

Technical data sheets BMW Motorrad

Date: 28.10.2020

Status: approved

S 1000 R

Engine

Type	Water/oil-cooled 4-cylinder 4-stroke in-line engine, four valves per cylinder, two overhead camshafts
Bore / stroke	80 mm x 49.7 mm
Capacity	999 cc
Rated output	121 kW (165 PS) at 11,000 rpm
Max. torque	114 Nm at 9,250 rpm
Compression ratio	12.5 :1
Mixture control	Electronic intake pipe injection
Emission control	Regulated three-way catalytic converter

Performance / fuel consumption

Maximum speed	over 200 kph
Fuel consumption per 100 km based on WMTC	6.2 l/100km
CO ₂ emission based on WMTC	144 g/km
Fuel type	Premium unleaded (max. 5% Ethanol, E5) / 98 RON / 93 AKI

Electrical system

Alternator	450 W
Battery	12 V / 8 Ah, maintenance-free

Power transmission

Clutch	Multiplate clutch in oil bath, slipper clutch, self-reinforcing
Gearbox	Six-speed synchromesh gearbox with spur gears
Final drive	525 chain drive, 17/45
Traction control	DTC

Chassis Chassis / brakes

Frame	Aluminium composite bridge frame, partially self-supporting engine
Front wheel location / suspension	Upside-down telescopic fork Ø 45 mm, compression and rebound stage adjustable, adjustable preload
Rear wheel location / suspension	"WSBK" Aluminium swing arm, full floater pro, compression and rebound damping adjustable, adjustable preload
Suspension travel, front / rear	120 mm / 117 mm
Wheelbase	1,450 mm
Castor	96 mm
Steering head angle	65.8°
Wheels	cast aluminium
Rim, front	3.50" x 17"
Rim, rear	6.00" x 17"
Tyre, front	120/70 ZR 17
Tyre, rear (with M wheels)	190/55 ZR 17 (200/55 ZR 17)
Brake, front	Twin disc brakes, diameter 320 mm, floating discs, radial four-piston fixed calipers
Brake, rear	Single disc brake, diameter 220 mm, single-piston floating caliper
ABS	BMW Motorrad Race ABS, partially integral
standard rider safety systems	6-axis-IMU, ABS Pro, DTC, HSC, 3 riding modes (RAIN, ROAD, DYNAMIC)

Dimensions / weights

Seat height (with low / tall seat option)	830 mm (810 / 850 mm)
Inner leg curve (with low / tall seat option)	1,835 mm (1,815 / 1,858 mm)
Usable tank volume	16.5 l
Reserve	approx. 4 l
Length	2,090 mm
Height (excl. mirrors)	1,115 mm
Width excl. panniers (incl. panniers)	812 mm
Dry weight	177 kg
Unladen weight, road ready, fully fuelled 1)	199 kg (with M package incl. M carbon wheels: 194 kg)
Permitted total weight	407 kg
Payload (with standard equipment)	208 kg

Equipment (in parts)

Standard equipment	Full LED lights, 3 riding modes (RAIN, ROAD, DYNAMIC, incl. HSC), 6-axis-IMU, ABS Pro, DTC, adjustable handlebar position, TFT display incl. connectivity
Optional equipment (OE)	DDC suspension, Riding Modes Pro (incl. DYNAMIC PRO, fully configurable incl. wheelie control, HSC Pro, MSR, DBC), Shift Assist Pro, Headlight Pro (iconic DRL/position lights & Adaptive Cornering Lights), Keyless Ride, RDC, E-Call (where available), M package, M carbon and forged wheels, M Lightweight battery, carbon pack, billet pack, and much more
Optional accessories (OA)	panniers, soft bags, carbon fiber fairing parts, billet parts, and much more

Technical data relate to the unladen weight (DIN)

1) According to guideline VO (EU) 168/2013 with all fluids, with standard equipment and fuelled with at least 90% of usable tank volume.