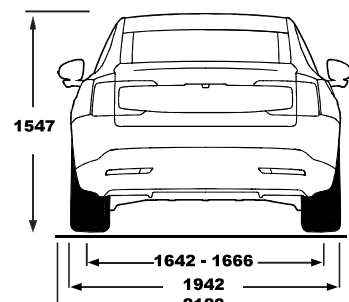
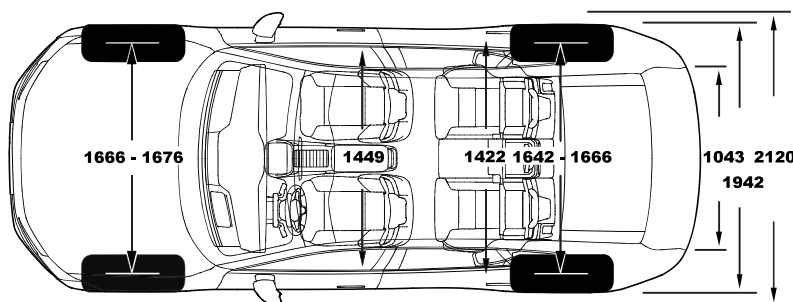
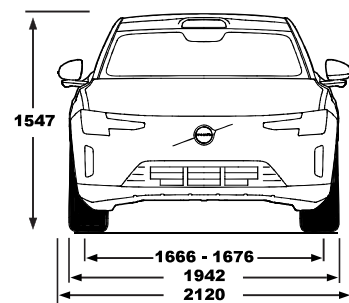
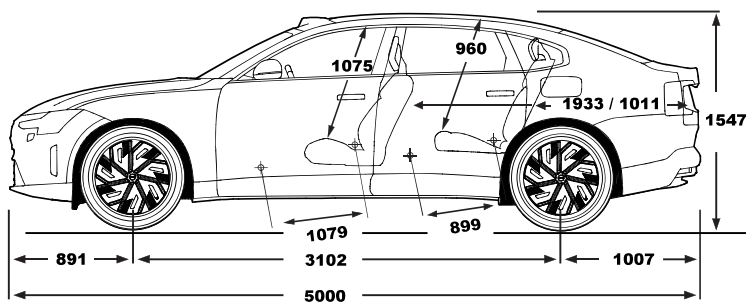


# Volvo ES90

ENGINES	Single Motor (E800V35)	Twin Motor (E800V33)	Twin Motor Performance (E800V32)
Type	Electric motor, rear	Electric motor, front and rear	Electric motor, front and rear
Electrical motor max output, kW (kW/engine)/rpm	245 / 4900 - 7000	330 (130 <sup>1</sup> + 200 <sup>2</sup> ) / 4700 - 11000 <sup>1</sup> / 5000 - 15000 <sup>2</sup>	500 (220 <sup>1</sup> + 280 <sup>2</sup> ) / 5400 - 8000 <sup>1</sup> / 5600 - 8000 <sup>2</sup>
Electrical motor max output, hp (hp/engine)/rpm (metric)	333 / 4900 - 7000	449 (177 <sup>1</sup> + 272 <sup>2</sup> ) / 4700 - 11000 <sup>1</sup> / 5000 - 15000 <sup>2</sup>	680 (299 <sup>1</sup> + 381 <sup>2</sup> ) / 5400 - 8000 <sup>1</sup> / 5600 - 8000 <sup>2</sup>
Max torque, Nm (Nm/engine)/rpm (metric)	480 / 0 - 4800	670 (265 <sup>1</sup> + 405 <sup>2</sup> ) / 0 - 4700 <sup>1</sup> / 0 - 4800 <sup>2</sup>	870 (390 <sup>1</sup> + 480 <sup>2</sup> ) / 0 - 5300 <sup>1</sup> / 0 - 5500 <sup>2</sup>
* EFAD (electric front axle drive) ** ERAD (electric rear axle drive)			
<b>PERFORMANCE</b>			
Acceleration, 0-100 km/h (sec)	6.6	5.4	4.0
Top speed, km/h	180	180	180
<b>BATTERY</b>			
Battery content, total amount of energy, (kWh) (Nominal)	92.0	106.0	106.0
Battery content, total amount of energy, (kWh) (Usable)	88.0	102.0	102.0
DC Charging Power (kW) (Peak Power)	310 <sup>*</sup> / 120 <sup>**</sup> / 260 <sup>***</sup>	350 <sup>*</sup> / 120 <sup>**</sup> / 300 <sup>***</sup>	350 <sup>*</sup> / 120 <sup>**</sup> / 300 <sup>***</sup>
* 800V ** 400V *** 400A (Nominal station Power/Voltage/Current)			
<b>CHARGING</b>			
AC, h (3-PHASE) (32 A / 16 A / 10 A / 6 A)	n/a / 10 / 16 / 30	n/a / 11 / 18 / 34	n/a / 11 / 18 / 34
AC, h (1-PHASE) (48 A / 32 A / 16 A / 10 A)	10 / 15 / 34 / 65	11 / 17 / 39 / 76	11 / 17 / 39 / 76
DC, min (50 kW) **	82	92	92
DC, min (150 kW) **	30	32	32
DC, min (200 kW) **	n/a	n/a	n/a
DC, min (250 kW) **	n/a	n/a	n/a
DC, min (300 kW) **	22	24	24
DC, min (350 kW) **	22	22	22
Range 10 min charging <sup>****</sup> (EU <sup>1</sup> /China <sup>2</sup> /km <sup>3</sup> )	260 <sup>1/3</sup> / 295 <sup>2/3</sup>	up to 300 <sup>1/3</sup> / 290 <sup>2/3</sup>	up to 300 <sup>1/3</sup> / 290 <sup>2/3</sup>
* (Scaled values from 1-phase AC charging.) ** (10-80% loading rate, battery temp 20-35 deg C) *** Charging time is an estimation based on simulated data. **** The range estimates are based on the Europe, China or US authorities approved energy consumption values under ideal conditions. Actual range can vary depending on charge level, outdoor temperature, weather, topography, driving style, speed and how much electricity that is used for car functions such as cabin heating and cooling. The specified charging times are based on the battery being preconditioned before charging and are dependent on factors such as outdoor temperature, battery temperature, charging equipment, battery condition and car condition. The values provided apply to the base model and may differ for other variants.			
<b>RANGE</b>			
Electric Range, (WLTP) (CITY) (Km) (EU)	779 - 687	n/a	n/a
Electric Range, (WLTP) (Combined) (Km) (EU)	651 - 554	700	700
Electric Consumption, (kWh / 100 km) (EU)	15.9 - 18.5	17.1	17.1
Electric Range, (CLTC) (Km) (China)	700	740	740
Electric Range, (km) (Overseas)	755	n/a	n/a
Electric Consumption, (kWh / 100 km) (Overseas)	13.5	n/a	n/a



## MEASUREMENTS AND VOLUMES

### EXTERIOR MEASUREMENTS (CM)

Vehicle length (L103)	500.0
Body width (W116)	194.2
Vehicle width (W103)	194.2
Vehicle width (mirrors included) (W144)	212.0
Vehicle width (mirrors folded) (W145)	205.4
Vehicle height - incl shark fin (at curb weight) (air suspension RWD) (H101)	154.7
Vehicle height - incl shark fin (at curb weight) (coil suspension RWD) (H101)	155.4
Vehicle height - incl shark fin (at curb weight) (air suspension AWD) (H101)	154.6
Vehicle height - incl shark fin (at curb weight) (coil suspension AWD) (H101)	155.3
Vehicle height - incl shark fin (at curb weight + 1 person) (air suspension RWD) (H101)	154.5
Vehicle height - incl shark fin (at curb weight + 1 person) (coil suspension RWD) (H101)	155.0
Vehicle height - incl shark fin (at curb weight + 1 person) (air suspension AWD) (H101)	154.5
Vehicle height - incl shark fin (at curb weight + 1 person) (coil suspension AWD) (H101)	154.9
Wheelbase (L101)	310.2
Overhang (front) (L104)	89.1
Overhang (rear) (L105)	100.7
Track width - front (depending on rim size) (W101-1)	166.6 - 167.6
Track width - rear (depending on rim size) (W101-2)	164.2 - 166.6
Ground clearance (at curb weight) (air suspension RWD) (H156)	17.8
Ground clearance (at curb weight) (coil suspension RWD) (H156)	18.8
Ground clearance (at curb weight) (air suspension AWD) (H156)	17.7
Ground clearance (at curb weight) (coil suspension AWD) (H156)	18.4
Ground clearance (at curb weight + 1 person) (air suspension RWD) (H156)	17.8
Ground clearance (at curb weight + 1 person) (coil suspension RWD) (H156)	18.3
Ground clearance (at curb weight + 1 person) (air suspension AWD) (H156)	17.7
Ground clearance (at curb weight + 1 person) (coil suspension AWD) (H156)	18.0
Wading capability* at walking speed (at curb weight)	250.0

\* Up to a depth approximately level with the floor at walking speed

### WEIGHTS/MISCELLANEOUS

Weight, kg (min-max, depending on setup) (Curb weight / MIRO)	2335 - 2535 / 2410 - 2610*
Max. trailer weight, kg (RWD/AWD)	1600 / 2000
Max roof load, kg	75
Drag coefficient, Cd	0.25
Frontal area (m <sup>2</sup> )	2.54
Cd*A	0.647

\* Depending on setup \*\* MIRO = Mass in Running Order

## INTERIOR MEASUREMENTS

### AND VOLUMES (CM)

Head room maximum - front (H62-1-SR)	107.5
Effective Head room - front / rear (with panoramic roof) (H61-1SR / H61-2SR)	102.9 / 96.0
Shoulder room - front / rear (W3-1 / W3-2)	144.9 / 142.2
Hip room - front / rear (W5-1 / W5-2)	139.1 / 139.6
Effective Leg room - front / rear (L34 / L51-2)	107.9 / 89.9
Knee clearance - / rear (- / L48-2)	10.6
Closed Luggage Compartment - Second Total (V210-1) (including V209)	391
Closed Luggage Compartment - Second Total (V210-1-L) (including V209-L)	434
Largest Luggage volume - First (V214-1) (including V209) (litre)	1427
<small>(Largest volume. Load height limited by the headlining. Front limited by vertical plane tangential to the rear side of the front seatback)</small>	
Largest Luggage volume - Second (V214-2) (including V209) (litre)	446
<small>(Second seat up. Load height limited by the headlining. Front limited by vertical plane tangential to the rear side of the second seatback)</small>	
Open Luggage Compartment - First (V211-1) (including V209) (litre)	
<small>(Second seat folded. Load height limited to upper edge of the front seatback)</small>	
Open Luggage Compartment - Second (V211-2) (including V209) (litre)	904
<small>(Second seat up. Load height limited to the upper edge of the second seatback)</small>	
Closed storage compartments (V209 / V209-L) (litre)	424
<small>(Closed storage areas located around the luggage compartments, behind wheel arches, under the floor, or any other area)</small>	
Front luggage volume, (V216 / V216-L) (litre)	
<small>(Closed Frunk Luggage Compartment / Liquid Volume)</small>	
	27 / 49
Cargo length from the first seatback to the tailgate measured at:	
the height of the floor covering (L212-1)	193.3
the top of the first seatback (L214-1)	170.6
Cargo length from the second seatback to the tailgate measured at:	
the height of the floor covering (L212-2)	101.1
the top of the second seatback (L214-2)	64.1
Vehicle height with open tailgate (H110)	
<small>(at curb weight, RWD air suspension/coil suspension/AWD air suspension/coil suspension)</small>	
	218.1 / 218.6 / 218.1 / 218.6
Cargo floor height to ground (H253)	
<small>(at curb weight, RWD air suspension/coil suspension/AWD air suspension/coil suspension)</small>	
	71.4 / 72.0 / 71.3 / 72.0
Cargo floor width (between wheel housings) (H201)	61.6
Rear opening height (H202)	54.6
Cargo floor width (between wheel housings) (W201)	105.0
Rear opening width - Lower (W207)	104.3
Rear opening width - Upper (W205)	92.6

## CHASSIS

Active Suspension	front	Double Wishbone Suspension, Semi-Active Shock Absorbers, Stabilizer Bar, Dual Chamber Air Suspension.
	rear	Integral link Suspension, Semi-Active Shock Absorbers, Stabilizer Bar, Dual Chamber Air Suspension.
Standard Suspension	front	Double Wishbone Suspension, Hydraulic Shock Absorbers, Stabilizer Bar, Coil Springs.
	rear	Integral link Suspension, Hydraulic Shock Absorbers, Stabilizer Bar, Coil Springs.
Steering		Electric Power Assisted Rack and Pinion Steering. Redundant system prepared for autonomous driving application.
Turning circle (depending on rim size)		11.8 m (curb to curb) 12.2 m (wall to wall)
Braking system		Antilock Braking System (ABS) with Electronic Brake Distribution (EBD) and Electronic Brake with regenerative capacity. Redundant system prepared for autonomous driving application.
Braking distance, 100-0 km/h		36 m
Brake disc diameter	front	366 mm (Brake 19")
	rear	360 mm (Brake 19")
Brake disc thickness	front	26 mm (Brake 19")
	rear	22 mm (Brake 19")