



Media Information
16th May 2012

Technical Data BMW M3
25 years of touring car racing.

The following datasheets have been taken without modification from the original press documents published at the time.

BMW M3 Group A (1987): Press kit BMW Motorsport 1987, 04/1987.

BMW M3 Group A, N, M3 GT, M3 GTR (1993): Press kit BMW Motorsport 1993, 03/1993.

BMW M3 GTR (2004): Press kit 24h-Race-Nürburgring 2004, 06/2004.

	COMPARISON OF TECHNICAL DATA BMW M3 ROAD-GOING AND GROUP A VERSION		M3	M3 Group A
Body Dimensions and weights	No of doors		2	2
	No of seats		4	1
	Length/Width/Height (empty)	mm	4345/1680/1370	4355/1880/1330
	Wheelbase	mm	2565*	2565.5
	Track, front	mm	1412*	1412
	rear	mm	1424	1424
	Turning circle	m	11.1	-
	Fuel tank capacity/range	l/km	70/840	110
	Unladen weight	kg	1200	960 min.
	Max. load	kg	400	-
Engine	Max. permissible weight	kg	1600	-
	Max. trailer load			-
	braked max. gradient 12%	kg	-	-
	unbraked	kg	-	-
	Max. roof load	kg	75	-
	Max. trailer nose weight	kg	-	-
	Luggage capacity/VDA test	l	480/420 ¹⁾	-
	Layout		Inline	Inline
	No. of cylinders		4	4
	Mixture preparation		ML Motronic	Motronic
Chassis/power transmission			4 valves	4 valves
	Displacement, effective	cm ³	2302	2332
	Bore/stroke	mm	93.4/84	94/84
	Compression/fuel grade		10.5/S	12.0/S
	Max. output	kW/PS	147/200	approx.
	- at engine speed	min ⁻¹	6750	220/300
	Max. torque	Nm	240	8000
	- at engine speed	min ⁻¹	4750	270
	Battery	Ah	66 ¹⁾	26
	Alternator	A/W	90/1260	65/910
Performance characteristics	Front suspension		Single-joint spring strut axle with displaced camber; compensation of transverse forces; anti-squat reduction; small, positive steering roll radius	Single-joint spring strut axle; spring struts made of aluminium with adjustable spring plates for vehicle height adjustment; wheel mounting with central lock nut; adjustable anti-roll bar
	Rear suspension		Independent suspension at semi-trailing arms (sweep angle degrees); separate springs and dampers; anti-dive; sporty chassis	Independent suspension at reinforced semi-trailing arms with joint bearings and camber and toe-in adjustment; adjustable spring struts for vehicle height adjustment; wheel mounting with central lock nut
	Brakes front		Single-piston swing-calliper disc brakes, vented, ABS	4-piston alloy swing calliper, inner-vented brake disc, 32 mm thick, 332 mm diameter
	rear		Single-piston swing-calliper disc brakes with integrated drum hand brake, ABS	4-piston alloy swing calliper, inner-vented brake disc, 20.7 mm thick, 280 mm diameter
	Steering		Rack-and-pinion/Servo 19.6:1	2 main brake cylinders with balance bars, brake force distribution adjustable during motion, adjustable hand brake
	Final drive ratio		3.25:1	Rack-and-pinion 17:1
	Gear ratios	I II III IV V R	3.72:1 2.40:1 1.77:1 1.26:1 1.00:1 4.23:1	from 3.25:1 to 5.28:1 2.337:1 1.681:1 1.358:1 1.150:1 1.000:1
	Tyres		205/55 VR	235/590-16 or 245/610-17
	Wheel		15 7 J x	9x16 or 9x17/LM three-part
	Power-weight ratio	kg/kW	8.2	4.4
	Torque-weight ratio	kg/Nm	5.0	3.5
	Output per litre	kW/l	63.9	94.2
	Torque per litre	Nm/l	104.3	117.8
	Acceleration 0-100 km/h	s	6.7	4.6 with rear axle ratio 4.44:1
	0-1000 m	s	27.	-
	in 4th gear 80-120 km/h	s	2	-
	Top speed	km/h	7.1 235	281 with rear axle ratio 3.25:1
1) Battery in the boot from 1.4.1987				

	SPECIFICATIONS BMW RACING VEHICLES		318i Grp A FISA-Class 2	M3 Grp N	M3 GT	M3 GTR
Body Dimensions and weights	No of doors		4	2	2	2
	No of seats		1	1	1	1
	Length/width/height (unladen)	mm	4433/1698/1270	4433/1710/1300	Specifications not yet final	Specifications not yet final
	Wheelbase	mm	2700	2700	2705	2705
	Track, front	mm	1470	1430		
	Track, rear	mm	1510	1451		
	Turning circle	m	10.4			
	Fuel tank capacity/range ¹⁾	l/km	90	65	65	40
	Unladen weight	kg	1050	Following homologation	ca. 1400	1300
	Max load	kg				Acc. to the rules
Engine	Max permissible weight	kg				Acc. to the rules
	Max trailer load ²⁾					
	– braked, max gradient 12%	kg				
	– unbraked	kg				
	Max roof load	kg	–	–	–	–
	Max trailer nose weight	kg	–	–	–	–
	Luggage capacity, VDA test	l	–	–	–	–
	Drag coefficient/front area	Cd x A	0.3 x 1.93	0.32 x 1.93	–	–
	Layout		Inline	Inline	Inline	Inline
	No of cylinders/valves		4/4	6/4	6/4	6/4
Chassis/power transmission	Mixture preparation		BMW Ecu	Digital Motor Electronics	Digital Motor Electronics	Digital Motor Electronics
	Displacement, effective	cc	1996	2990	2990	3018
	Bore/stroke	mm	90.6/77.4	86/85.8	86/85.8	86.4/85.8
	Compression ratio/fuel grade	:1	12.0	10.8	10.8	12.0
	Max output	kW/bhp	200/270	210/286	210/286	239/325
	– at engine speed	rpm	8300	7000	7000	7000
	Max torque	Nm	240	320	320	340
	– at engine speed	rpm	7000	3600	3600	5500
	Battery/location	Ah	65/luggage comp			
	Alternator	A/W	90/1260			
Chassis/power transmission	Front suspension		Single-joint spring strut axle with displaced camber; small, positive steeringroll radius; compensation of transverse forces;		Reinforced link with Unibal joints	
	Rear suspension		Central-arm axle with longitudinal control arm and double track control arm;		Reinforced link with Unibal joints	
	Brakes, front		Swing-caliper disc brakes; vented, ABS (not 318i)		Fixed-caliper disc brake; vented, ABS	
	rear		Swing-caliper disc brakes, vented, ABS (not 318i)			
	Steering/overall ratio		Rack-and-pinion, 16.8 : 1	(M3: variable)	Rack-and-pinion	
			Power-assisted (not 318i)		Power-assisted	
	Gear ratios				Variants** A B C 3.064 3.717 4.20 2.218 2.403 2.49 1.671 1.766 1.66 1.357 1.263 1.24 1.444 1.000 1.00 1.000 3.89 3.89 3.89	1 manual-transmission type of the GT range, with up to 2 additional gear ratios
	Final drive ratio		3.91 to 5.44	3.15	3.33 5.44 3.64 3.91 4.09 4.36 4.67 4.75 5.13	max. 3 rear-axle ratios of the GT range
	Tyres		210/640-18	235/40 ZR 17	245/40 ZR 18	max. tire with 12" acc. to the rules
	Wheels		8 J x 18	7.5 J x 17	9 J x 18	
	Power-weight ratio	kg/kW	5.2	7.0	6.6	5.4
	Torque-weight ratio	kg/Nm	4.4	4.6	4.4	3.8
	Output per litre	kW/l	101.0	71.0	71.0	79.2
	Torque per litre	Nm/l	121.0	107.0	107.0	112.7
<div> <div> () Figures in brackets: with automatic transmission * 75 kg (165 lb) in conjunction with special rear axle springs for towing a trailer ** Manual-transmission variants A = Hollinger B = 265/6.77 C = C-transmission </div> <div> 1) With standard gearbox, related to average ECE test consumption 2) May be increased under certain conditions 3) Permissible roof load with hardtop: 30 kg 4) Cut off electronicall (Not all footnotes are used on each data sheet) </div> </div>						

Vehicle specifications BMW M3 GTR.

Length:	4,612 mm
Width:	approx. 1,900 mm maximum as per regulations
Height:	approx. 1,320 –1,330 mm
Wheelbase:	2,731 mm
Track:	1,609 mm front, 1,602 mm rear
Weight:	1,250 kg (minimum weight as per regulations)
Tank capacity:	120 litres (maximum capacity as per regulations)
Chassis/Body:	unitary construction steel body with welded safety cell of highly rigid precision steel tubing; front and rear aprons, bonnet, doors, front wings, rear wing extensions, rear wing, rear cover, roof outer layer and rear diffuser made of carbon-reinforced plastic; partially smooth underbody made of sheet steel, safety fuel tank below the luggage compartment made of carbon fibre-reinforced plastic sandwich, pneumatic four-stamp rapid jack system
Transmission:	pulled triple-disc carbon-fibre clutch; straight-cogged six-speed manual gearbox with oil/air cooling at rear; step-up differential with viscous lock and mechanical spreader and multi-plate differential; steel drive shafts with tripod links
Front axle:	single-pivot strut axle with friction-reduced strut bearings; four-position adjustable shock absorbers; welded hub carriers in steel design; anti-roll bar with adjustment rods
Rear axle:	central link-arm axle with welded longitudinal link in steel and double wishbone; four-position adjustable shock absorbers; anti-roll bar with adjustment rods
Brakes:	racing ABS system, ContiTeves
Front:	six-piston monoblock aluminium callipers; inner-vented grey cast-iron brake discs of 380 mm diameter
Rear:	four-piston monoblock aluminium callipers; inner-vented grey cast-iron disc brakes of 313 mm diameter;
Steering:	rack-and-pinion steering with electro-hydraulic power assistance
Wheels:	forged aluminium rims from BBS with integral drive pegs, diameter 18 inches, width 11 inches
Tyres:	Michelin racing tyres sizes 27/65-18 (front) and 27/68-18 (rear)