

# EV FACT SHEET

## Volvo XC40 Recharge

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Volvo XC40 Recharge. Image: Volvo

### INTRODUCTION

The Volvo XC40 is available in Australia as petrol, plug-in hybrid (PHEV) or pure electric (BEV) versions and is classified as a 'medium SUV'. 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.

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

**Mid-2023 update:** Volvo made changes to the battery sizes, motors and improvements to the energy efficiency as well as swapped the two-wheel drive version from front to rear wheel drive (RWD).

**Note:** Sadly, the longest range XC40 – the 82 kWh, RWD offered in Europe and the US is not available in Australia.

### DRIVING RANGE

Currently, the official Australian ADR 81/02 test cycle is based on the outdated (and highly over-optimistic) European NEDC test cycle. However few manufacturers now give this figure for their new releases. Instead they generally quote the more achievable ranges found using the newer European WLTP test cycle.

Therefore, to avoid disappointment always check which test cycle has been used when assessing an EV for your needs. As a rough guide, NEDC is generally 30% too high, WLTP a good estimate if doing mostly urban and outer suburban driving and US EPA the better guide if doing mostly outer suburban to regional driving.

### DRIVING RANGE (continued)

National testing system range estimates			
Version	ADR 82/01 (Aust)	WLTP (Euro)	US EPA
Pre mid-2023			
FWD (69 kWh)	Not rated	425	N/A <sup>1</sup>
AWD (78kWh)	Not rated	418	335
Post mid-2023			
RWD (69 kWh)	Not rated	460	N/A <sup>1</sup>
AWD (82 kWh)	Not rated	500	406

Table 1: Driving range estimates for the Volvo XC40 Recharge

Using the US EPA range, an AWD XC40 Recharge should be capable of a return trip from the Melbourne GPO to Stawell (in Victoria's central west) – provided neither the heating nor air conditioning were heavily used. For this sort of trip, charging options could include a short DC fast-charge top-up at Ararat, Beaufort or one of the multiple sites in and around Ballarat. For further charging options and locations, visit:

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

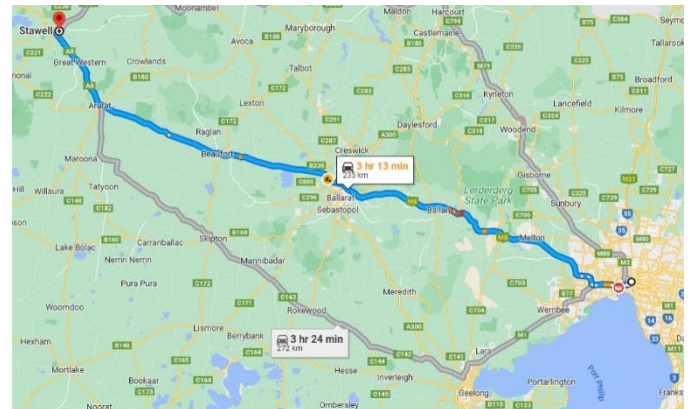


Image: Google maps

### CHARGING SPEEDS/REQUIREMENTS

#### Charging port:

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



CCS2 charging plug and socket

#### Notes:

1. 69 kWh battery not available in the US.
2. 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 (200+kW)
69 kWh: 34h	20h	10h	7h	70m	40m
82 kWh: 41h	23h	12h	8h	80m	32m

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 135kW for the 2WD and 200 kW DC for the AWD.

### V2X capability:

The Volvo C40 currently does not offer any form of bidirectional charging capability.

### Notes:

V2X is the generic term covering the options of getting 230V AC power from the battery and supplying it as:

- V2L: vehicle to load (230V power available from outlet in car)
- V2H: vehicle to home (supply home via special connection)
- V2G: vehicle to grid (supply home or grid via spec. connection)

## HOME CHARGING CONSIDERATIONS

### General

To get the shortest home charging time for a C40 Recharge, an 11kW 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 C40 Recharge also comes with a Mode 2 portable EVSE for plugging into a 10A power point. Charging the FWD with this EVSE will take around 34 hrs for a 0 – 100% charge or almost 39 hrs for the AWD.

### 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](http://EVchoice.com.au) or see:
  - (a) Renew magazine edition 143. (EVSE wiring)
  - (b) Renew magazine edition 156. (EVSE buyer's guide)

## SPECIFICATIONS

### Seating: 5

### 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: 4,440 mm
- Overall width (mirrors folded/mirrors out): 1,938/2,062 mm
- Overall height: 1,651 mm
- Ground clearance: 181 mm

### Battery:

- 2WD: 69 kWh (66 useable)
- AWD: 82 kWh (78 useable)

### Energy consumption: (WLTP test cycle)

- 2WD: 17.3 kWh/100km (Previously 18.3)
- AWD: 18.1 kWh/100km (Previously 23.8)

### Kerb weight:

- 2WD: 2,040 kg
- AWD: 2,192 kg

### Charging:

- 1 phase AC: 7.4 kW max.
- 3 phase AC: 11 kW max.
- DC: 135 kW (RWD); 200 kW (AWD)

### Charge port location:

- Rear left side

### Drive configurations:

- Two wheel drive:
  - Front-wheel drive (FWD): pre mid-2023
  - Rear-wheel drive (RWD): post mid-2023
- All-wheel drive (AWD)

### Towing:

- 2WD: 1500 kg braked/750 kg unbraked.
- AWD: 1800 kg braked/750 kg unbraked.

### Performance:

Variant:	Max. Power (kW)	0 to 100km/h (Sec)
RWD	175	7.3
AWD	300	4.8

### IMPORTANT NOTES:

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