

# The BMW X5 xDrive40e. (At a glance)



The first plug-in hybrid production car from the BMW core brand is a Sports Activity Vehicle. Permanent all-wheel drive and the BMW EfficientDynamics eDrive technology endow the BMW X5 xDrive40e with sensational sportiness and supreme poise on the one hand and outstanding efficiency on the other. With a total system output of 230 kW/313 hp generated by a four-cylinder petrol engine with BMW TwinPower Turbo technology and a synchronous electric motor, the BMW X5 xDrive40e achieves a combined fuel consumption of 3.4 – 3.3 litres per 100 kilometres (83.1 – 85.6 mpg imp) and a combined electricity consumption of 15.4 – 15.3 kWh over the same distance. CO<sub>2</sub> emissions come in at 78 – 77 grams per kilometre (figures according to EU test cycle for plug-in hybrid vehicles, may vary depending on the tyre format specified).

The use of BMW eDrive technology for exceptionally efficient performance as well as all-electric mobility with zero tailpipe emissions as and when required ushers in a whole new form of commanding driving experience in a sports activity vehicle. At the same time, the BMW X5 xDrive40e reaps the benefits of the technology and know-how transferred from the debut of the BMW i cars. The BMW i8 blazes a trail for sustainable driving pleasure with plug-in hybrid drive power, which can now also be enjoyed for the first time in a model from the BMW core brand.

## **Lithium-ion battery with flexible charging options, typical SAV versatility and an exclusive ambience.**

The energy for the electric motor integrated in the 8-speed Steptronic transmission is drawn from a lithium-ion battery, which also supplies power to the low-voltage battery for the 12V electrical system aboard the BMW X5 xDrive40e via a voltage transformer. It can be recharged by connecting to any standard domestic power socket or a **BMW i Wallbox**, as well as at public charging stations. To save space the high-voltage battery is housed underneath the luggage compartment floor, where it is also particularly well protected in the event of a crash. With 500 – 1,720 litres of luggage space, a three-part folding rear backrest and a luxuriously designed interior, the BMW X5 xDrive40e also boasts the high versatility associated with a large sports activity vehicle but blended with an exclusive ambience.

### **Intelligent powertrain control and eDrive button for intense hybrid driving and mobility with zero local emissions.**

The actual driving experience is likewise characterised by versatile and effortless performance. The intelligent hybrid powertrain control ensures that the engine and the electric motor act in unison in a way that optimises efficiency while also catering perfectly to the driver's wishes. The eDrive button on the centre console allows the driver to adjust the hybrid drive's operating mode. In the **AUTO eDrive** basic setting, the engine's power is boosted to noticeable effect when accelerating or during quick bursts of speed by the electric drive, whose full torque of 250 Newton metres (184 lb-ft) is on tap from standstill for instantaneous power delivery. The BMW X5 xDrive40e completes the sprint from 0 to 100 km/h (62 mph) in 6.8 seconds.

Alternatively, the **MAX eDrive** mode can be engaged, enabling the BMW X5 xDrive40e to run purely on electric power – when driving in urban traffic for instance – resulting in zero local emissions. When the high-voltage battery is fully charged, the vehicle has a range of up to 31 kilometres (approx. 19 miles) in the all-electric drive mode with a limited maximum speed of 120 km/h (75 mph). The **SAVE Battery** mode can also be activated at the touch of a button, causing the high-voltage battery's state of charge to be maintained or allowing energy to be accumulated again, e.g. by means of recuperation, if capacity is low. In this way, electrical energy can be deliberately conserved for all-electric driving later in the journey.

Regardless of the setting chosen with the eDrive button, the power stemming from both drive sources is permanently transmitted to the road via the intelligent all-wheel-drive system, BMW xDrive. The various vehicle set-ups that can be selected with the Driving Experience Control switch – COMFORT, SPORT and ECO PRO – are also available in all drive modes.

### **Hybrid-specific products and services from BMW ConnectedDrive and BMW 360° ELECTRIC.**

All of the driver assistance systems and mobility services from BMW ConnectedDrive offered as standard or as optional extras for the BMW X5 are also available to provide enhanced driving pleasure in the model variant with eDrive technology. An **intelligent energy management** function is also offered as a special model-specific feature that can be used in conjunction with the Navigation system Professional which is fitted as standard in the BMW X5 xDrive40e. Whenever route guidance is active, data on the route profile is factored into powertrain control along with real-time traffic information. When driving medium to long distances, the system can therefore ensure it is possible to drive purely on electric power on urban

sections by using Brake Energy Regeneration and managing the high-voltage battery's energy reserves in a targeted and efficient manner.

The hybrid-specific version of the BMW Remote app makes it possible to check the high-voltage battery's state of charge, locate public charging stations or call up efficiency evaluations for the BMW X5 xDrive40e on a smartphone. The auxiliary heating and ventilation functions can also be activated remotely.

The **BMW i Wallbox Pure** and **BMW i Wallbox Pro**, including installation service, are available for home charging as part of the BMW 360° ELECTRIC concept, offering customers a particularly fast and convenient means of recharging the high-voltage battery while parked. Model-specific assistance services are also available. The **ChargeNow** service provides cash-free access to an extensive partner network of charging stations and billing of the charging costs with the **ChargeNow** card. The mobility service **ParkNow Longterm**, meanwhile, makes it easier to find a parking space or locate and book a parking spot with charging facilities.

#### **Wide-ranging equipment options.**

The comprehensive standard specification of the BMW X5 on the plug-in hybrid model is extended to include the Navigation system Professional as well as an auxiliary heating and ventilation system. This is powered by electricity from the high-voltage battery or from the mains supply while charging. The BMW X5 xDrive40e additionally comes equipped as standard with the Adaptive Suspension Package Comfort including rear air suspension and Dynamic Damper Control.

Beyond this, practically all the optional extras offered for the BMW X5 can also be specified for the plug-in hybrid model. The Design Pure Experience and Pure Excellence packages for the exterior and interior are also available for the BMW X5 xDrive40e, as are the M Sport package and the bespoke features from BMW Individual.

Further information on official fuel consumption figures, specific CO<sub>2</sub> emission values and the electric power consumption of new passenger cars is included in the following guideline: "Leitfaden über Kraftstoffverbrauch, die CO<sub>2</sub>-Emissionen und den Stromverbrauch neuer Personenkraftwagen" (Guideline for fuel consumption, CO<sub>2</sub> emissions and electric power consumption of new passenger cars), which can be obtained from all dealerships, from the Deutsche Automobil Treuhand GmbH (DAT), Hellmuth-Hirth-Str. 1, 73760 Ostfildern-Schramhausen and at <http://www.dat.de/en/offers/publications/guideline-for-fuel-consumption.html>. LeitfadenCO<sub>2</sub> (GuidelineCO<sub>2</sub>) (PDF – 2.7 MB)

# Specifications.

## BMW X5 xDrive40e.



BMW X5 xDrive40e			
Body			
No. of doors/seats			5 / 5
Length/width/height <sup>1)</sup> (unladen)	mm		4886 / 1938 / 1762
Wheelbase	mm		2933
Track, front/rear	mm		1644 / 1650
Turning circle	m		12.7
Fuel tank capacity	approx. ltr		85
Engine oil <sup>2)</sup>	ltr		5.0
Weight (unladen) to DIN/EU	kg		2230 / 2305
Max load to DIN	kg		750
Max permissible weight	kg		2980
Max axle load, front/rear	kg		1250 / 1755
Max trailer load, braked (12%/unbraked)	kg		2700 / 750
Max roof load/towbar download	kg		100 / 140
Luggage comp. capacity	ltr		500 –1720
Air resistance	c <sub>d</sub> x A		0.31 x 2.84
Drive system			
Drive concept		Full hybrid drive, permanent torque vectoring to all four wheels from one or both units via BMW xDrive	
System output	kW/hp		230 / 313
Combustion engine			
Config./No. of cyls./valves			In-line / 4 / 4
Engine technology		BMW TwinPower Turbo technology: TwinScroll turbocharger, High Precision Injection, fully variable valve control (VALVETRONIC), Double VANOS variable camshaft control	
Effective capacity	cm <sup>3</sup>		1997
Bore/stroke	mm		90.1 / 84.0
Compression ratio	:1		10.0
Fuel grade			min RON 91
Output	kW/hp		180 / 245
at	rpm		5000 – 6500
Torque	Nm		350
at	rpm		1250 – 4800
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 <sup>3)</sup>	kW/hp		83 / 113
at	rpm		3170
Rated output	kW/hp		55 / 75
at	rpm		5000
Torque	Nm		250
at	rpm		0
Recuperation output	kW		20
High-voltage battery			
Storage technology / installation		Lithium-ion / underneath luggage comp.	
Voltage	V		351
Capacity (gross)	kWh		9.0
Charging time for 100% charge		< 2.8 h at 3.5 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	3.154

BMW X5 xDrive40e		
Driving Dynamics and Safety		
Suspension, front	Double track control arm with double joint principle, small, negative steering roll radius, anti-dive	
Suspension, rear	Integral-IV rear axle, spatial suspension with anti-squat and anti-dive, air suspension with automatic self-levelling	
Brakes, front	Single-piston floating-calliper disc brakes, inner-vented	
Brakes, rear	Single-piston floating-calliper disc brakes, inner-vented	
Driving stability systems	Standard: DSC incl. ABS and Dynamic Traction Control (DTC), Cornering Brake Control (CBC), Dynamic Brake Control (DBC), Dry Braking function, Fading Compensation, Start-Off Assistant; DSC linked to xDrive all-wheel-drive, Automatic Differential Brake (ADB-X), Hill Descent Control (HDC), Dynamic Damper Control	
Safety equipment	Standard: airbags for driver and front passenger, side airbags for driver and front passenger, head airbags for front and rear seats, crash-activated head restraints at the front, three-point inertia-reel seatbelts on all seats with integrated belt latch tensioner and belt force limiter at the front, crash sensors, rollover sensors, Tyre Defect Indicator	
Steering	Electric Power Steering (EPS) with Servotronic function	
Steering transmission, overall	:1	19.1
Tyres, front/rear	255/55 R18 109 V XL	
Rims, front/rear	8.5J x 18 light-alloy	
Performance		
Weight-to-power ratio (DIN)	kg/kW	9.7
Specific output combustion engine	kW/ltr	90.1
Acceleration 0–100 km/h	s	6.8
Maximum speed	km/h	210
Maximum speed electric	km/h	120
EU cycle electric range	km	up to 31
Offroad specifications		
Overhang angle, front/rear	°	25.0 / 22.5
Ramp angle	°	20.0
Ground clearance (unladen)	mm	209
Fording depth (at 7 km/h)	mm	500
BMW EfficientDynamics		
BMW EfficientDynamics standard measures	BMW eDrive technology, Brake Energy Regeneration with recuperation display, Electric Power Steering (EPS), hybrid-specific Auto Start Stop function, ECO PRO mode with coasting function, intelligent lightweight construction, optimised aerodynamic attributes, active air vents, on-demand operation of ancillary units, map-controlled oil pump, efficiency-optimised rear differential and power divider, tyres with reduced roll resistance	
Fuel consumption EU <sup>4)</sup>		
With standard wheels and tyres		
combined	ltr/100km	3.3
CO <sub>2</sub> emissions from fuel	g/km	77
Power consumption combined	kWh	15.3
With rims 9J x 19 front, 10J x 19 rear and tyres 255/50 R19 front, 285/45 R19 rear, with rims 10J x 20 front, 11J x 20 rear and tyres 275/40 R20 front, 315/35 R20 rear		
combined	ltr/100km	3.4
CO <sub>2</sub> emissions from fuel	g/km	78
Power consumption combined	kWh	15.4
Emission rating	EU6	

Specifications apply to ACEA markets/data relevant to homologation apply in part only to Germany (weight, maximum speed)  
All data are provisional

<sup>1)</sup> Height including roof fin

<sup>2)</sup> Oil change

<sup>3)</sup> According to ECE R-85

<sup>4)</sup> Fuel consumption and CO<sub>2</sub> emission figures depend on the specified tyre format