

PERFORMANCE & CAPABILITY

NEW RANGE ROVER VELAR: ENHANCED ELECTRIFIED PERFORMANCE AND SUPERIOR BREADTH OF CAPABILITY

- **Enhanced electricity:** Plug-in electric hybrid delivers the best of all worlds with 404PS, WLTP certified EV range of up to 64km – up from 53km - and CO₂ from 38g/km⁵
- **Reduced emissions:** The average daily distance driven in a Range Rover Velar could be done with zero tailpipe emissions *
- **Advanced powertrains:** Latest Ingenium petrol and diesel engines feature Mild Hybrid Electric vehicle (MHEV) technology for enhanced fuel efficiency and responses
- **Effortless comfort:** Advanced suspension and chassis technologies combine to provide customary Range Rover refinement, ride and handling
- **Confidence-inspiring:** Intelligent All-Wheel Drive with Intelligent Driveline Dynamics with state-of-the-art Adaptive Dynamics and Configurable Dynamics deliver superior composure

New Range Rover Velar has a powertrain to suit every client, including a fuel-efficient P400e plug-in electric hybrid, now with a 21 per cent improvement in range, for up to 64km⁵ of electric-only driving. It is available alongside a range of smooth Ingenium petrol and diesel engines, all featuring Mild Hybrid Electric Vehicle (MHEV) technology that boosts fuel efficiency and performance.

All powertrains complement Range Rover Velar's effortlessly balanced and composed driving dynamics, with a suite of advanced chassis and suspension technologies providing a confidence-inspiring drive on every terrain.

Range Rover Velar P400e Electric Hybrid

New Range Rover Velar is available with an advanced P400e plug-in electric hybrid powertrain. It provides the best of all worlds, combining a 105kW electric motor with an Ingenium petrol engine to provide effortless and hushed performance.

The balance of electric-only driving and petrol performance means the Range Rover Velar P400e is perfect for short urban trips and longer journeys. It has an expected real-world range of up to 51km⁴ - enough to ensure the average daily distance driven in a Range Rover Velar could be done with zero tailpipe emissions. For longer journeys, the plug-in hybrid powertrain provides a combined real-world 684km of petrol and electric range⁸.

Using electric power alone, it can drive for up to 64km certified, while overall CO₂ emissions are from 38g/km on the WLTP cycle, with fuel consumption of up to 1.6l/100km.⁵ The electric-only range has been increased from 53km⁵ thanks to a larger 19.2kWh battery, 12 per cent larger than before thanks to the addition of an extra module. The additional battery module – taking the total to nine – also enables enhanced driving performance and consistency, meaning the Velar

P400e is capable of utilising more of its battery and smooth electric performance more of the time. Despite the larger battery pack, dimensions are unchanged and interior space is uncompromised.

With a combined 404PS and 640Nm of torque from its 300PS 2.0-litre four-cylinder Ingenium petrol engine and 105kW electric motor, the Velar electric hybrid is capable of accelerating from 0-100km/h in 5.4 seconds, and a top speed of 209km/h. The Velar P400e can also travel on electric power alone up to speeds of 140km/h.⁵ Drivers can select from three driving modes:

- **EV Mode** – enables the vehicle to prioritise running solely on the electric power using the energy stored in the battery, for quiet, zero-tailpipe emissions journeys
- **HYBRID Mode** – intelligently blends EV and conventional driving, according to the road, journey and set destination. It makes optimum use of the battery, including automatically switching to EV mode when you enter a city centre low-emission zone. Predictive Energy Optimisation ensures a smooth and comfortable journey
- **SAVE Mode** – prioritises the combustion engine as its energy source, maintaining the battery's state of charge at a chosen level, which can then be used at a specific point in the journey – for example when entering urban areas

Clients can conveniently charge their Range Rover Velar in three ways. The P400e is one of very few plug-in electric hybrid vehicles capable of rapid DC charging, with a 0-80 per cent charge possible in as little as 30 minutes away from home using a 50kW charger.³ At home, it can charge from 0-100 per cent using a 7kW AC charger in 2.5 hours, while three-pin charging is also possible when required.

Clients are also able to control and monitor their home charging on a smart phone via the Remote App² – which can be used to precondition the cabin too. Clients can effectively set charging times to take advantage of energy efficient off-peak tariffs or simply to suit their lifestyle.

In-line Ingenium petrol and diesel engines

The latest generation of smooth and fuel efficient Ingenium petrol and diesel engines are available with 48-volt Mild Hybrid Electric Vehicle (MHEV) technology for superior efficiency and power delivery.

The MHEV system uses a Belt integrated Starter Generator (BiSG) to harvest energy usually lost under deceleration, which is then stored in a 48-volt lithium-ion battery located beneath the rear loadspace. It can redeploy the stored energy to assist the engine when accelerating, while also delivering a more refined and responsive start-stop system.

The 3.0-litre straight-six Ingenium petrol engine is available in two power outputs. The P340 delivers 340PS and 480Nm of torque, with acceleration from 0-100km/h in 6.3 seconds. The more powerful P400 delivers 400PS and 550Nm of torque, with acceleration from 0-100km/h in 5.5 seconds with CO₂ from 219g/km*. The P400 is the most powerful non-SV engine ever offered on a Range Rover Velar.⁵

The 2.0-litre four-cylinder P250 provides 250PS and 365Nm of torque, with 0-100km/h in 7.5 seconds CO₂ emissions from 211g/km and fuel consumption up to 9.3l/100km.⁵

The lightweight straight-six Ingenium petrol engine features a number of innovations. An electric supercharger, supported by a twin-scroll turbocharger, features an exhaust manifold split into two 'scrolls' that each feed the turbo from three cylinders. This separates the flow and creates greater spacing between exhaust pulses for improved drivability from low engine speeds.

Continuous Variable Valve Lift (CVVL) also allows the engine to produce power and torque as efficiently as possible by varying the extent to which inlet valves are opened, for enhanced responses.

The 3.0-litre straight-six D300 diesel engine produces 300PS and 650Nm of torque to deliver powerful performance, with acceleration from 0-100km/h in 6.5 seconds. Series sequential turbos and an advanced after-treatment system are fitted, with CO₂ emissions from 188g/km and fuel consumption of up to 7.2l/100km. Pioneering technologies include a high-pressure fuel injection system, which operates at up to 2,500 bar and is able to deliver five injections per cycle with quantities as small as 0.8 milligrams in just 120 microseconds (0.00012 seconds) for enhanced fuel efficiency and refinement.⁵

State-of-the-art Exhaust Gas Recirculation technology also optimises fuel efficiency and refinement while close-coupled, sequentially arranged turbos feature electric variable nozzle turbines for precise control and immediate responses. At 2,000rpm the engines can deliver 90 per cent of peak torque in just over one second. The in-line Ingenium diesel meets Real Driving Emissions Step 2 (RDE2) standards and Euro 6d-final real-world driving compliance.

The 2.0-litre, four-cylinder D200 Ingenium diesel engine produces 204PS with CO₂ emissions from 168g/km and fuel consumption of up to 6.4 litres/100km with strong performance and keen responses.⁵ This engine features MHEV technology for improved smoothness and fuel efficiency. The Range Rover Velar engine range comprises:

Electric Hybrid

- **P400e** – 404PS, 2.0-litre four-cylinder petrol PHEV, 640Nm of torque at 1,500-4,400rpm, eight-speed automatic, AWD

Petrol

- **P250** – 250PS 2.0-litre four-cylinder petrol, 365Nm of torque at 1,300-4,500rpm, eight-speed automatic, AWD
- **P340** – 340PS, 3.0-litre six-cylinder petrol MHEV, 480Nm of torque at 1,500-4,500rpm, eight-speed automatic, AWD
- **P400** – 400PS, 3.0-litre six-cylinder petrol MHEV, 550Nm of torque at 2,000-5,000rpm, eight-speed automatic, AWD

Diesel

- **D200** – 204PS, 2.0-litre four-cylinder diesel MHEV, 430Nm of torque at 1,750-2,500rpm, eight-speed automatic, AWD
- **D300** – 300PS, 3.0-litre six-cylinder diesel MHEV, 650Nm of torque at 1,500-2,500rpm, eight-speed automatic, AWD

Optimised dynamics

Adaptive Dynamics is fitted as standard and ensures suspension stiffness is optimised for the driving conditions, improving ride comfort and handling. It does this by monitoring wheel movements 500 times per second and body movements 100 times per second, continuously varying the damping forces at all four corners of the vehicle. There's even a specific calibration for off-road driving.

Configurable Dynamics allows drivers to the vehicle to suit their individual preferences using the Pivi Pro⁶ touchscreen. In Dynamic mode's default setting, throttle response is increased, gear shifts reflect a sportier driving style, the suspension stiffens, and power-steering assistance is reduced for extra driver feedback. Configurable Dynamics allows individual parameters to be adjusted, so increased throttle response can be combined with, for example, the default suspension setting if desired.

Velar's electric power-assisted steering (EPAS) system has been developed for exceptional driver feedback, precision and feel, ensuring greater responsiveness and a more natural feel.

The Torque Vectoring by Braking (TVBB) system, standard on all models, further enhances agility. If the system detects the onset of understeer during corner entry, it initiates light braking of the inside wheels – in particular the inside rear – to help the driver maintain the desired line through the corner. TVBB is also beneficial at lower speeds when driving on slippery surfaces.

Advanced suspension options

Trademark Range Rover ride comfort and refinement is provided by the advanced chassis and suspension.

Optional Electronic Air Suspension delivers luxurious ride comfort, with a range of additional features designed to make life easier, while also improving Range Rover Velar's all-terrain capability thanks to a maximum ground clearance of 251mm.

Elegant Arrival automatically reduces the Velar's body height by 40mm to aid entry and exit, while Auto Access Height lowers the maximum body height to 1,683mm⁷, for access to height-restricted garages and car parks. Active Speed Lowering¹ increases fuel efficiency at speeds above 105km/h by lowering the vehicle to reduce aerodynamic drag.

The Electronic Air Suspension system is also self-levelling, maintaining the optimum ride height when towing or carrying heavy loads, improving occupant comfort and ensuring a composed drive. It also assists when hitching a trailer, or when loading or unloading from the boot – controls inside the luggage compartment can raise or lower the suspension by 50mm.

Capability and composure

The Range Rover Velar is equipped with a range of advanced technologies that deliver exceptional composure and agility on-road, and all-terrain performance for customary Range Rover breadth of capability.

An intelligent torque on-demand all-wheel drive (AWD) system provides the optimum torque distribution to suit the conditions, whether driving dynamically on the road or pulling away from a standstill on slippery surfaces.

This incredibly responsive system delivers exceptional performance in all conditions, changing the distribution of power and torque almost instantaneously, meaning clients experience the highest level of capability within a moment's notice, and in a way that is imperceptible when driving.

Depending on the conditions it can go from being 100 per cent rear-wheel drive to fully locked all-wheel drive for all-terrain manoeuvres in only 165 milliseconds, while shifting torque delivery to the front axle can take as little as 100 milliseconds.

This distribution between the front and rear axles is managed by Intelligent Driveline Dynamics (IDD), a highly sophisticated control system developed in-house. IDD takes information from a number of sensors around the vehicle, and measures data such as the angle of the steering wheel and the position of the throttle pedal. Using these, IDD continuously estimates how much friction there is between the tyre and the road, and how much grip there is, to ensure enhanced composure and driver confidence at all times.

The Active Locking Rear Differential, an electronic control system available on all six-cylinder models, delivers benefits on- and off-road. It optimises the torque distribution between the rear wheels, maximising traction in situations such as acceleration and when exiting corners, as well as when traversing challenging terrain.

Terrain Response 2^â is accessible through the intuitive Pivi Pro⁶ system and allows the driver to adjust vehicle settings to suit the driving environment, with a choice of Eco, Comfort, Grass-Gravel-Snow, Mud-Ruts, Sand, Dynamic and Automatic mode. Each alters the calibration of the engine, transmission, all-wheel drive system, suspension, and stability control systems for optimum traction and composure.

A comprehensive portfolio of technologies supports Velar's all-terrain capability. The 3D Surround Camera displays a real-time external 3D perspective of the vehicle via the touchscreen – useful for low-speed manoeuvres. It can even display a plan view from above, seemingly making the car disappear – useful when manoeuvring across different terrains.

The ClearSight Ground View system cleverly stitches together camera feeds to offer a virtual view below the bonnet on the central Pivi Pro⁶ display, so drivers can see the hidden area on the ground directly in front and beneath the vehicle. Cameras positioned in the front grille and on the door mirrors provide an accurate representation of the terrain and any potential hazards.

The Rear Camera provides improved visibility when reversing. Embedded above the rear registration plate, the camera enables a series of views including Reverse View, Rear Junction View and Hitch Assist. The technology works by overlaying the car's outer perimeter and projected path onto the camera's live video feed, for greater accuracy while parking and manoeuvring.

In Rear Junction View, the driver has a wide-angle view (180°) of the upcoming road to compensate for the obstruction. The camera's high resolution and wide angle allows an uninterrupted view of objects up to 2m high at distances of 1-60m from the rear bumper. For customers looking to tow, Hitch Assist aids the process of reversing the Velar to a tow hitch point behind the vehicle⁹. Guidelines are displayed as the driver reverses towards the trailer, helping to manoeuvre with precision.

All Terrain Progress Control (ATPC) functions like a low-speed cruise control and provides added composure in adverse conditions by managing vehicle speed – use of the throttle and brake is not required. The system is activated with the press of a button, and the desired speed set using the cruise control switches on the steering wheel. ATPC works in both forward and reverse gears and is operational from 3.6 to 30.0km/h. It is particularly beneficial in challenging environments where steep gradients, rough terrain and low-grip levels mean a constant crawl speed is desirable in order to maintain composure and occupant comfort.

Low Traction Launch is designed to help drivers pull away smoothly from a standstill on very slippery surfaces. Activated through Pivi Pro⁶, Low Traction Launch reduces the possibility of wheelspin. Above 30km/h, the throttle calibration automatically reverts back to the Terrain Response^â setting that was previously selected.

Hill Descent Control (HDC) uses the ABS system to maintain a controlled vehicle speed on steep inclines without driver intervention. HDC incorporates Gradient Release Control to progressively release the brakes when moving away on an incline.

The 4x4i menu also offers slope information – displaying the degree of incline and front and rear camera views – as well as familiar information such as steering wheel angle, driveline torque distribution, suspension articulation and Wade Sensing data.

ENDS

**Assumes charging only at home and based on anonymized ownership data from Range Rover Velar customer.*

¹Not available with plug-in electric hybrid.

²Compatible smart phones only.

³P400e electric hybrid capable of 0-80 per cent charge in as little as 30 minutes using a 50kW rapid DC Charger.

⁴Assumes charging only at home and based on anonymised ownership data from Range Rover Velar customer.

⁵The figures provided are as a result of official manufacturer's tests in accordance with EU WLTP legislation derivatives with a fully charged battery. For comparison purposes only. Real world figures may differ. CO₂, fuel economy, energy consumption and range figures may vary according to factors such as driving styles, environmental conditions, load, wheel fitment, accessories fitted, actual route and battery condition. Figures shown are for European EU6 markets. Other market fuel economy and range certification and figures published at www.landrover.com All emissions, fuel economy and EV-only range figures are EU WLTP (TEL) Combined.

⁶Pivi Pro features, options and their availability remain market dependent - check with your Retailer for local market availability and full terms. Certain features require an appropriate sim with a suitable data contract which will require further subscription after the initial term advised by your Retailer. Mobile connectivity cannot be guaranteed in all locations.

⁷With coil suspension (air suspension is 5mm lower) – 1,678mm

⁸For comparison purposes only. Real world figures may differ. CO₂, fuel economy, energy consumption and range figures may vary according to factors such as driving styles, environmental conditions, load, wheel fitment, accessories fitted, actual route and battery condition.

⁹Towing and low range use will substantially affect range

Notes to Editors

About Land Rover

Since 1948 Land Rover has been manufacturing authentic 4x4s that represent true 'breadth of capability' across the model range. Defender, Discovery, Discovery Sport, Range Rover, Range Rover Sport, Range Rover Velar and Range Rover Evoque each define the world's SUV sectors, with 80 per cent of this model range exported to over 100 countries.

Important notice

Jaguar Land Rover is constantly seeking ways to improve the specification, design and production of its vehicles, parts and accessories and alterations take place continually. Whilst every effort is made to produce up-to-date literature, this document should not be regarded as an infallible guide to current specifications or availability, nor does it constitute an offer for the sale of any particular vehicle, part or accessory. All figures are manufacturer's estimates.