

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 compact SUV. Competitors for this space include the Nissan Leaf e+, Kia e-Niro, Hyundai Ioniq 5, Mercedes EQA and the long-delayed (but soon to arrive?) Tesla Model Y.

DRIVING RANGE

Australian test standards are currently in a state of flux, with the Green Vehicle Guide¹ showing some vehicle driving ranges using either an equivalent to the old (and highly over optimistic) European NEDC test cycle figure or the newer European WLTP test cycle figure. Worse still, for recent additions to the Australian market the GVG often gives no data is given at all! Around town, the WLTP figure is the best guide to range or, if doing outer suburban to regional driving – use the US EPA figure.

National testing system range estimates (km)		
NEDC (Aust)	WLTP (Euro)	US EPA
450	400	357

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, it could be useful to do either a 1 hour 7kW charge at the Lorne Visitor Information Centre, or a 10 to 15 min DC fast-charge at Torquay, Ocean Grove or Werribee.

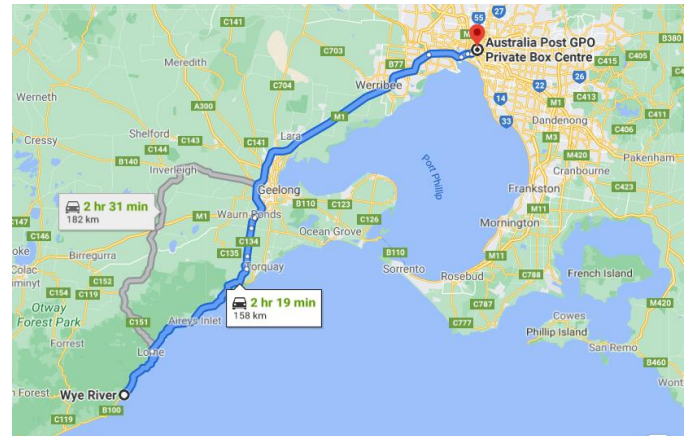


Image: Google maps

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.

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

Table 2: 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 150 kW DC. 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 home 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 is more than 20 years old. (For more information on this item - read articles in:
(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:

- 78 kWh (75 useable)

Energy consumption: (WLTP test cycle)

- 24.4 kWh/100km

Kerb weight:

- 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 configuration:

- Two motors, all wheel drive.

Towing:

- 1500 kg braked/750 kg unbraked.

Performance:

- Maximum power: 2 motors, 150 kW each motor
- 0 – 100 km/h: 4.9 sec

IMPORTANT NOTE

Always check all specifications with the manufacturer prior to any purchase. No responsibility accepted by AEVA or Bryce Gaton (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.