

2025 Volvo EM90 Technical Specifications

		Single Motor
ENGINES		
Engine	E400V21(FB)	
Type	Electric motor, rear	
Electrical motor max output, kW (hp)/rpm (metric)	200 (272) / 6500 - 8000	
Electrical motor max output, kW (hp)/rpm (mechanical)	200 (268) / 6500 - 8000	
Max torque, Nm / rpm	343 / 100 - 5345	
Max torque, ft.lbf / rpm	253 / 100 - 5345	
PERFORMANCE		
Acceleration, 0–100 km/h (sec)	8.3	
Acceleration, 0–60 mph (sec)	7.9	
Top speed, km/h	180	
Top speed, mph	112	
BATTERY		
Battery content, total amount of energy, (kWh) (Nominal)	116	
Battery content, total amount of energy, (kWh) (Usable)	109	
Battery type	CATL	
CHARGING		
AC, h (3-PHASE) (16 A)	13.5	
AC, h (1-PHASE) (32 A)	n/a	
DC, min (360 kW) **	28.0	
** (10-80% loading rate, battery temp 20-35 deg C) ** (360kW charging station*)		
RANGE/ELECTRIC CONSUMPTION		
Electric Range, (CLTC) (Km)	Estimated range of up to ~738	
Electric Consumption, kWh/100km	17.2	
MEASUREMENTS AND VOLUMES		
EXTERIOR MEASUREMENTS (CM)		
Length (L103)	520.6	
Width (body width) (W116)	198.7	
Width (W103)	202.4	
Width (incl mirrors folded) (W144)	231.3	
Width (incl mirrors outer edge) (W145)	216.3	
Height (at curb weight) (H101)	185.9	
Height (at curb weight + 1 person) (H101)	185.9	
Wheelbase (L101)	320.5	
Overhang (front) (L104)	90.3	
Overhang (rear) (L105)	109.8	
Vehicle height with open tailgate/trunklid (at curb weight) (H110)	211.7	
Track, front, with air suspension (Tire (width): 255/265) (W101-1)	170.2 / 170.2	
Track, rear, with air suspension (Tire (width): 255/265) (W101-2)	171.4 / 171.4	
Ground clearance with air suspension (at curb weight) (front/rear) (H157)	14.8 / 15.4	
Ground clearance with air suspension (at curb weight + 1 person) (front/rear) (H157)	14.8 / 15.4	
Wading capability* at walking speed (at curb weight)	350	
* Up to a depth approximately level with the floor at walking speed		
WEIGHTS/MISCELLANEOUS		
Weight, kg (min–max, depending on setup) (Curb weight / Gross Vehicle Mass)	~2763 / ~3245	
Approach angle (degr.) (A116-1)	14.0	
Breakover angle (degr.) (A117)	11.6	
Departure angle (degr.) (A116-2)	18.0	
Drag coefficient, Cd	Down to 0.270	
* Depending on setup		
INTERIOR MEASUREMENTS AND VOLUMES (CM)		
Headroom maximum, with panoramic sunroof (front) (H62-1 SR)	113.7	
Headroom with panoramic sunroof (front/rear/third row) (H61-1 SR / H61-2 SR / H61-3 SR)	111.0 / 111.0 / 101.6	
Passenger comp width at shoulder height (front/rear/third row) (W3-1 / W3-2 / W3-3)	159.9 / 162.0 / 148.3	
Hip room front/rear (front/rear/third row) (W5-1 / W5-2 / W5-3)	147.9 / 166.9 / 120.0	
Largest Luggage volume - First (V214-1) (including under floor storage)	up to 2376	
(Largest volume. Load height limited by the head lining. Front limited by vertical plane tangential to the rear side of the front seatback)		
Largest Luggage volume - Second (V214-2) (including under floor storage)	up to 1490	
(Second seat up. Load height limited by the headlining. Front limited by vertical plane tangential to the rear side of the second seatback)		
Largest Luggage volume - Third (V214-3) (including under floor storage)	up to 535	
(Third seat up. Load height limited by the headlining. Front limited by vertical plane tangential to the rear side of the third seatback)		
Open Luggage Compartment - First (V211-1) (including under floor storage)	up to 1826	
(Second seat folded. Load height limited to upper edge of the front seatback or lower edge of the rear window)		
Open Luggage Compartment - Second (V211-2) (including under floor storage)	up to 1106	
(Second seat up. Load height limited to the upper edge of the second seatback or second window)		
Open Luggage Compartment - Third (V211-3) (including under floor storage)	up to 342	
(Third seat up. Load height limited to the upper edge of the third seatback or second window)		
Separate Storage Areas in Luggage Compartment (V209)	up to 2.5	
(Closed storage areas located around the luggage compartments, behind wheel arches, under the floor, or any other area)		
FRUNK VOLUME, (LITRES)		
W/O warning triangle (incl TMK)	29	
With warning triangle (incl TMK)	23	
Cargo length from the first seatback to the tailgate measured at:		
the height of the floor covering (L212-1)	239.3	
the top of the first seatback (L214-1)	223.9	
Cargo length from the second seatback to the tailgate measured at:		
the height of the floor covering (L212-2)	141.2	
the top of the second seatback (L214-2)	123.8	
Cargo length from the third seatback to the tailgate measured at:		
the height of the floor covering (L212-3)	52.0	
the top of the third seatback (L214-3)	42.8	
Cargo floor height to ground (curb weight) (H253)	59.4	
Rear opening height car center line (H202)	105.9	
Cargo height rear wheel center and car center line (H201)	81.1	
Entrance Height Second (H11-2)	89.0	
Step Height Second (H130-2)	39.7	
Lift in height front (H196)	66.5	
The mini vertical distance of the sliding door opening (H302)	124.7	
Ground–rear step (H303)	59.3	
SgRP to Ground Second (H5-2)	75.1	
Maximum cargo height (H505)	140.2	
Side cargo door opening height (H508)	124.4	
Cargo floor width, min. between wheel housings (W201)	115.5	
Rear opening width		
upper, min. (W205)	115.4	
at floor, min. (W207)	112.5	
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, m		
(curb to curb) (tire 255/265)	12.4 m	
(wall to wall) (tire 255/265)	12.9 m	
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	36.2 m / 37.9 m	
(Tire (width): 255 / 265)		
Brake disc dimension (20°)		
front	384 mm	
rear	350 mm	
Brake disc dimension (20°)		
front	30 mm	
rear	28 mm	