

TECHNICAL SPECIFICATION 2024

RANGE ROVER
VELAR



ENGINES AND TECHNICAL SPECIFICATION

Range Rover Velar features advanced engine options, providing new levels of performance, efficiency, and refinement. There is a plug-in electric hybrid (PHEV) for all-electric, zero tailpipe emissions driving, as well as petrol and diesel engine options.

1

ENGINES

View the available engines, their fuel economy and specifications.

2

DIMENSIONS AND CAPABILITIES

View the ride height, turning circle and other capability specifications.

ENGINES

			PETROL ELECTRIC HYBRID (PHEV)
			P400e
ENGINE			
Transmission			Automatic
Driveline			All Wheel Drive (AWD)
Maximum power (PS / kW / rpm)			404 / 297 / 5.500*
Maximum torque (Nm / rpm)			640 / 1.500-4.400*
Capacity (cc)			1.997
No. of cylinders / Valves per cylinder			4 / 4
Cylinder layout			Inline
Bore / stroke (mm)			83 / 92,3
Compression ratio (:1)			9,5
FUEL ECONOMY**			
Consumption	Combined	l/100km	2,2
CO ₂ Emissions	Combined	(g/km)	51
FUEL ECONOMY – WLTP†			
WLTP Consumption	Combined	l/100km	1,7-1,9 (163,3-150,3)
WLTP CO ₂ Emissions	Combined	(g/km)	39-43
Fuel tank capacity - useable litres			69
Selective Catalytic Reduction Filter / Gasoline Particulate Filter (SCRf / GPF)			■

■ Standard.

*When combined with electric motor. **The figures provided are NEDC calculated from official manufacturer's tests. Figures may vary according to environment and driving style. For comparison purposes only. Real world figures may differ.

†The figures provided are as a result of official manufacturer's tests in accordance with EU legislation 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. Range figures are based upon production vehicle over a standardised route.

ENGINES

	PETROL ELECTRIC HYBRID (PHEV)
BATTERY AND CHARGING TIMES	P400e
Home Charger / Wall box 7kW	2 hours 30 minutes to 100%
Rapid DC Charger 35kW	30 minutes to 80%
Domestic Plug 2,3kW	8 hours to 100%
Battery capacity Total (Usable) kWh	19.246 (15.39)
Charging cable length (m)	5
PERFORMANCE	
Acceleration (secs) 0-100 km/h (0-60 mph)	5,4 (5,1)
Maximum speed km/h (mph)	209 (130)
ELECTRIC MOTOR DATA	
Maximum power PS (kW)	142.7 (105)
Maximum torque (Nm)	275
EV Range Class A Combined (NEDC2*) km	69
EV Range Combined (WLTP**) km (miles)	63-62 (39-39)
EV Range expected Real World data (up to) km (miles)	49 (30)
BRAKES	
Front type	Single piston sliding caliper, vented disc
Front diameter (mm)	370
Rear type	Single piston sliding caliper, vented disc
Rear diameter (mm)	325
Park Brake	iEPB, motor on caliper
WEIGHTS (kg)[†]	
Unladen weight (EU) ^{††}	2.280
Unladen weight (DIN) [‡]	2.205
Gross Vehicle Weight (GVW)	2.740
TOWING (kg)	
Unbraked trailer	750
Maximum towing	2.000
Maximum coupling point (nose weight)	100
Maximum vehicle and trailer combination	4.740
ROOF CARRYING (kg)	
Maximum roof load (including cross bars)	79

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ENGINES

			PETROL MILD HYBRID (MHEV)	
ENGINE			P400	P340
Mild Hybrid Electric Vehicle (MHEV)			■	■
Transmission			Automatic	Automatic
Driveline			All Wheel Drive (AWD)	All Wheel Drive (AWD)
Maximum power (PS / kW / rpm)			400 / 294 / 5.500-6.500	340 / 250 / 5.500-6.500
Maximum torque (Nm / rpm)			550 / 2.000-5.000	480 / 1.500-4.500
Capacity (cc)			2.996	2.996
No. of cylinders / Valves per cylinder			6 / 4	6 / 4
Cylinder layout			Inline	Inline
Bore / stroke (mm)			83 / 92,3	83 / 92,3
Compression ratio (:1)			10,5	10,5
FUEL ECONOMY*				
Consumption	Combined	l/100km	9,1	9,1
CO ₂ Emissions	Combined	(g/km)	206	206
FUEL ECONOMY – WLTP**				
WLTP Consumption	Low	l/100km (mpg)	14,3-14,9 (19,8-18,9)	-
	Medium	l/100km (mpg)	9,5-10,0 (29,8-28,4)	-
	High	l/100km (mpg)	8,1-8,6 (34,9-32,8)	-
	Extra High	l/100km (mpg)	9,1-9,9 (30,9-28,5)	-
	Combined	l/100km (mpg)	9,6-10,2 (29,5-27,7)	-
WLTP CO ₂ Emissions	Low	(g/km)	326-341	-
	Medium	(g/km)	216-227	-
	High	(g/km)	185-196	-
	Extra High	(g/km)	208-226	-
	Combined	(g/km)	218-232	-
Fuel tank capacity - useable litres			83	83
Selective Catalytic Reduction Filter / Gasoline Particulate Filter (SCR / GPF)			■	■

■ Standard - Not Available.

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ENGINES

	PETROL MILD HYBRID (MHEV)	
	P400	P340
PERFORMANCE		
Acceleration (secs) 0-100 km/h (0-60 mph)	5,5 (5,2)	6,3 (6,0)
Maximum speed km/h (mph)	250 (155)*	240 (149)*
BRAKES		
Front type	Single piston sliding caliper, vented disc	Single piston sliding caliper, vented disc
Front diameter (mm)	370	370
Rear type	Single piston sliding caliper, vented disc	Single piston sliding caliper, vented disc
Rear diameter (mm)	325	325
Park Brake	iEPB, motor on caliper	iEPB, motor on caliper
WEIGHTS (kg)**		
Unladen weight (EU)†	2.085	2.085
Unladen weight (DIN)††	2.010	2.010
Gross Vehicle Weight (GVW)	2.670	2.670
TOWING (kg)		
Unbraked trailer	750	750
Maximum towing	2.500	2.500
Maximum coupling point (nose weight)	100	100
Maximum vehicle and trailer combination	5.170	5.170
ROOF CARRYING (kg)		
Maximum roof load (including cross bars)	79	79

*Top speed on engines with coil suspension is 210km/h (130mph). **Weights reflect vehicles to standard specifications. Optional extras increase weight. †Includes a 75kg driver, full fluids and 90% fuel. ††Includes full fluids and 90% fuel.

ENGINES

			PETROL
			P250
Transmission			Automatic
Driveline			All Wheel Drive (AWD)
Maximum power (PS / kW / rpm)			250 / 183.9 / 5.500
Maximum torque (Nm / rpm)			365 / 1.300-4.500
Capacity (cc)			1.997
No. of cylinders / Valves per cylinder			4 / 4
Cylinder layout			In-line
Bore / stroke (mm)			83 / 92,3
Compression ratio (:1)			10,5
FUEL ECONOMY*			
Consumption	Combined	l/100km	8,0
CO ₂ Emissions	Combined	(g/km)	182
Fuel tank capacity - useable litres			83
Selective Catalytic Reduction Filter / Gasoline Particulate Filter (SCR / GPF)			■

■ Standard.

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ENGINES

	PETROL
	P250
PERFORMANCE	
Acceleration (secs) 0-100 km/h (0-60 mph)	7,5 (7,1)
Maximum speed km/h (mph)	217 (135)
BRAKES	
Front type	Single piston sliding caliper, vented disc
Front diameter (mm)	350
Rear type	Single piston sliding caliper, vented disc
Rear diameter (mm)	325
Park Brake	iEPB, motor on caliper
WEIGHTS (kg)*	
Unladen weight (EU)**	1.950
Unladen weight (DIN)†	1.875
Gross Vehicle Weight (GVW)	2.550
TOWING (kg)	
Unbraked trailer	750
Maximum towing	2.400
Maximum coupling point (nose weight)	100
Maximum vehicle and trailer combination	4.950
ROOF CARRYING (kg)	
Maximum roof load (including cross bars)	79

*Weights reflect vehicles to standard specifications. Optional extras increase weight. **Includes a 75kg driver, full fluids and 90% fuel. †Includes full fluids and 90% fuel.

ENGINES

			DIESEL MILD HYBRID (MHEV)	
ENGINE			D300	D200
Mild Hybrid Electric Vehicle (MHEV)			■	■
Transmission			Automatic	Automatic
Driveline			All Wheel Drive (AWD)	All Wheel Drive (AWD)
Maximum power (PS / kW / rpm)			300 / 221 / 4.000	204 / 150 / 3.750-4.000
Maximum torque (Nm / rpm)			650 / 1.500-2.500	430 / 1.750-2.500
Capacity (cc)			2.997	1.998
No. of cylinders / Valves per cylinder			6 / 4	4 / 4
Cylinder layout			Inline	Inline
Bore / stroke (mm)			83 / 92,3	83 / 92,3
Compression ratio (:1)			15,5	16,5
FUEL ECONOMY*				
Consumption	Combined	l/100km	7,0	5,7
CO ₂ Emissions	Combined	(g/km)	185	150
FUEL ECONOMY – WLTP**				
WLTP Consumption	Low	l/100km (mpg)	10,4-11,2 (27,2-25,1)	7,4-7,9 (38,0-35,6)
	Medium	l/100km (mpg)	7,6-7,9 (37,2-35,9)	6,3-6,8 (45,1-41,4)
	High	l/100km (mpg)	5,7-6,1 (49,6-46,4)	5,5-6,1 (51,1-46,5)
	Extra High	l/100km (mpg)	7,1-7,7 (40,0-36,7)	6,7-7,4 (41,8-38,0)
	Combined	l/100km (mpg)	7,2-7,7 (39,3-36,6)	6,4-7,0 (44,3-40,5)
WLTP CO ₂ Emissions	Low	(g/km)	272-294	195-208
	Medium	(g/km)	198-206	164-179
	High	(g/km)	149-159	145-159
	Extra High	(g/km)	185-201	177-195
	Combined	(g/km)	188-202	167-183
Fuel tank capacity - useable litres			68	62
Selective Catalytic Reduction Filter / Gasoline Particulate Filter (SCR / GPF)			■	■

■ Standard.

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ENGINES

	DIESEL MILD HYBRID (MHEV)	
	D300	D200
PERFORMANCE		
Acceleration (secs) 0-100 km/h (0-60 mph)	6,5 (6,1)	8,3 (7,8)
Maximum speed km/h (mph)	230 (143)*	210 (130)
BRAKES		
Front type	Single piston sliding caliper, vented disc	Single piston sliding caliper, vented disc
Front diameter (mm)	370	350
Rear type	Single piston sliding caliper, vented disc	Single piston sliding caliper, vented disc
Rear diameter (mm)	325	325
Park Brake	iEPB, motor on caliper	iEPB, motor on caliper
WEIGHTS (kg)**		
Unladen weight (EU)†	2.124	2.003
Unladen weight (DIN)††	2.049	1.928
Gross Vehicle Weight (GVW)	2.710	2.590
TOWING (kg)		
Unbraked trailer	750	750
Maximum towing	2.500	2.400
Maximum coupling point (nose weight)	100	100
Maximum vehicle and trailer combination	5.210	4.990
ROOF CARRYING (kg)		
Maximum roof load (including cross bars)	79	79

*Top speed on engines with coil suspension is 210km/h (130mph). **Weights reflect vehicles to standard specifications. Optional extras increase weight. †Includes a 75kg driver, full fluids and 90% fuel. ††Includes full fluids and 90% fuel.

ENGINES

ENGINE	DIESEL	
	D300	D200
Transmission	Automatic	Automatic
Driveline	All Wheel Drive (AWD)	All Wheel Drive (AWD)
Maximum power (PS / kW / rpm)	300 / 221 / 4.000	199 / 146 / 3.750-4.000
Maximum torque (Nm / rpm)	650 / 1.500-2.500	430 / 1.750-2.500
Capacity (cc)	2.997	1.998
No. of cylinders / Valves per cylinder	6 / 4	4 / 4
Cylinder layout	Inline	Inline
Bore / stroke (mm)	83 / 92,3	83 / 92,3
Compression ratio (:1)	15,5	16,5
FUEL ECONOMY*		
Consumption	Combined	l/100km
CO ₂ Emissions	Combined	(g/km)
Fuel tank capacity - useable litres		
Selective Catalytic Reduction Filter / Gasoline Particulate Filter (SCR / GPF)	■	■

■ Standard.

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ENGINES

	DIESEL	
	D300	D200
PERFORMANCE		
Acceleration (secs) 0-100 km/h (0-60 mph)	6,5 (6,1)	8,3 (7,8)
Maximum speed km/h (mph)	230 (143)*	210 (130)
BRAKES		
Front type	Single piston sliding caliper, vented disc	Single piston sliding caliper, vented disc
Front diameter (mm)	370	350
Rear type	Single piston sliding caliper, vented disc	Single piston sliding caliper, vented disc
Rear diameter (mm)	325	325
Park Brake	iEPB, motor on caliper	iEPB, motor on caliper
WEIGHTS (kg)**		
Unladen weight (EU)†	2.068	1.946
Unladen weight (DIN)††	1.993	1.871
Gross Vehicle Weight (GVW)	2.710	2.590
TOWING (kg)		
Unbraked trailer	750	750
Maximum towing	2.500	2.400
Maximum coupling point (nose weight)	100	100
Maximum vehicle and trailer combination	5.210	4.990
ROOF CARRYING (kg)		
Maximum roof load (including cross bars)	79	79

*Top speed on engines with coil suspension is 210km/h (130mph). **Weights reflect vehicles to standard specifications. Optional extras increase weight. †Includes a 75kg driver, full fluids and 90% fuel. ††Includes full fluids and 90% fuel.

DIMENSIONS AND CAPABILITIES

DIMENSIONS

Maximum height 1.678mm (Air) 1.683mm (Coil)
Access height air suspension setting will reduce the above by 40mm

Overall length 4.797mm

Width 2.041mm mirrors folded

Width 2.147mm mirrors out

Front wheel track 1.643,6mm (Air), 1.640,2mm (Coil)

Rear wheel track 1.662,8mm (Air), 1.657,2mm (Coil)

Wheelbase 2.874mm

TURNING CIRCLE

Kerb-to-kerb 11,95m

Wall-to-wall 12,35m

Turns lock-to-lock 2,52

WADING DEPTH

Maximum wading depth 530mm / 580mm*

HEADROOM

Maximum front / rear headroom with standard roof 993mm / 988mm

Maximum front / rear headroom with panoramic roof 970mm / 966mm

LEGROOM

Maximum front legroom 1.023mm

Maximum rear legroom 944mm

OBSTACLE CLEARANCE

Off-road height (Air) 252mm* (Coil) 214mm

Standard ride height (Air) 205mm* (Coil) 214mm

APPROACH AND DEPARTURE CLEARANCE

Standard

Approach Angle - (Air) 22,5° (Coil) 23,6°

Departure Angle - (Air) 24,8° (Coil) 25,0°

Ramp Angle - (Air) 18,3° (Coil) 19,1°

Off-road

Approach Angle - (Air) 28,9° (Coil) 26,2°

Departure Angle - (Air) 29,0° (Coil) 26,7°

Ramp Angle - (Air) 23,8° (Coil) 21,0°

LOADSPACE CAPACITY

Height 687mm

Width 1.245mm

Loadspace width between arches 1.050mm

Length behind first row 1.791mm

Maximum loadspace volume behind first row

Dry** 1.374 litres

Wet† 1.811 litres

Length behind second row 988mm

Maximum loadspace volume behind second row

Dry** 568 litres

Wet† 748 litres



Weights and dimensions shown apply to standard-specification, unladen vehicles, which may be affected by optional features and equipment.

*Electronic air suspension only. **Dry: Volume as measured with VDA-compliant solid blocks (200mm x 50mm x 100mm). Volume measured up to the headliner. Boot configuration and total loadspace will vary by vehicle specification (model and powertrain) and market. †Wet: Volume as measured by simulating the loadspace filled with liquid. Volume measured up to the headliner. Boot configuration and total loadspace will vary by vehicle specification (model and powertrain) and market.

Vehicle shown is Autobiography with optional Black contrast roof and 22" Style 1075, 10 Spoke, Gloss Dark Grey with contrast Diamond Turned finish.

Figures may vary for P400e models.