

Technical data sheets BMW Motorrad

Date: 10.08.2021
Status: approved

MY 2023 (0E21)

S 1000 RR

Engine

Type	Water/oil-cooled 4-cylinder 4-stroke in-line engine, four titanium valves per cylinder, BMW ShiftCam
Bore / stroke	80 mm x 49.7 mm
Capacity	999 ccm
Rated output	152 kW (207 hp) at 13,500 rpm
Max. torque	113 Nm at 11,000 rpm
Compression ratio	13.3 : 1
Mixture control	Electronic injection, variable intake pipe
Emission control	Closed-loop 3-way catalytic converters, EU-5 norm

Performance / fuel consumption

Maximum speed	299 km/h
Fuel consumption per 100 km based on WMTC cycle	6.4 l
CO ₂ emission based on WMTC	149 g/km
Fuel type	Unleaded super(premium), octane number 95 - 98 (RON) (knock control; rated output at 98 RON)

Electrical system

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

Power transmission

Clutch	Multiplate clutch in oil bath, anti-hopping clutch, with self-reinforcement
Gearbox	Constant-mesh 6-speed gearbox with straight cut gears
Drive	Chain 525 17/45
Tractioncontrol	DTC

Chassis / brakes

Frame	Bridge-type frame, cast aluminium, load-bearing 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	1,441 mm
Castor	93.9 mm
Steering head angle	66.5°
Wheels	Aluminium cast wheels
Rim, front	3.50" x 17"
Rim, rear	6.00" x 17"
Tyre, front	120/70 ZR 17
Tyre, rear	190/55 ZR 17 (200/55 ZR 17 M wheels)
Brake, front	Twin disc brake, 4-piston fixed caliper, 4.5 mm diameter 320 mm (5 mm M wheels)
Brake, rear	Single disc brake, single piston floating caliper, diameter 220 mm
ABS	BMW Motorrad Race ABS (part-integral), disengageable, modes to select
ABS Pro	ABS Pro settings for RAIN, ROAD, DYNAMIC mode, no ABS Pro in RACE mode

Dimensions / weights

Seat height	824 mm
Inner leg curve	1,827 mm
Usable tank volume	16.5 l
Reserve	approx. 4 l
Length	2,073 mm
Height (excl. mirrors)	1,151 mm
Width (incl. mirrors)	848 mm
Dry weight	175 kg (M Package 173.3 kg) without battery
Unladen weight, road ready, fully fuelled 1)	197 kg (M Package 193.5 kg)
Permitted total weight	407 kg
Payload (with standard equipment)	210 kg

Equipment (in parts)

Standard equipment	BMW Motorrad Race ABS, ABS Pro, 4 riding modes (Rain, Road, Dynamic, Race), DTC, HSC (Hill Start Control), Shift Assist Pro, TFT-Display, LED-Turn Signal, LED-Headlight and Rearlight
Optional equipment (OE)	Riding Mode Pro (+3 modes: Race Pro 1-3, pit-lane-limiter, launchcontrol, DTC +/- Shift, wheelie control- slide controls, HSC Pro, DBC (Dynamic Brake Control), Engine Break. DDC (next generation), heated grips, cruise control, M forged wheels, M Package: M sport seat, M carbon wheels, M light weight battery, M chassis kit with rear height adjustment and swingarm pivot.
Optional accessories (OA)	M Carbon parts M Footrests, M Brake- Clutch lever, Windshields tinted, Windshield bubble, Windshield bubble tinted, three M sport Seat with: low 814 mm or 824 mm or high 849 mm, M Datalogger und M Laptrigger, M Cover Kit, M Calibration Kit, Tank Bag, Rear Bag.

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.