



BMW i technology for the luxury class:

The new BMW 740e iPerformance, the new BMW 740Le iPerformance, the new BMW 740Le xDrive iPerformance. (At a glance)

The BMW eDrive drive system technology developed for BMW i cars has arrived in the new BMW 7 Series model range in the shape of three plug-in hybrid luxury sedans. The trio source their power from the myriad talents of a latest-generation four-cylinder petrol engine with BMW TwinPower Turbo technology and an electric motor. Together, they deliver a system output of 240 kW/326 hp. The new BMW 740e iPerformance with standard wheelbase and the new BMW 740Le iPerformance with long wheelbase capture the imagination with supreme dynamics, yet also record average petrol consumption of 2.2 – 2.0 litres per 100 kilometres / 128.4 – 141.2 mpg imp and CO₂ emissions of 50 – 45 grams per kilometre (BMW 740Le iPerformance: 51 – 45 g/km). In the new BMW 740Le xDrive iPerformance (petrol consumption combined: 2.5 – 2.1 l/100 km [113 – 134.5 mpg imp]; CO₂ emissions combined: 56 – 49 g/km), intelligent all-wheel drive distributes the combined power of the combustion engine and electric motor permanently and as required between the front and rear wheels.

The plug-in hybrid variants of the new BMW 7 Series allow top-level driving pleasure, long-distance comfort and luxury to be experienced in combination with all-electric, locally emission-free mobility as well. The BMW iPerformance Automobiles represent the most rigorous implementation yet of Efficient Dynamics in vehicles from the BMW brand. Both BMW eDrive and the body structure with Carbon Core are rooted in know-how from BMW i. When it comes to charging the high-voltage battery, customers benefit from innovative products and services originally developed for BMW i. The BMW 740e iPerformance, BMW 740Le iPerformance and BMW 740Le xDrive iPerformance can also be specified as an option with anti-dazzle BMW Laserlight, which celebrated its world premiere in the BMW i8 plug-in hybrid sports car.

Intelligent energy management optimises the interplay of the combustion engine and electric motor. The electric boost function provides a noticeable increase in dynamic vigour – expressed most prominently by the powertrain's instantaneous responses – and combines with enhanced efficiency courtesy of the electric assist function and the opportunity to drive through town and cross-country on electric power only to create a unique symbiosis of driving

pleasure and sustainability. The maximum electric range, as per the EU test cycle for plug-in hybrid vehicles, is 44 – 48 kilometres / 27 – 30 miles for the BMW 740e iPerformance and BMW 740Le iPerformance, or 41 – 45 kilometres / 25 – 28 miles for the BMW 740Le xDrive iPerformance (figures may vary depending on the tyre format specified).

The best of two worlds: BMW eDrive and BMW TwinPower Turbo technology.

The combustion engine with BMW TwinPower Turbo technology employed by the plug-in hybrid variants of the new BMW 7 Series is a member of the new Efficient Dynamics engine family. Developing maximum output of 190 kW/258 hp, it is the most powerful four-cylinder engine ever fitted in a series-produced BMW. Instantaneous power delivery and peak torque of 400 Newton metres (295 lb-ft) – on tap across a wide rev range (1,550 – 4,400 rpm) – imbue the 2.0-litre unit with vivaciously sporty yet also poised and authoritative performance. In addition, the new engine displays outstanding refinement.

The electric drive system, based on the principle of a permanently excited synchronous motor, boasts exceptionally high power density with a maximum output of 83 kW/113 hp. As is characteristic for electric drive systems, it serves up its peak torque of 250 Newton metres (184 lb-ft) from the word go. The boost effect for the combustion engine provides the driver with thrillingly instantaneous responses. Furthermore, the electric motor takes on the role of a generator which – depending on the hybrid function selected – is powered either by recuperating braking energy or by efficiently raising the engine's load points. It then feeds the energy it generates into the high-voltage battery.

The electric motor is fully integrated into the eight-speed Steptronic transmission. This ensures that pure-electric driving, the dynamics-enhancing electric boost function and the recuperation of braking energy are all extremely efficient. The eight-speed Steptronic transmission has outstanding internal efficiency, top-class shift dynamics and shift comfort, and a compact construction. Gearshift paddles on the steering wheel are available as an option, enabling the driver to make manual gear selections with exceptional swiftness and the greatest of ease.

Working together intelligently, the combustion engine and electric drive system bring a system output of 240 kW/326 hp and a combined peak torque of 500 Newton metres (369 lb-ft) to the table. Immediate response to every movement of the accelerator and sustained delivery of dynamic power allow the BMW 740e iPerformance to dash from 0 to 100 km/h (62 mph) in

5.4 seconds and the BMW 740Le iPerformance to complete the same sprint in 5.5 seconds.

The cars' sporty driving characteristics are accompanied by extraordinarily low petrol consumption and emissions. The BMW 740e iPerformance and BMW 740Le iPerformance both record combined petrol consumption of 2.2 – 2.0 litres per 100 kilometres (128.4 – 141.2 mpg imp). The CO₂ emissions associated with petrol consumption are 50 – 45 grams per kilometre (figures as calculated in the EU test cycle for plug-in hybrid vehicles, may vary depending on the tyre format specified). The exceptional efficiency of the BMW eDrive technology developed using know-how from BMW i is revealed once again in all-electric, locally emission-free driving. The electric power consumption of the plug-in hybrid luxury sedans, as calculated in the EU test cycle, stands at 13.3 – 12.5 kWh per 100 kilometres for the BMW 740e iPerformance and 13.3 – 12.6 kWh per 100 kilometres for the BMW 740Le iPerformance (figures may vary depending on the tyre format specified).

BMW 740Le xDrive iPerformance: permanent all-wheel drive also applies to all-electric driving.

The BMW 740Le xDrive iPerformance follows in the tyre tracks of the BMW X5 xDrive40e iPerformance Sports Activity Vehicle as the brand's second model to distribute its power permanently to all four wheels in pure-electric driving, when the combustion engine cuts in and when both drive systems are in use at the same time. The intelligent all-wheel-drive system ensures supreme traction, optimised directional stability and enhanced agility through enthusiastically taken corners in all weather and road conditions.

Perfectly executed power distribution between the front and rear wheels gives the BMW 740Le xDrive iPerformance extremely dynamic accelerative ability, with the journey from rest to 100 km/h (62 mph) completed in 5.3 seconds. Yet the petrol consumption of the BMW 740Le xDrive iPerformance is just 2.5 – 2.1 litres per 100 kilometres (113 – 134.5 mpg imp) combined, while the associated CO₂ emissions are 56 – 49 grams per kilometre (figures as calculated in the EU test cycle for plug-in hybrid vehicles, may vary depending on the tyre format specified). The combined electric power consumption of the BMW 740Le xDrive iPerformance in the EU test cycle comes in at between 13.9 and 13.2 kWh per 100 kilometres (figures may vary depending on the tyre format specified).

eDrive button allows powertrain control to be configured as desired.

The driver can use the eDrive button on the centre console to change how the plug-in hybrid drive system operates. In the AUTO eDRIVE hybrid

function, intelligent energy management ensures the combustion engine and electric motor work together with maximum efficiency and to dynamically optimised effect. The operating strategy defaults to all-electric mode at low and moderate speeds to utilise the advantages of locally emission-free mobility as widely as possible. The combustion engine only joins the fray at a speed of around 80 km/h (50 mph) or under heavy throttle applications.

The driver can switch to the MAX eDRIVE pure-electric mode at the touch of a button. In this setting the car is powered exclusively by the electric motor, although the combustion engine can be brought into play at any time by pushing the accelerator into kickdown. In the MAX eDRIVE setting, the BMW iPerformance variants of the new BMW 7 Series have a pure-electric top speed of 140 km/h (87 mph).

The Battery Control setting allows the charge of the high-voltage battery to be set manually. The driver can input a target value between 30 and 100 per cent of maximum charge, which is then available for pure-electric driving later in the journey. For example, electric power can be held back or even increased while on the motorway so it can be used subsequently for locally emission-free driving in town.

Driving Experience Control switch with ADAPTIVE mode, clearly noticeable differentiation between SPORT, COMFORT and ECO PRO mode.

The plug-in hybrid variants of the new BMW 7 Series are also equipped as standard with the newly designed Driving Experience Control switch on the centre console. At the touch of a button, the driver can activate a vehicle setting that optimises dynamics, comfort or efficiency. The range of characters encompassed by ECO PRO, COMFORT and SPORT modes are even more clearly defined than with conventionally powered vehicles.

Beyond this, the Driving Experience Control switch offers the option of selecting ADAPTIVE mode. In this setting, the car's responses adapt noticeably to the driver's style and route profile.

High-voltage lithium-ion battery: developed specifically for the models at hand, integrated with space-saving skill.

The high-voltage lithium-ion battery has a gross capacity of 9.2 kWh and net capacity of 7.4 kWh. It is accommodated underneath the rear seat bench in a space-saving position that also provides optimum crash safety. The BMW iPerformance variants of the new BMW 7 Series therefore also benefit from a level surface in the luggage compartment, which offers a capacity of

420 litres. The stowage volume and practicality of the load area set the benchmark in the luxury plug-in hybrid sedan segment.

The energy flow between the high-voltage battery, electric motor and charger is controlled by power electronics likewise developed specifically for these models. The power electronics also regulate the supply of energy from the high-voltage battery to the 12V onboard electrical system via a voltage transformer.

Simple, hassle-free and flexible charging thanks to innovative products and services von BMW 360° ELECTRIC.

The high-voltage battery can be topped up with energy from any domestic power socket, a Wallbox designed for higher currents or public charging stations. The battery can be fully charged in under four hours from a domestic power socket and in under three hours from a BMW i Wallbox. Added to which, BMW 360° ELECTRIC includes the ChargeNow service, which grants straightforward access to partner charging stations and can also be used for the convenient billing of monthly energy costs.

Standard specification includes auxiliary air conditioning.

The high level of standard specification for the BMW 740e iPerformance, BMW 740Le iPerformance and BMW 740Le xDrive iPerformance includes LED headlights, the BMW Display Key, the ConnectedDrive navigation package, smartphone integration with inductive charging facility for the phone battery, and an iDrive operating system expanded to include a touchscreen function for the Control Display and the globally unique BMW gesture control feature. Customers can also look forward to auxiliary heating and air conditioning, which allow them to prepare the car's interior temperature in advance. The heating and air conditioning system of the plug-in hybrid models is supplied with energy from the high-voltage battery. When the car's battery is being charged, the auxiliary air conditioning function is powered by the mains supply.

The charger connection for the high-voltage battery can be found under the flap in the left-hand front side panel. The high-set position of the connection makes the charging process easier. Standard equipment includes a charging cable for use with a domestic power socket, which can be stored in a bag in the boot area to save space. Inside the BMW 740e iPerformance, BMW 740Le iPerformance and BMW 740Le xDrive iPerformance, the most prominent hybrid-specific features include – in addition to the eDrive button – special graphic displays in the instrument cluster and Control Display. On the outside, the transfer of technology from BMW i is flagged up by “eDrive”

badges on the C-pillars, the BMW i logo on the front side panels (left and right), BMW kidney grille bars in BMW i Blue and blue hub covers.

Exceptional efficiency coupled with driving pleasure, long-distance comfort and made-to-measure luxury.

The iPerformance variants of the BMW 7 Series model range bring together exceptional efficiency and a form of luxurious driving pleasure and long-distance comfort that speaks to both the present and the future. Both the front and rear seats can be specified as an option with comfort seats, active seat ventilation, a massage function with Vitality Programme and the Heat Comfort package. Maximising personal wellbeing in the rear compartment of the BMW 740Le iPerformance and BMW 740Le xDrive iPerformance, meanwhile, is the Executive Lounge option. Moreover, the Sky Lounge Panorama glass roof is also available for these models.

The selection of driver assistance systems includes the new-generation BMW Head-Up Display as well as the Parking Assistant, Driving Assistant, Driving Assistant Plus and Surround View systems. The iPerformance variants of the new BMW 7 Series can also be ordered as an option with the M Sport package, Pure Excellence exterior design and interior design packages and BMW Individual Design Composition.

Flexible and efficient production of electric drive systems in model-specific configurations.

The BMW Group uses the knowledge gained in the development of BMW i cars for the production of its own electric motors and high-voltage batteries. BMW eDrive technology is also employed in the BMW iPerformance models. The company's stand-out expertise in the field of electric drive systems is reflected not only in the exceptional performance of the electric motors and high-voltage batteries, but also in efficient production methods. An intelligent modular system for eDrive technology and a flexible production concept enable the BMW Group to respond quickly and precisely to customer requirements the world over.

Specifications.

BMW 740e iPerformance, BMW 740Le iPerformance.



		BMW 740e iPerformance	BMW 740Le iPerformance
Body			
No of doors/seats		4 / 5	4 / 5
Length/width/height ¹⁾ (unladen)	mm	5098 / 1902 / 1467	5238 / 1902 / 1479
Wheelbase	mm	3070	3210
Track, front/rear	mm	1617 / 1646	1617 / 1646
Ground clearance	mm	135	135
Turning circle	m	12.3	12.8
Fuel tank capacity	approx ltr	46	46
Engine oil ²⁾	ltr	5.25	5.25
Weight, unladen, to DIN/EU	kg	1900 / 1975	1940 / 2015
Max load to DIN	kg	685	660
Max permissible weight	kg	2585	2600
Max axle load, front/rear	kg	1140 / 1470	1160 / 1475
Max roofload/towbar download	kg	100 / –	100 / –
Luggage comp capacity	ltr	420	420
Air resistance	c _d x A	0.25 x 2.41	0.25 x 2.42
Drive system			
Drive concept		Full hybrid drive, torque vectoring to rear wheels from one or both units	
System output	kW/hp	240 / 326	240 / 326
System torque	Nm	500	500
Weight-to-power ratio (DIN)	kg/kW	7.9	8.1
Combustion engine			
Config/No of cyls/valves		in-line / 4 / 4	in-line / 4 / 4
Engine technology		BMW TwinPower Turbo technology: TwinScroll turbocharger, High Precision Injection, VALVETRONIC fully variable valve control, Double VANOS variable camshaft control	
Effective capacity	cm ³	1998	1998
Stroke/bore	mm	94.6 / 82.0	94.6 / 82.0
Compression ratio	:1	10.2	10.2
Fuel grade		min RON 91	min RON 91
Output	kW/hp	190 / 258	190 / 258
at	rpm	5000 – 6500	5000 – 6500
Torque	Nm	400	400
at	rpm	1550 – 4400	1550 – 4400
Output per litre	kW/ltr	95.1	95.1
Electric motor			
Motor technology		BMW eDrive technology: synchronous electric motor integrated in 8-speed Steptronic transmission, generator function for energy recuperation for the high-voltage battery	
Max output	kW/hp	83 / 113	83 / 113
at	rpm	3170	3170
Torque	Nm	250	250
at	rpm	0 – 3170	0 – 3170
Recuperation output	kW	20	20
High-voltage battery			
Storage technology / installation		lithium-ion / underneath rear seat	
Voltage	V	351	351
Capacity (gross)	kWh	9.2	9.2
Charging time for 100% charge		2.7 h at 3.7 kW (16 A / 230 V)	2.7 h at 3.7 kW (16 A / 230 V)
Transmission			
Type of transmission		8-speed Steptronic	8-speed Steptronic
Gear ratios	I	4.714	4.714
	II	3.143	3.143
	III	2.106	2.106
	IV	1.667	1.667
	V	1.285	1.285
	VI	1.000	1.000
	VII	0.839	0.839
	VIII	0.667	0.667
	R	3.317	3.317

Final drive	:1	3.077	3.077
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BMW 740e iPerformance		BMW 740Le iPerformance
Driving dynamics and safety		
Suspension, front	Double track control arm axle with separate lower track arm level, aluminium, small steering roll radius, anti-dive, air suspension with automatic self-levelling	
Suspension, rear	Five-link axle, aluminium, with steering function, anti-squat and anti-dive, double acoustic separation, air suspension with automatic self-levelling	
Brakes, front	Four-piston fixed-calliper disc brakes, vented	
Brakes, rear	Single-piston floating-calliper disc brakes, vented	
Driving stability systems	Standard: DSC incl. ABS, ASC and DTC (Dynamic Traction Control), Cornering Brake Control (CBC), Dynamic Brake Control (DBC), Dry Braking function, Fading Compensation, Start-Off Assistant, Dynamic Damper Control	
Safety equipment	Standard: airbags for driver and front passenger, side airbags for driver and front passenger, head airbags for 1st and 2nd seat row, driver's side knee airbag, three-point inertia-reel belts on all seats, integrated at the front with belt tightener and belt force limiter, crash sensors, tyre pressure indicator	
Steering	Electric Power Steering (EPS) with Servotronic function, optional: Integral Active Steering	
Steering transmission, overall	:1	16.9
Tyres, front/rear	225/60 R17 99Y	225/60 R17 99Y
Rims, front/rear	7.5J x 17 light-alloy	7.5J x 17 light-alloy
Performance		
Acceleration 0–100 km/h	s	5.4
Maximum speed	km/h	250
Maximum speed electric	km/h	140
BMW EfficientDynamics		
BMW EfficientDynamics standard measures	BMW eDrive technology, Electric Power Steering (EPS), hybrid-specific Auto Start Stop function, Optimum Shift Indicator, ECO PRO mode with coasting function and Proactive Driving Assistant, BMW EfficientLightweight, optimised aerodynamic attributes, active air vents, on-demand operation of ancillary units, map-controlled oil pump, detachable a/c compressor, rear differential with optimised warm-up behaviour, tyres with reduced roll resistance	
Fuel consumption in EU cycle for hybrid vehicles³⁾		
With standard wheels and tyres		
Petrol consumption combined	l/100 km	2.0
CO ₂ emissions from petrol	g/km	45
Electric power consumption combined	kWh/100 km	12.5
Electric range	km	48
With 8J x 18 wheels and 245/50 R18 tyres		
Petrol consumption combined	l/100 km	2.1
CO ₂ emissions from petrol	g/km	49
Electric power consumption combined	kWh/100 km	13.1
Electric range	km	45
With 8.5J x 19 wheels and 245/45 R19 tyres, and with winter tyres		
With 8.5J x 19 front wheels, 9.5J x 19 rear wheels, 245/45 R19 front tyres, 275/40 R19 rear tyres		
With 8.5J x 20 front wheels, 10J x 20 rear wheels, 245/40 R20 front tyres, 275/35 R20 rear tyres		
With 8.5J x 21 front wheels, 10J x 21 rear wheels, 245/35 R21 front tyres, 275/30 R21 rear tyres		
Petrol consumption combined	l/100 km	2.2
CO ₂ emissions from petrol	g/km	50
Electric power consumption combined	kWh/100 km	13.3
Electric range	km	44
Emission rating	EU6	EU6

Specifications apply to ACEA markets / data relevant to homologation apply in part only to Germany (weight)

¹⁾ Height including roof fin

²⁾ Oil change

³⁾ Fuel consumption and CO₂ emissions may vary depending on the tyre format specified

BMW 740Le xDrive iPerformance.

BMW 740Le xDrive iPerformance		
Body		
No of doors/seats		4 / 5
Length/width/height ¹⁾ (unladen)	mm	5238 / 1902 / 1479
Wheelbase	mm	3210
Track, front/rear	mm	1617 / 1646
Ground clearance	mm	135
Turning circle	m	12.9
Fuel tank capacity	approx ltr	46
Engine oil ²⁾	ltr	5.25
Weight, unladen, to DIN/EU	kg	2000 / 2075
Max load to DIN	kg	655
Max permissible weight	kg	2655
Max axle load, front/rear	kg	1205 / 1485
Max roofload/towbar download	kg	100 / –
Luggage comp capacity	ltr	420
Air resistance	c _d x A	0.25 x 2.42
Drive system		
Drive concept		Full hybrid drive, torque vectoring to all four wheels from one or both units via BMW xDrive
System output	kW/hp	240 / 326
System torque	Nm	500
Weight-to-power ratio (DIN)	kg/kW	8.3
Combustion engine		
Config/No of cyls/valves		in-line / 4 / 4
Engine technology		BMW TwinPower Turbo technology: TwinScroll turbocharger, High Precision Injection, VALVE TRONIC fully variable valve control, Double VANOS variable camshaft control
Effective capacity	cm ³	1998
Stroke/bore	mm	94.6 / 82.0
Compression ratio	:1	10.2
Fuel grade		min RON 91
Output	kW/hp	190 / 258
at	rpm	5000 – 6500
Torque	Nm	400
at	rpm	1550 – 4400
Output per litre	kW/ltr	95.1
Electric motor		
Motor technology		BMW eDrive technology: synchronous electric motor integrated in 8-speed Steptronic transmission, generator function for energy recuperation for the high-voltage battery
Max output	kW/hp	83 / 113
at	rpm	3170
Torque	Nm	250
at	rpm	0 – 3170
Recuperation output	kW	20
High-voltage battery		
Storage technology / installation		lithium-ion / underneath rear seat
Voltage	V	351
Capacity (gross)	kWh	9.2
Charging time for 100% charge		2.7 h at 3.7 kW (16 A / 230 V)
Transmission		
Type of transmission		8-speed Steptronic
Gear ratios		
I	:1	4.714
II	:1	3.143
III	:1	2.106
IV	:1	1.667
V	:1	1.285
VI	:1	1.000
VII	:1	0.839
VIII	:1	0.667

	R	:1	3.317
Final drive		:1	3.231

BMW 740Le xDrive iPerformance		
Driving dynamics and safety		
Suspension, front		Double track control arm axle with separate lower track arm level, aluminium, small steering roll radius, anti-dive, air suspension with automatic self-levelling
Suspension, rear		Five-link axle, aluminium, with steering function, anti-squat and anti-dive, double acoustic separation, air suspension with automatic self-levelling
Brakes, front		Four-piston fixed-calliper disc brakes, vented
Brakes, rear		Single-piston floating-calliper disc brakes, vented
Driving stability systems		Standard: DSC incl. ABS, ASC and DTC (Dynamic Traction Control), Cornering Brake Control (CBC), Dynamic Brake Control (DBC), Dry Braking function, Fading Compensation, Start-Off Assistant, DSC cross-linked with xDrive all-wheel drive, Dynamic Damper Control
Safety equipment		Standard: airbags for driver and front passenger, side airbags for driver and front passenger, head airbags for 1st and 2nd seat row, driver's side knee airbag, three-point inertia-reel belts on all seats, integrated at the front with belt tightener and belt force limiter, crash sensors, tyre pressure indicator
Steering		Electric Power Steering (EPS) with Servotronic function, optional: Integral Active Steering
Steering transmission, overall		:1 16.9
Tyres, front/rear		225/60 R17 99Y
Rims, front/rear		7.5J x 17 light-alloy
Performance		
Acceleration 0–100 km/h		s 5.3
Maximum speed		km/h 250
Maximum speed electric		km/h 140
BMW EfficientDynamics		
BMW EfficientDynamics standard measures		BMW eDrive technology, Electric Power Steering (EPS), hybrid-specific Auto Start Stop function, Optimum Shift Indicator, ECO PRO mode with coasting function and Proactive Driving Assistant, BMW EfficientLightweight, optimised aerodynamic attributes, active air vents, on-demand operation of ancillary units, map-controlled oil pump, detachable a/c compressor, rear differential and power divider with optimised warm-up behaviour, tyres with reduced roll resistance
Fuel consumption in EU cycle for hybrid vehicles ³⁾		
With standard wheels and tyres		
Petrol consumption combined		l/100 km 2.1
CO ₂ emissions from petrol		g/km 49
Electric power consumption combined		kWh/100 km 13.2
Electric range		km 45
With 8J x 18 wheels and 245/50 R18 tyres		
Petrol consumption combined		l/100 km 2.4
CO ₂ emissions from petrol		g/km 54
Electric power consumption combined		kWh/100 km 13.7
Electric range		km 42
With 8.5J x 19 wheels and 245/45 R19 tyres, and with winter tyres		
With 8.5J x 19 front wheels, 9.5J x 19 rear wheels, 245/45 R19 front tyres, 275/40 R19 rear tyres		
With 8.5J x 20 front wheels, 10J x 20 rear wheels, 245/40 R20 front tyres, 275/35 R20 rear tyres		
With 8.5J x 21 front wheels, 10J x 21 rear wheels, 245/35 R21 front tyres, 275/30 R21 rear tyres		
Petrol consumption combined		l/100 km 2.5
CO ₂ emissions from petrol		g/km 56
Electric power consumption combined		kWh/100 km 13.9
Electric range		km 41
Emission rating		EU6

Specifications apply to ACEA markets / data relevant to homologation apply in part only to Germany (weight)

¹⁾ Height including roof fin

²⁾ Oil change

³⁾ Fuel consumption and CO₂ emissions may vary depending on the tyre format specified