

EV FACT SHEET

Volvo XC40 Recharge

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2021 Volvo XC40 Recharge. Image: Volvo

INTRODUCTION

The Volvo XC40 is available in Australia as petrol, plug-in hybrid (PHEV) or pure electric (BEV) versions. The PHEV and BEV versions are denoted by the addition of the 'Recharge' badge. (Note: only the BEV version is covered in this Fact Sheet).

The XC40 Recharge BEV is Volvo's first full-electric vehicle, with overseas sales beginning in late 2020. Australian sales began in mid-2021.

The XC40 Recharge BEV is classified as a 'medium SUV'. Competitors for this space include its stablemate the Volvo C40 Recharge, Kia EV6, Hyundai Ioniq 5, the Tesla Model Y plus perhaps the Polestar 2 and Genesis GV6.

2022 updates: A crossover version called the C40 was introduced in 2022, along with a 2WD (front wheels) version of the XC40.

DRIVING RANGE

Australian test standards are currently in a state of flux, with the Australian GVG (Green Vehicle Guide¹) showing some vehicle driving ranges using either the old (and highly over-optimistic) figure derived using ADR 81/02 (based on the European NEDC test cycle) or the newer European WLTP test cycle figure. Unfortunately, it is also not easy to find out which test cycle was used to give a particular GVG figure. For around town, the WLTP figure is the best guide to driving range or, if doing mostly outer suburban to regional driving – use the US EPA figure.

National testing system range estimates			
Version	ADR 82/01 (Aust)	WLTP (Euro)	US EPA
FWD (69 kWh)	NA	425	NA
AWD (78 kWh)	NA	418	335

Table 1: Driving range estimates for the Volvo XC40 Recharge

DRIVING RANGE (continued)

Using the US EPA range, an XC40 Recharge should be capable of a return trip from the Melbourne GPO to Wye River (just past Lorne on the Victorian south coast) – provided neither the heating nor air conditioning were heavily used. For this sort of trip, charging options include either a 1 hour 7kW charge at the Lorne Visitor Information Centre, or a short DC fast-charge top-up at Torquay, Ocean Grove or Werribee. For further charging options and locations, visit:

<https://www.plugshare.com/>

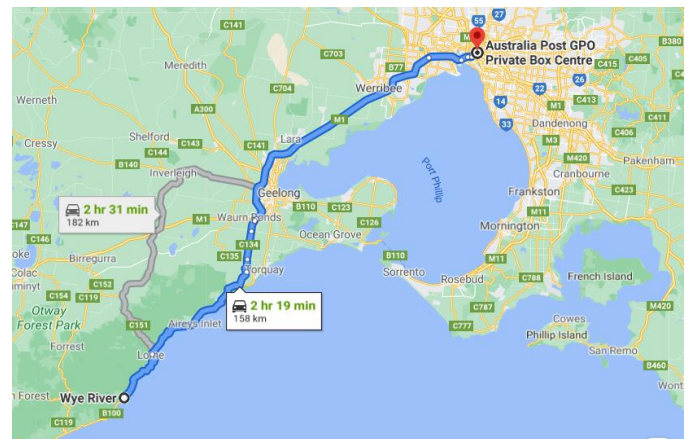


Image: Google maps

CHARGING SPEEDS/REQUIREMENTS

Charging port:

The XC40 Recharge is fitted with a CCS2 socket allowing it to charge via Type 2 AC chargers² as well as CCS2 DC fast-chargers.



CCS2 charging plug and socket

Notes:

- <https://www.greenvehicleguide.gov.au>
- The XC40 Recharge can be charged at any AC EVSE, however an adaptor will be needed to use the (few) remaining older EVSEs fitted with Type 1 (J1772) plugs.

CHARGING SPEEDS/REQUIREMENTS (CONTINUED)

AC charging:

Like all new EVs sold in Australia, the XC40 Recharge is fitted with a type 2 AC socket as part of the CCS2 AC/DC charge plug system.

Charging rates:

Single phase: maximum of 7.4 kW (32A)

Three phase: maximum of 11 kW (16A per phase)

Charging speeds and times vary on the capacity of the EVSE (Electric Vehicle Supply Equipment) it is connected to and the chosen battery size. Charging times for the XC40 recharge are shown in table 2 below.

AC: 0 – 100% time				DC: 0 – 80% time	
10 A (power point)	15 A 1 phase (Caravan outlet)	32 A (1 ph. Home EVSE)	16 or 32 A (3 phase public AC EVSE)	DC Fast charge (50kW)	DC Fast charge (150+kW)
FWD: 34h	21.25h	10.6h	16A: 7.3h 32A: 7.3h	80m	36m
AWD:38.5h	24h	12h	16A: 8.25h 32A: 8.25h	82m	37m

Table 2: Approximate charging times for the Volvo XC40 recharge

DC fast charging:

The XC40 recharge uses the CCS2 DC fast-charge connector and can charge at up to 136kW for the 2WD and 150 kW DC for the AWD.

This connector is fast becoming the majority DC fast-charge connector type in both Australia and overseas.

HOME CHARGING CONSIDERATIONS

General:

To get the shortest home charging time for an XC40 Recharge, an 11 kW three phase AC EVSE would be needed.

However, depending on your existing power supply and/or charging needs, a lower rated EVSE may only be practicable, or needed. (See notes below). Lower capacity EVSEs will increase charging times, as shown in table 2 above.

The XC40 recharge also comes with a Mode 2 portable EVSE for plugging into a 10A power point. Charging an XC40 Recharge from 0 – 100% with this EVSE will take around 38.5 hours.

Important notes for any EVSE installation:

1. High charging rates are generally not needed for overnight charging.
2. Homes do not normally have three phase AC connected.
3. Switchboard and/or electrical supply upgrades may be needed if your home or business is more than 20 years old. For more information on this item - read EV Information articles at EVchoice.com.au or see:
(a) Renew magazine edition 143. (EVSE wiring)
(b) Renew magazine edition 156. (EVSE buyer's guide)

SPECIFICATIONS

Boot volumes in litres: (1 litre = 10 x 10 x 10 cm)

- Boot - seats up: 413 L
- Boot - seat folded: 1,289 L
- Froot: 31L ('Froot': Front boot)

Dimensions:

- Overall length: 4,425 mm
- Overall width (mirrors folded/mirrors out): 1,910/2,034 mm
- Overall height: 1,651 mm

Battery:

- 2WD: 69 kWh (67 useable)
- AWD: 78 kWh (75 useable)

Energy consumption: (WLTP test cycle)

- 2WD: 18.3 kWh/100km
- AWD: 23.8 kWh/100km

Kerb weight:

- 2WD: 2,001 kg
- AWD: 2,158 kg

Charging:

- 1 phase AC: 7.4 kW max.
- 3 phase AC: 11 kW max.
- DC: 150 kW max.

Charge port location:

- Rear left side

Drive configurations:

- Front-wheel drive (FWD) or all-wheel drive (AWD)

Towing:

- FWD: 750/1500 kg
- AWD: 750/1800 kg

Performance:

Variant:	Max. Power (kW)	0 to 100km/h (Sec)
FWD	170	7.4
AWD	300	4.9

IMPORTANT NOTE

Always check all specifications with the manufacturer prior to any purchase. No responsibility accepted by AEVA or Bryce Gatton (EVChoice) for errors factual or due to reproduction in this Fact Sheet. Whilst all efforts are made to ensure the accuracy of the material in this Fact Sheet, manufacturers regularly make changes (often unannounced) to their model ranges and specifications.