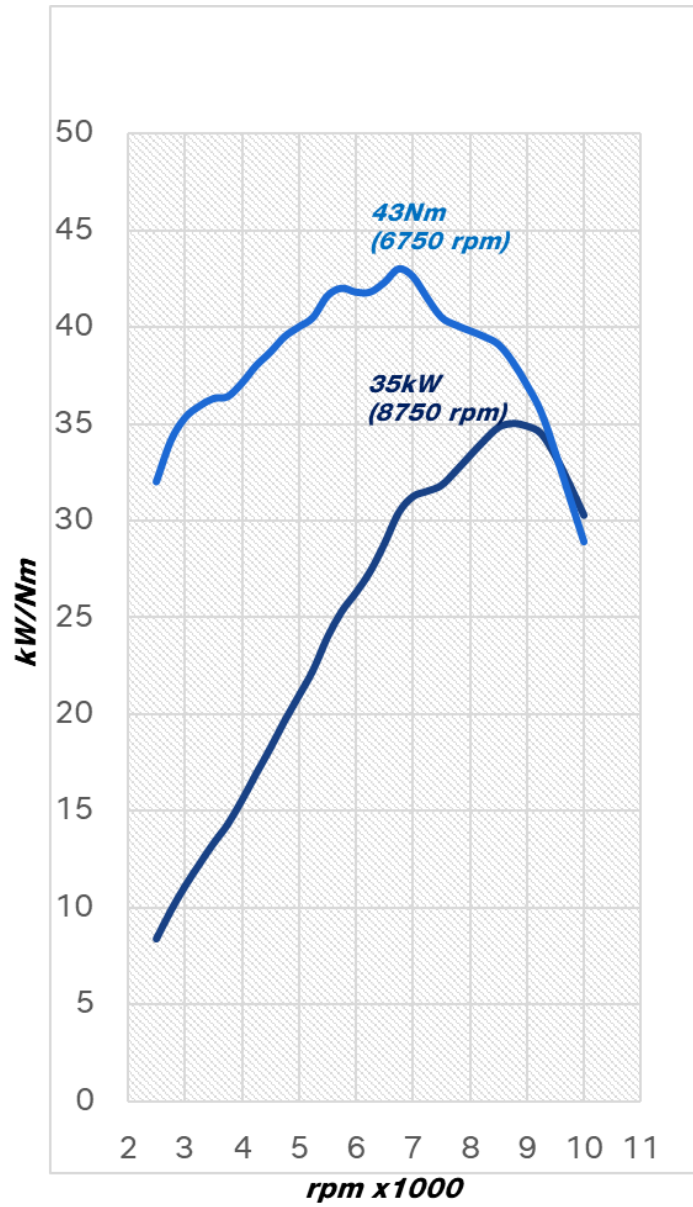
- Front/Rear Paddock Stand.
- Front Paddock Stand Adapter.
- Rear Paddock Stand Mounts.
- Riding Modes Pro.

Navigation and communication.

- Navigation Preparation.
- ConnectedRide Navigator.
- ConnectedRide Smartphone Cradle.



3. Engine output and torque.



4. Technical specifications.

F450 R		
Engine		
Displacement	cm ³	420
Bore/stroke	mm	72 × 51.6
Output	kW/hp	35/48
At rpm	rpm	8 750
Torque	Nm	43
At rpm	rpm	6 750
Design	Liquid-cooled four-stroke parallel-twin engine with two overhead camshafts, four rocker-arm-actuated valves per cylinder, and a 135-degree crankpin offset	
Compression ratio		13:1
Fuel		Unleaded premium gasoline, 95 RON
Valves per cylinder		4
Intake/exhaust valve diameter	mm	29/24.3
Throttle-valve diameter	mm	38
Engine management		BMS-Z
Exhaust-gas treatment	Closed-loop three-way catalytic converter, Euro 5+ emissions standard	
Electrical system		
Generator	W	364
Battery	VI/Ah	12/8, maintenance-free
Headlight		LED
Taillight		LED
Turn indicators		LED
Starter motor	W	700
Power transmission		
Clutch	Mechanically operated, multi-plate wet clutch	
Transmission	Constant-mesh six-speed transmission	
Primary ratio		2.025
Gear ratios	I	2.765
	II	2.062
	III	1.588
	IV	1.286
	V	1.095
	VI	0.955
Secondary drive		Chain
Secondary ratio		3.13

F 450 R**Chassis**

Frame design	Tubular steel space frame, engine as load-bearing element	
Front wheel control	KYB USD telescopic fork, diameter 43 mm; Adjustable rebound and compression damping with Sport suspension	
Rear wheel control	Aluminum swingarm, directly mounted KYB central spring strut, adjustable spring preload and rebound damping	
Suspension travel, front/rear	mm	140/140
Trail	mm	110
Wheelbase	mm	1 405
Steering-head angle	°	23.4
Brakes	front	Brembo single-disc brake, floating, diameter 310 mm, four-piston monobloc fixed caliper
	rear	ByBre single-disc brake, diameter 240 mm, single-piston floating caliper
ABS	BMW Motorrad ABS Pro (lean-angle optimized)	
Wheels	Cast-aluminum wheels	
	front	3.00 x 17"
	rear	4.00 x 17"
Tires	front	110/70-17
	rear	150/60-17

Dimensions and weights

Overall length	mm	2 002
Overall width across bar-end weights	mm	825
Seat height	mm	790
DIN unladen weight, road ready	kg	175 (176 with ERC)
Permitted gross weight	kg	355
Fuel tank capacity	l	14

Performance

Fuel consumption (WMTC)	l/100 km	3.8
CO ₂	g/km	88
Acceleration 0–100 km/h	s	5.7
Top speed	km/h	169

5. Questions and Answers About the New BMW F 450 R.

The key questions about the new BMW F 450 R—answered concisely with specific technical data.

What is the BMW F 450 R?

The BMW F 450 R is a lightweight naked bike for the 48-hp class and part of the BMW F 450 model family. It combines a 35 kW (48 hp) parallel-twin engine with chassis geometry developed specifically for road use, 17-inch wheels, and a ready-to-ride weight of 175 kg. Its concept is designed for dynamic riding, precise turn-in, and excellent accessibility.

Who is the BMW F 450 R designed for?

The BMW F 450 R is aimed at riders looking for a lightweight, agile, and accessible naked bike with premium technology. This includes A2 license holders, returning riders, and experienced motorcyclists who prefer a compact motorcycle for everyday use, urban traffic, and winding country roads.

Is the BMW F 450 R suitable for an A2 license?

Yes. With 35 kW (48 hp), the BMW F 450 R meets the maximum engine output permitted in Europe for the A2 license class. No subsequent power reduction is required.

What are the output, torque, and weight of the BMW F 450 R?

The 420 cc parallel-twin engine produces 35 kW (48 hp) at 8,750 rpm and develops maximum torque of 43 Nm at 6,750 rpm. As much as 80 percent of maximum torque is already available at 3,000 rpm. The BMW F 450 R has a ready-to-ride weight of 175 kg; with the Easy Ride Clutch, the ready-to-ride weight is 176 kg.

What distinguishes the BMW F 450 R from the BMW F 450 GS?

The BMW F 450 R uses the technical foundation of the BMW F 450 model family but was developed as a standalone naked bike for road use. Key differences from the BMW F 450 GS include chassis geometry and tuning, ergonomics, wheels, tires, packaging, and design. The F 450 R has 17-inch wheels, a short wheelbase, and tuning designed for precise turn-in and playful handling.

What is the Easy Ride Clutch on the BMW F 450 R?

The Easy Ride Clutch is an advanced centrifugal clutch that engages according to engine speed. In combination with Shift Assistant Pro, the BMW F 450 R can pull away and change gears without manual operation of the clutch lever. The clutch lever remains available for manual intervention. During overrun, the clutch stays closed, preserving engine braking until shortly before the motorcycle comes to a stop.

Which riding modes and assistance systems does the BMW F 450 R offer?

The BMW F 450 R comes standard with the "Rain," "Road," and "Dynamic" riding modes. Standard equipment also includes ABS Pro, Dynamic Brake Control (DBC), Dynamic Traction Control (DTC), and engine drag torque control (MSR). Riding Modes Pro adds the individually configurable "Dynamic Pro" riding mode.

Which equipment variants are available for the BMW F 450 R?

The BMW F 450 R is offered in four variants: Base, Exclusive, M Sport, and M Sport with Innovation Package. The Exclusive variant adds Shift Assistant Pro and the Sport suspension. M Sport additionally offers Riding Modes Pro and the Snaefell white / M Motorsport color scheme with a white frame and rim stickers in M Motorsport colors. The Innovation Package adds the Easy Ride Clutch to the M Sport variant.