

## CAR TEST

# BMW 635 CSI COUPÉ, AUTOMATIC

There is another world in motoring which few of us are ever privileged to experience — a fantasy world of ultra-expensive motor vehicles which are intended only for the very wealthy.

BMW, of Germany, is one of the motor manufacturers which features strongly in this world of ultra-motoring, with some of the most costly cars available to South African motorists. Its top Seven Series models, for instance, are now priced well over the R40 000 mark, and even these will be eclipsed by the

**A fantasy car at a fabulous price—yet it's a sporting and down-to-earth Bee-Em on the road!**

specially-developed BMW 745i which was announced recently.

Yet unchallenged leadership in the top BMW range must go to the exclusive BMW 635 CSI — a stately and sump-

tuous coupé model which is available here only to special order, at a price of R65 000 (including import duty, but without General Sales Tax).

### CONNOISSEUR'S CAR

The 635 CSI is a beautifully-styled, slim-pillar hardtop coupé, a tasteful blend of ultra-luxury car and blue-blooded sports car. It shares much of BMW's electronic wizardry as featured in top Five Series and Seven Series sedan models, with a standard of comfort,

roadability and performance which is all its own.

To enhance its aerodynamics, it has a slender front airdam and a trunk lid spoiler — though it is available without these, as an option. It has dual, high-penetration headlights with a two-stage dipped beam reflector to provide improved low-beam intensity and spread, plus foglights front and rear. Even the bumpers are styled for minimum drag, and wrap round for full protection.

Extra-low-profile high-speed radials are fitted on light-alloy rims.

An electrically-operated sunroof is an option (fitted on the test car) which is quiet-operating and efficient, and the twin door mirrors have a demisting heater in addition to electrical adjustment.

### DETAILED ELECTRONICS

The instruments and controls are quite straightforward: tachometer, speedometer, temperature and fuel gauges in the binnacle in front of the driver, a thick-rimmed, leather-bound steering wheel

operating the well-rated power steering, and (in the case of the automatic-transmission test car) a T-handle transmission selector.

We will not go into fine detail on the multiple electronic information systems

### KEY FIGURES

Maximum speed . . . . .	211,1 km/h
1 km sprint . . . . .	29,4 seconds
Terminal speed . . . . .	178,0 km/h
Fuel tank capacity . . . . .	70 litres
Litres/100 km at 80 (ECE) . . . . .	7,85
Optimum fuel range at 80 . . . . .	891 km
*Fuel Index . . . . .	10,21
Engine revs per km . . . . .	1 560
National list price . . . . .	R65 000
(*Consumption at 80, plus 30% )	

incorporated in the fascia, except to mention that these include a strip-light service interval indicator, the multi-function BMW on-board computer with LED digital clock, the check control unit for an instantaneous monitoring of operating functions such as engine oil

and coolant levels, fuel consumption indicator, automatically-regulated air-conditioning and heating systems, stereo radio/tape deck with balance control, and pilot lights covering such functions as brake fluid level, engine oil pressure and ABS anti-lock braking system. There is also a very positive-acting cruise control — one of the best we have experienced.

One small failing which we recorded was that on the right-hand-drive model, the stalk switches on the steering columns interfere with access to the ignition switch: we found that the driver's arm tended to knock the windscreen wipers and washers on when reaching for the ignition switch.

### DRIVING COMFORT

This is a most comfortable vehicle to sit in and to drive. The driving seat has a wide range of adjustment to suit the individual, and the steering column is adjustable for reach — which is much more important than rake adjustment.

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There are such convenience features as twin dome lights, an illuminated vanity mirror, and power windows all round.

The coupé is tailored as a four-seater, with head restraints at all four seats. The front seat backrests fall well forward to allow clear access to the rear seats through the wide, coupé-style doors. While there is a good standard of headroom in the rear seats, legroom is limited — particularly if the occupants are long-legged adults.

The doors are large, but not heavy, and we found them easy to work with and to close.

#### SOPHISTICATED ENGINE

The engine is one of the world's most sophisticated six-cylinder units — a 3,5-litre overhead-cam motor with the DES (digital electronic) fuel injection system, which applies an automatic cut-off of fuel supply when coasting, extending down to 1 000 revs.

This engine has 12 balance weights for turbine-smooth operation, and we found on the test car that it runs easily up to 5 900 revs, at which point a safety governor limits its exuberance.

The automatic transmission is a ZF three-speed with a high level of efficiency — now being joined in production by a new 4-speed unit. It is teamed with a 3,077 to 1 final drive ratio to give reasonably long-legged gearing (37,8 km/h per 1 000 revs) without detracting from pulling power.

#### ROAD PERFORMANCE

This is a fairly big car, nearly 4,8 metres long and with a mass of just over 1,4 tons. Yet in spite of this it makes a deceptively-fast start from rest: there is no wheelspin, but the transmission reacts firmly and gets the car to 60 km/h in 4,4 seconds. Once moving, it whirls away to 80 in 6,1 seconds and 100 in nine seconds, covering the first kilometre inside 30 seconds.

There is abundant power available in road use. For instance, the coupé will accelerate from 60 to 80 km/h inside two seconds, just by flooring the pedal, and it will climb a 1-in-7 gradient even at cruising speeds.

We did a full measurement of maximum speed both ways on a level road, registering an average of 211,1 km/h (131,2 m-p-h) with the speedometer reading 223. This was confirmed by the accurate tachometer, which read just over 5 650 at the maximum and showed a minimal slip loss in the transmission. With air-conditioning operating, incidentally, maximum speed drops by about four km/h.

#### ECONOMY, SOUND, BRAKING

We have based our fuel consumption tables and graphs on the official ECE figures which are mandatory in Europe, and these show remarkable capability for a big-engined automatic:

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The 635 CSI retains a distinct BMW family appearance, particularly from the front or rear, with spoilers marking the biggest difference.

a steady 7,85 litres/100 km at 80, and 9,01 at 100. As with any powerful automatic, though, there is a penalty for heavy-footed driving, and the ECE lists 14,9 litres/100 km as the urban-cycle result for this car.

The 635 CSI is magnificently-quiet on a good road surface, registering only 74,5 decibels inside the car at a steady 100. This rises to 81,5 with a window open, and 83,0 on a coarse road surface — which is rather high for a top-quality car.

The brakes are superb: responsive, well-balanced and consistent, stopping the car repeatedly from a true 100 km/h (108 indicated) in between 3,3 and 3,4 seconds.

#### SMOOTH RIDE

BMW suspensions are among the best in the world, and the CSI has a full measure of this blue-blooded, all-independent system which makes light of any road surface. This is not the sort of car you would normally throw around on rough

roads, but you could do so in full comfort and safety — it's built to take it.

Under more normal road conditions it is gentle and refined, handling easily and with a fair standard of inherent sportiness and load-capability. It is particularly steady at cruising speeds, and not deflected by gusting side winds.

There is a mild tendency to develop tyre whine on a smooth road surface — though this does not detract from a road-hugging grip.

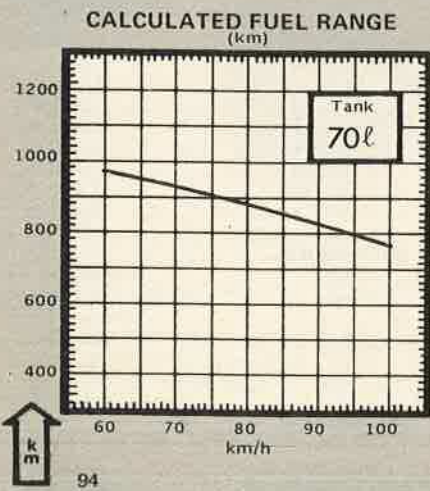
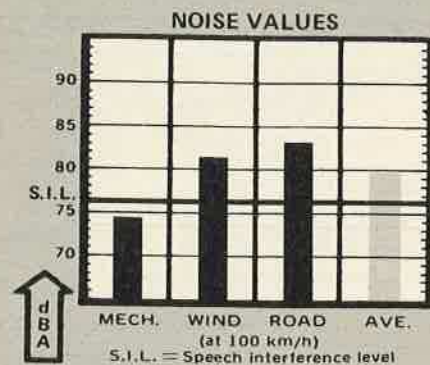
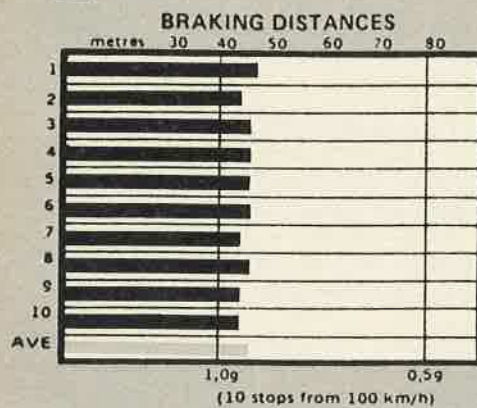
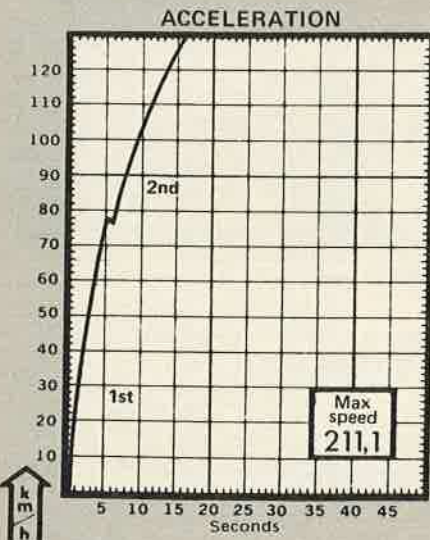
#### TEST SUMMARY

This very special Bee-Em really belongs with castles and mansions and country estates. With its considerable price inflated by import duty in South Africa, it is well outside the reach of the ordinary motorist.

Yet as a road car, it has that common touch of outstanding comfort, drivability and good manners which usually characterise BMW cars, and it is sure to retain its status as a collector's item as the years go by. (Graphs overleaf) ●

#### SPECIFICATIONS

<b>ENGINE:</b>	Tyre pressures (front) . . . . .180 to 220 kPa
Cylinders . . . . .6 in line	Tyre pressures (rear) . . . . .200 to 250 kPa
Fuel supply . . . . .Bosch L-Jetronic injection	<b>BRAKES:</b>
Bore/stroke . . . . .82,0/86,0 mm	Front . . . . .ventilated discs
Cubic capacity . . . . .3 430 cm <sup>3</sup>	Rear . . . . .discs
Compression ratio . . . . .10,0 to 1	Pressure regulation . . . . .dual circuits
Valve gear . . . . .o-h-v, single o-h-c	Boosting . . . . .vacuum servo
Ignition . . . . .digital electronic system	Handbrake position . . . . .between front seats
Main bearings . . . . .seven	<b>STEERING:</b>
Fuel requirement . . . . .98-octane Coast, 93-octane Reef	Type . . . . .ZF ball and nut, power-assisted
Cooling . . . . .9-bladed fan with viscous coupling; electric auxiliary fan; oil cooler	Lock to lock . . . . .3,5 turns
<b>ENGINE OUTPUT:</b>	Turning circle . . . . .10,1 metres
Max. power I.S.O. (kW) . . . . .160	<b>MEASUREMENTS:</b>
Power peak (r/min) . . . . .5 200	Length overall . . . . .4,755 m
Max. usable r/min . . . . .6 000	Width overall . . . . .1,725 m
Max. torque (N.m) . . . . .310	Height overall . . . . .1,365 m
Torque peak (r/min) . . . . .4 000	Wheelbase . . . . .2,630 m
<b>TRANSMISSION:</b>	Front track . . . . .1,430 m
Forward speeds . . . . .three, ZF 3-HP-22 automatic	Rear track . . . . .1,460 m
Selector . . . . .console T-handle	Ground clearance . . . . .0,095 m
Low gear . . . . .2,478 to 1	Licensing mass . . . . .1 430 kg
2nd gear . . . . .1,478 to 1	<b>SUSPENSION:</b>
Top gear . . . . .direct	Front . . . . .independent
Reverse gear . . . . .2,090 to 1	Type . . . . .anti-dive coil struts, stabiliser bar
Final drive . . . . .3,077 to 1	Rear . . . . .independent
Drive wheels . . . . .rear	Type . . . . .coil struts, semi-trailing arms, stabiliser bar, dual-jointed half-axles
<b>WHEELS AND TYRES:</b>	<b>CAPACITIES:</b>
Road wheels . . . . .forged alloy	Seating . . . . .4/5
Rim width . . . . .6,5 inches	Fuel tank . . . . .70 litres
Tyres . . . . .220/55 VR 14 steel belt radials	Luggage trunk . . . . .410 dm <sup>3</sup>



## test BMW 635 CSi automatic

### PERFORMANCE

**MAKE AND MODEL:**  
 Make: BMW  
 Model: 635 CSi automatic

**PERFORMANCE FACTORS:**  
 Power/mass (W/kg) net: 111.9  
 Frontal area (m<sup>2</sup>): 2.35  
 km/h per 1 000 r/min (top): 37.8

**INTERIOR NOISE LEVELS:**

	Mech.	Wind	Road
Idling	61.0	—	—
60	68.5	—	—
80	72.0	77.5	79.5
100	74.5	81.5	83.0
Average dBA at 100	79.7	—	—

**ACCELERATION (seconds):**

0-60	4.4
0-80	6.1
0-100	9.0
1 km sprint	29.4

**OVERTAKING ACCELERATION (A/T):**

40-60	1.8
60-80	1.8
80-100	2.9

**MAXIMUM SPEED (km/h):**

True speed	211.1			
Speedometer reading	223			
Calibration:				
Indicated: 60	70	80	90	100
True speed: 52	62	72	82	92

**FUEL CONSUMPTION (litres/100 km; based on official ECE figures):**

60	7.16
70	7.46
80	7.85
90	8.40
100	9.01

**BRAKING TEST:**

From 100 km/h	
Best stop	3.3
Worst stop	3.5
Average	3.36

**GRADIENTS IN GEARS:**

Low gear	1 in 2.7
2nd gear	1 in 4.4
Top gear	1 in 6.5

**GEARED SPEEDS (km/h):**

Low gear	79.2
2nd gear	132.8
Top gear	196.3

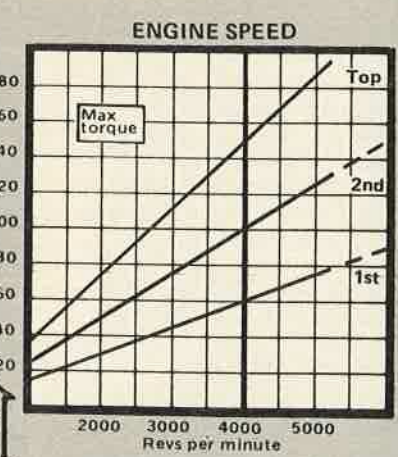
(Calculated at engine power-peak — 5 200 r/min)

**TEST CONDITIONS:**

Altitude	at sea level
Weather	fine and hot
Fuel used	.98 octane
Test car's odometer	5 743 km

**WARRANTY:**  
12 months, unlimited distance.

**TEST CAR FROM:**  
BMW South Africa, Rosslyn, Transvaal.

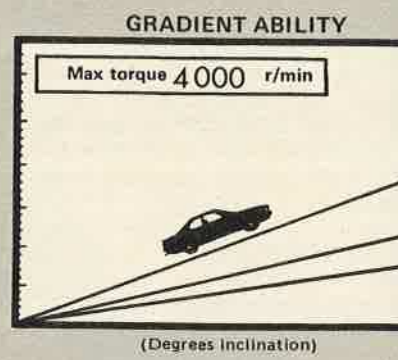


### IMPERIAL DATA

**ACCELERATION (seconds):**  
0-60 m-p-h: 8.5

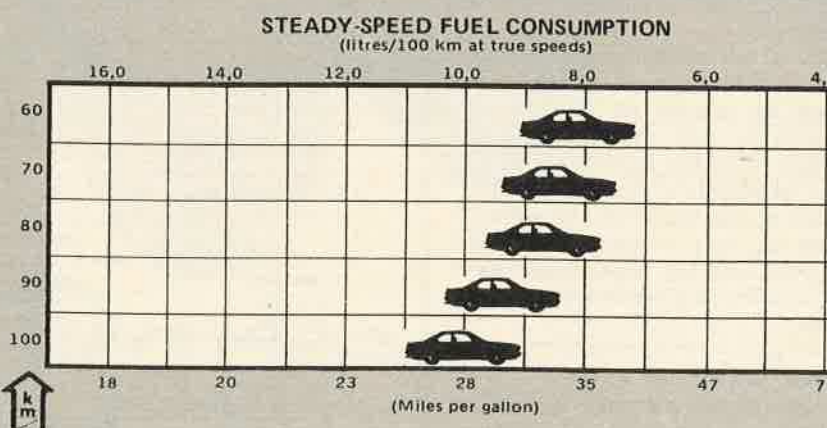
**MAXIMUM SPEED (m-p-h):**  
True speed: 131.2

**FUEL ECONOMY (m-p-g) (ECE):**  
50 m-p-h: 35.8  
60 m-p-h: 32.2



### CRUISING AT 100

Mech. noise level	74.5 dBA
0-100 through gears	9.1 seconds
Litres/100 km at 100 (ECE)	9.01
Optimum fuel range at 100	777 km
Braking from 100	3.36 seconds
Maximum gradient (top)	1 in 6.9
Speedometer error	8% over
Speedo at true 100	108
Tachometer error	negligible
Odometer error	2.6% over
Engine r/min at 100	2 649



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