

6. Technical specifications.



HP4 RACE		
Engine		
Capacity	cc	999
Bore/stroke	mm	80/49.7
Output	kW/hp	158/215
at engine speed	rpm	13 900
Torque	Nm	120
at engine speed	rpm	10 000
Type	Water-cooled in-line 4-cylinder engine	
Compression/fuel	13.7-13.9:1/min Super Unleaded, min. octane number 98 (RON)	
Valve/accelerator actuation	DOHC (double overhead camshaft) Valve activation via individual rocker arms	
Valves per cylinder	4	
Ø intake/outlet	mm	33.5/27.2
Throttle valve diameter	mm	48
Electrical system		
Alternator	W	406
Battery	V/Ah	12/5, Li-ion maintenance-free
Headlight	W	-
Starter	kW	0.8
Power transmission - gearbox		
Clutch	Multi-plate anti-hopping wet clutch, mechanically activated	
Gearbox	Constant-mesh 6-speed racing gearbox (EVO) with spur toothing (gear 1, 2, 4, 5, 6 optimised)	
Primary ratio	1.652	
Transmission ratios	I	2.388
	II	2.000
	III	1.727
	IV	1.545
	V	1.400
	VI	1.291
Rear wheel drive	Chain	
Transmission ratio	2.647	
Traction control	DTC 15-level adjustment	
Engine brake	EBR 15-level adjustment	
Suspension		
Frame construction type	Carbon fibre monocoque RTM frame with adjustable steering head angle and swingarm centre of rotation, load-bearing engine	
Front wheel control	Öhlins FGR 300 Superbike World Cup fork, adjustable rebound and compression damping, adjustable spring preload, adjustable Öhlins SD052 steering damper, quick front wheel changing system by means of rotating forklegs with mounted front wheel cover (brake calipers do not have to be dismantled to change wheels)	
Rear wheel control	Aluminium underslung double-sided swingarm, Öhlins TTX 36 GP central spring strut, adjustable rebound and compression damping, adjustable spring preload, spring strut attachment point adjustable at the top (0/3 mm), adjustable spring strut deflection (tension strut length), support surfaces for wheel spacer sleeve on chain tensioners for simple/hands-free wheel mounting, titanium chain tensioner on the outside, aluminium on the inside, CFRP assembly stand mountings on	

		the swingarm
Spring travel, front/rear	mm	130/120
Wheel castor	mm	102.5 (adjustable from 95-112)
Wheelbase	mm	1 440
Steering head angle	°	65.5° (adjustable by 0.0°, +-0.5°, +-1°)
Tension strut		113 mm (variably adjustable +- 5mm)
Swingarm centre of rotation		-3 mm as compared to K46MR3 (adjustable by +-4 mm,+3 mm,+2 mm,+1.0 mm) -> (HP4R designation "-2" corresponds to K46MR3 "-3" = standard)
Swingarm length		604mm
Fork bridge offset		30 mm (adjustable to 26 mm, 28 mm, 32 mm)
Wheels		Carbon fibre wheels incl. firmly fitted wheel spacer sleeves for simple wheel mounting
Wheel size, front/rear		3.50 x 17" / 6.00 x 17"
Tyre, front		120/70 ZR 17 Pirelli Diabolo Superbike Slick SC2
Tyre, rear		200/60 ZR 17 Pirelli Diabolo Superbike Slick SC2
Brake, front		Brembo Racing twin disc brake , T-floated racing brake discs, diameter 320 x 6.75 mm, 4-piston monoblock Superbike World Cup fixed caliper GP4-PR with titanium pistons, Brembo Racing handbrake pump RCS19x18 incl. adjustable Brembo Racing brake lever, Brembo Racing clutch lever (without clutch switch)
Brake, rear		Brembo Racing single disc brake, 4-piston Superbike World Cup fixed caliper with titanium pistons, brake disc diameter 220 x 4.0 mm
Footrest system		Rigid footrest system in milled aluminium, adjustable to eight positions

Dimensions and weights

Seat height at unladen weight		816 mm (lowest position), 831 mm (delivery state), 846 mm (highest position)
Usable fuel tank volume		17.5 l
incl. reserve		approx. 4 l
Dry weight		146 kg
Unladen weight, road ready, fully fuelled 1)		171.4 kg

Equipment (selection)

Standard equipment		BMW Motorrad Race DTC (Dynamic Traction Control) +/-7; EBR (Engine Brake Regulation) +/-7, 4 riding modes (WET, INT, Dry1, Dry2), 2D data recording/stick logger/lap timing/GPS, 2D dashboard, 2D data recording prepared for spring travel sensors / brake pressure sensors, Pit Lane Limiter, Launch Control, adjustable footrest (8 levels), adjustable handlebars (tapering), fork bridge with offset adjustment (variable using accessory kit), seat height adjustment, steering head angle adjustment (variable using accessory kit), swingarm centre of rotation adjustment (variable using accessory kit), HP4 Race Shift Assistant (Up/ Down), shift pattern reversed as delivered, Superbike World Cup button unit, HP Race Brake lever guard, secondary ratio variable using accessory kit (pinion 15, 16, 17 / chain ring 41, 42, 43, 44, 45)
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Relevant figures refer to DIN unladen weight

¹⁾ According to Directive 93/93/EEC with all operating fluids, fuelled with at least 90 % of usable fuel tank volume