

2025 Volvo EC40 Technical Specifications

	Single Motor	Single Motor	Single Motor Extended range	Twin motor	Twin performance
ENGINE					
Engines	E400V23	E400V16	E400V8	E400V12	E400V19
Type	Electric motor	Electric motor	Electric motor	Electric motors	Electric motors
Configuration	RWD	RWD	RWD	AWD	AWD
Max output, kW (hp)/rpm	175 kW (238 hp) / 4500 rpm	175 kW (238 hp) / 4000 rpm - 5000 rpm	185 kW (252 hp) / 4300 rpm - 6000 rpm	300 kW (110 kW ¹ +190 kW ²) / (408 hp (150 hp ¹ + 258 hp ²)) / 4200 rpm - 8000 rpm ² / 4400 rpm - 6000 rpm ²	325 kW (135 kW ¹ +190 kW ²) / (442 hp (154 hp ¹ + 288 hp ²)) / 5200 rpm - 6000 rpm ² / 4400 rpm - 6000 rpm ²
Max torque, Nm/rps	420 Nm / 0 - 50 rps	420 Nm / 0 - 71 rps	420 Nm / 0 - 72 rps	670 Nm (250 Nm + 420 Nm) / 0 - 70 rps / 0 - 73 rps	670 Nm (250 Nm + 420 Nm) / 0 - 87 rps / 0 - 73 rps
Battery type	Lithium-ion battery	Lithium-ion battery	Lithium-ion battery	Lithium-ion battery	Lithium-ion battery
Battery content, total amount of energy (kWh) (Nominal)	70	69	82	82	82
Battery content, total amount of energy (kWh) (Usable)	67	66	79	79	79
BATTERY CHARGING TIME ¹ - DC - (10% - 80%) 50 kW (Charging power) (minutes) / 150 kW (Charging power) (minutes) / 175 kW (Charging power) (minutes) / 200 kW (Charging power) (minutes) /	61 / 27 / 27 / 26	63 / 33 / 33 / 33	68 / 29 / 28 / 28	68 / 29 / 28 / 28	68 / 29 / 28 / 28
BATTERY CHARGING TIME ² - AC 3-phase, 0 - 100% 6 A (Charging power) (hours) / 10 A (Charging power) (hours) / 16 A (Charging power) (hours)	19 / 11 / 7	20 / 12 / 8	23 / 15 / 8	23 / 15 / 8	23 / 15 / 8
BATTERY CHARGING TIME ² - AC 1-phase (200-240V) - (0 - 100%) 6 A (Charging power) (hours) / 10 A (Charging power) (hours) / 16 A (Charging power) (hours) / 32 A (Charging power) (hours) / 48 A (Charging power) (hours)	54 / 33 / 20 / 10 / 7	58 / 35 / 22 / 11 / 7	76 / 42 / 25 / 13 / 8	76 / 42 / 25 / 13 / 8	76 / 42 / 25 / 13 / 8
Electrical motor max power (kW)	175 kW	175 kW	185 kW	300 kW (110 kW + 190 kW)	325 kW (135 kW + 190 kW)
Electrical motor max torque (Nm)	420 Nm	420 Nm	420 Nm	670 Nm (250 Nm + 420 Nm)	670 Nm (250 Nm + 420 Nm)
¹ 150kW requires a 375A charger ¹ 175kW, 200kW requires a 500A charger					
² Charging time can vary depending on vehicle climatization and other active electric loads in the vehicle ² Charging time also depends on e.g. ambient temperature					
PERFORMANCE					
Performance	Shift-by-wire	Shift-by-wire	Shift-by-wire	Shift-by-wire	Shift-by-wire
Acceleration, 0-100 km/h	7.3 sec	7.3 sec	7.3 sec	4.7 sec	4.6 sec
Top speed	180 km/h	180 km/h	180 km/h	180 km/h	180 km/h
Electric Range [EAER] WLTP, City	644 km - 616 km	679 km - 638 km	782 km - 739 km	747 km - 699 km	744 km - 699 km
Electric Range [EAER] WLTP, Comb.	487 km - 445 km	485 km - 445 km	584 km - 540 km	554 km - 510 km	552 km - 510 km
Electric Consumption	16.7 kWh/100 km - 18.1 kWh/100 km	16.2 kWh/100 km - 17.5 kWh/100 km	16.2 kWh/100 km - 17.5 kWh/100 km	17.2 kWh/100 km - 18.7 kWh/100 km	17.3 kWh/100 km - 18.7 kWh/100 km
DIMENSIONS EXTERIOR					
Length (L103)	4440 mm	4440 mm	4440 mm	4440 mm	4440 mm
Wheelbase (L101)	2702 mm	2702 mm	2702 mm	2702 mm	2702 mm
Front Overhang (L104)	870 mm	870 mm	870 mm	870 mm	870 mm
Rear Overhang (L105)	868 mm	868 mm	868 mm	868 mm	868 mm
Height (Including shark fin) (at curb weight) (H101)	1596 mm	1596 mm	1596 mm	1596 mm	1596 mm
Height (Including shark fin) (at curb weight + 1 person) (H101)	1591 mm	1591 mm	1591 mm	1591 mm	1591 mm
Height with open tailgate/trunklid (H110)	2219 mm	2219 mm	2219 mm	2219 mm	2219 mm
Width (Body width) (W103)	1873 mm	1873 mm	1873 mm	1873 mm	1873 mm
Width (mirrors folded) (145)	1938 mm	1938 mm	1938 mm	1938 mm	1938 mm
Width (Including mirrors) (W144)	2034 mm	2034 mm	2034 mm	2034 mm	2034 mm
Width (Body width) (W116)	1873 mm	1873 mm	1873 mm	1873 mm	1873 mm
Track, front (depending on rim size) (W101-1)	1598 mm - 1601 mm	1598 mm - 1601 mm	1598 mm - 1601 mm	1598 mm - 1601 mm	1598 mm - 1601 mm
Track, rear (depending on rim size) (W101-2)	1603 mm - 1608 mm	1603 mm - 1608 mm	1603 mm - 1608 mm	1603 mm - 1608 mm	1603 mm - 1608 mm
DIMENSIONS INTERIOR					
Headroom with panoramic roof (front) (Maximum) (H62-1 SR)	1040 mm	1040 mm	1040 mm	1040 mm	1040 mm
Headroom with panoramic roof (front/rear) (H61-1SR / H61-2SR)	1002 mm / 932 mm	1002 mm / 932 mm	1002 mm / 932 mm	1002 mm / 932 mm	1002 mm / 932 mm
Passenger compartment width at shoulder height (front/rear) (W3-1 / W3-2)	1440 mm / 1429 mm	1440 mm / 1429 mm	1440 mm / 1429 mm	1440 mm / 1429 mm	1440 mm / 1429 mm
Leg room (front/rear) (L34 / L31-2)	1040 mm / 917 mm	1040 mm / 917 mm	1040 mm / 917 mm	1040 mm / 917 mm	1040 mm / 917 mm
Hip room (front/rear) (W5-1 / W5-2)	1390 mm / 1388 mm	1390 mm / 1388 mm	1390 mm / 1388 mm	1390 mm / 1388 mm	1390 mm / 1388 mm
GROUND CLEARANCE					
Ground clearance (at curb weight) (H106)	177 mm	177 mm	177 mm	177 mm	177 mm
Ground clearance (at curb weight + 1 person) (H106)	171 mm	171 mm	171 mm	171 mm	171 mm
Approach angle (at curb weight) (A116-1)	20,1 degr	20,1 degr	20,1 degr	20,1 degr	20,1 degr
Breakover angle (at curb weight) (A117)	16,2 degr	16,2 degr	16,2 degr	16,2 degr	16,2 degr
Departure angle (at curb weight) (A116-2)	26,6 degr	26,6 degr	26,6 degr	26,6 degr	26,6 degr
WADING CAPABILITY					
Wading capability depth at curb weight (at walking speed)	450 mm	450 mm	450 mm	450 mm	450 mm
STEERING					
Steering ratio (angle/angle)	15.8	15.8	15.8	15.8	15.8
Turning circle (Curb to curb)	11.4 m	11.4 m	11.4 m	11.4 m	11.4 m
Turning circle (Wall to wall)	11.8 m	11.8 m	11.8 m	11.8 m	11.8 m
Turns of steering wheel end to end	2.7	2.7	2.7	2.7	2.7
CHASSIS AND BRAKES					
Suspension front	MacPherson Suspension, Coil Springs, Hydraulic Shock Absorbers, Stabilizer Bar	MacPherson Suspension, Coil Springs, Hydraulic Shock Absorbers, Stabilizer Bar	MacPherson Suspension, Coil Springs, Hydraulic Shock Absorbers, Stabilizer Bar	MacPherson Suspension, Coil Springs, Hydraulic Shock Absorbers, Stabilizer Bar	MacPherson Suspension, Coil Springs, Hydraulic Shock Absorbers, Stabilizer Bar
Suspension rear	Rear multi-link Suspension with Coil Springs, Hydraulic Shock Absorbers, Stabilizer Bar	Rear multi-link Suspension with Coil Springs, Hydraulic Shock Absorbers, Stabilizer Bar	Rear multi-link Suspension with Coil Springs, Hydraulic Shock Absorbers, Stabilizer Bar	Rear multi-link Suspension with Coil Springs, Hydraulic Shock Absorbers, Stabilizer Bar	Rear multi-link Suspension with Coil Springs, Hydraulic Shock Absorbers, Stabilizer Bar
Steering	Electrical Power Assisted Rack	Electrical Power Assisted Rack	Electrical Power Assisted Rack	Electrical Power Assisted Rack	Electrical Power Assisted Rack
Braking system	Antilock Braking System (ABS) with Electronic Brake Distribution (EBD) and Electronic Brake Assistance (EBA)	Antilock Braking System (ABS) with Electronic Brake Distribution (EBD) and Electronic Brake Assistance (EBA)	Antilock Braking System (ABS) with Electronic Brake Distribution (EBD) and Electronic Brake Assistance (EBA)	Antilock Braking System (ABS) with Electronic Brake Distribution (EBD) and Electronic Brake Assistance (EBA)	Antilock Braking System (ABS) with Electronic Brake Distribution (EBD) and Electronic Brake Assistance (EBA)
Brake disc diameter (front) Brake: 18"	345 mm	345 mm	345 mm	345 mm	345 mm
Brake disc diameter (rear) Brake: 18"	340 mm	340 mm	340 mm	340 mm	340 mm
Brake disc thickness (front) Brake: 18"	30 mm	30 mm	30 mm	30 mm	30 mm
Brake disc thickness (rear) Brake: 18"	20 mm	20 mm	20 mm	20 mm	20 mm
Braking distance 100-0 km/h	36 m	36 m	36 m	36 m	36 m
VOLUMES					
Largest Luggage volume - First (V214-1) (Largest volume. Load height limited by the head lining. Front limited by vertical plane tangential to the rear side of the front seatback) Total (including V209)	1310 l	1310 l	1310 l	1310 l	1310 l
Largest Luggage volume - Second (V214-2) (Second seat up. Load height limited by the headlining. Front limited by vertical plane tangential to the rear side of the second seatback) Total (including V209)	480 l	480 l	480 l	480 l	480 l
Open Luggage Compartment - First (V211-1) (Second seat folded. Load height limited to upper edge of the front seatback or lower edge of the rear window) Total (including V209)	958 l	958 l	958 l	958 l	958 l
Open Luggage Compartment - Second (V211-2) (Second seat up. Load height limited to the upper edge of the second seatback or second window) Total (including V209)	404 l	404 l	404 l	404 l	404 l
Luggage volume, Separate Storage Areas in Luggage Compartment (V209) (Closed storage areas located around the luggage compartments, behind wheel arches, under the floor, or any other area)	51 l	59 l	59 l	59 l	59 l
Luggage volume, Separate Storage Areas in Luggage Compartment (V209-L) (Closed storage areas located around the luggage compartments, behind wheel arches, under the floor, or any other area)	102 l	102 l	102 l	102 l	102 l
Trunk volume (Front luggage volume) (V216) - US / all other	211 / 31 l	211 / 31 l	211 / 31 l	211 / 31 l	211 / 31 l
Trunk volume (Front luggage volume) (V216-L)	51 l	51 l	51 l	51 l	51 l
* liquid volume					
LENGTHS					
Cargo length from the first seatback to the tailgate measured at: - the height of the floor covering (L212-1) - the top of the first seatback (L214-1)	1685 mm / 1535 mm	1685 mm / 1535 mm	1685 mm / 1535 mm	1685 mm / 1535 mm	1685 mm / 1535 mm
Cargo length from the second seatback to the tailgate measured at: - the height of the floor covering (L212-2) - the top of the second seatback (L214-2)	896 mm / 489 mm	896 mm / 489 mm	896 mm / 489 mm	896 mm / 489 mm	896 mm / 489 mm
HEIGHTS					
Cargo floor height to ground (curb weight) (H203)	741 mm	741 mm	741 mm	741 mm	741 mm
Rear opening height (car center line) (H202)	630 mm	630 mm	630 mm	630 mm	630 mm
Cargo height (rear wheel center and car center line) (H201)	629 mm	629 mm	629 mm	629 mm	629 mm
WIDTHS					
Cargo floor width (between wheel housings) (W201)	1005 mm	1005 mm	1005 mm	1005 mm	1005 mm
Rear opening width (upper) (W205)	1022 mm	1022 mm	1022 mm	1022 mm	1022 mm
Rear opening width (Lower) (W207)	1059 mm	1059 mm	1059 mm	1059 mm	1059 mm
WEIGHTS/SCCANEIOUS					
Weight, kg (min-max, depending on setup) (Curb weight)* (MRO)	1977 kg / 2065 kg	1977 kg / 2065 kg	2021 kg / 2095 kg	2110 kg / 2185 kg	2110 kg / 2185 kg
Total Weight (Depending on type of engine, gearbox etc.)	2460 kg	2460 kg	2500 kg	2620 kg	2620 kg
Max trailer weight, Unbraked (Max)	750 kg	750 kg	750 kg	750 kg	750 kg
Max trailer weight, Braked (Max)	1500 kg	1500 kg	1500 kg	1800 kg	1800 kg
Aerodynamics, (Cd)	0.319	0.319	0.319	0.319	0.319
Aerodynamics, (Frontal area)	2.54 m ²	2.54 m ²	2.54 m ²	2.54 m ²	2.54 m ²
Aerodynamics, (Cd*A)	0.810	0.810	0.810	0.810	0.810
Max roof load	75 kg	75 kg	75 kg	75 kg	75 kg
* MRO = Mass in Running Order					